

PINAR

A Milk-Processing Operation Based in Izmir,
the Aegean Region of Turkey

Volume IX

I

Country Background

Socioeconomic Overview

After a period of economic, political and social turmoil that culminated in a disastrous bout of stagflation in the late 1970's, a comprehensive set of stabilization and economic recovery measures launched in 1980 succeeded both in sobering the economy and turning it around. An inflation rate that exceeded 100% in 1980 was brought down to 20% by mid-1983. Real per capita income, after falling in 1979 and 1980, rose in 1981, 1982 and 1983. GDP growth exceeded 4% in 1982 and was heading up in 1983. Foreign trade was headed in the right direction. From mid-1981 to mid-1983 Turkey's exports doubled while imports remained level.

By 1983 the country was also heading back toward a civilian government and gradually evolving toward a democratic political structure. Terrorism and banditry, which had been rampant in the late 70's, particularly in the rural areas of the country, had largely been brought under control. The social tensions this violence had created had been alleviated and the results were evident in the small villages and outlying farms visited during the field research for this case history.

Relationship With the US

Turkey's relationship with the United States appears to be on a sound footing politically and economically. Evidence that this relationship is moving closer in productive ways came in June, 1983, when the National Science Foundation (US) signed a memorandum of understanding with the Technical Research Council of the Republic of Turkey. The five year

agreement established an organization of Turko-American scientists with a mandate to transfer technology "in order to increase agricultural and industrial productivity, help remove bottlenecks in the Turkish economy, and establish effective cooperation between the central government of Turkey, Turkish universities, and the Turkish industrial sector."

The Role of Agriculture

The role of agriculture in the Turkish economy is paramount. Of Turkey's 45 million people, 60% are engaged in agriculture. Agriculture develops 21% of the gross national income and makes a major contribution to Turkish exports. Turkey is one of the few developing countries that feeds itself, and there is no shortage of arable lands.

As a matter of policy, the Turkish government pays attention to agriculture. There are price supports for all of the country's major crops (tobacco, cotton, grapes, meat, sunflowers, soya, tea and olives) although support prices tend to be substantially below market prices. Fruit and vegetables, which do not have support prices and are allowed to respond to internal and external markets, make an important contribution to farmer income.

Turkey has an effective agrarian bank which conducts a far-flung network of supervised credit and, in 1983, disseminated \$2.2 billion in rural lending operations; \$523 million of that for agro-industry. The bank pays special attention to family farms.

The government also now encourages its network of national and regional universities, particularly those with agricultural faculties, to work with farmers and with agro-industry.

Finally, the government is engaged directly in some sectors of agriculture, including stock breeding (sheep, cattle, water buffalo and goats). It also has extensive operations in milk processing.

II

Company Background

Pinar is a member company of a conglomerate, Yasar Holding, with total annual turnover of about \$400 million. The conglomerate began as an industrial enterprise, mainly in the chemical industry, but moved into agro-industries in the early 1970s. The corporate philosophy prompting this diversification was the recognition by the chairman, Seljuk Yasar, that making use of Turkey's existing agro-economy as a basis for industrialization made sense both for the country and for the company. The strategy was endorsed by the Deputy Chairman, Ali Nail Kubali (a Ph.D in economic development from Washington University), who believes that the most effective way--and the least expensive in terms of hard currency--for Turkey to change its comparative advantage is to introduce technology of production and processing into its existing agricultural base.

Corporate Strategy

The corporate strategy demonstrated its soundness in the chaotic late '70s when most industrial firms in Turkey worked at 30% capacity, with the industrial enterprises of Yasar Holding no exception. Yasar Holding's agribusiness, however, continued to operate at full capacity with the result that Yasar Holding, as an entity, emerged from the economic wringer stronger than before.

Corporate History

Yasar Holding began its diversification process into agro-industry with an undertaking to produce Tuborg Beer, using Turkish barley and importing the most advanced technical know-how from United Breweries of Denmark.

The milk processing facility, Pinar, was launched in 1974. At that time, milk processing was a virgin area for the private sector. There was a number of government-owned and -operated milk processing facilities, but the managing director of Pinar notes, "They didn't work very well. We thought we could do better."

The reason Pinar thought it could do better was that its market surveys showed that the market for high quality milk products throughout Turkey was not being supplied adequately, and certainly not imaginatively. An example of Pinar's innovative approach to the market is its design of special products: for example, prepared salad dressings and packaged cream cheese, which are designed for Turkish workers and their families who have returned from industrialized countries such as Germany, where they got used to convenience foods.

On the production side, a Pinar survey demonstrated that the Aegean region, traditional heart of agricultural production in Turkey, had a good number of farmers either already engaged in or interested in livestock breeding. The task would be to work with these farmers to upgrade their cattle and to improve the quality and quantity of their milk. This became the company's main objective, along with the construction of a modern, technologically advanced plant, with relevant expertise imported from abroad.

Pinar has a licensing agreement with Dart and Kraft (US) for products and with Tetra Pak (Sweden) for packaging.

Equity Arrangements

Pinar has 900 shareholders. Forty percent of the equity is in the hands of Yasar Holding; 20% in the hands of another holding company and a bank; the remaining 40% is spread among farmers, both big and small.

The financial package to launch Pinar was put together in 1973 and construction of the plant started in 1974. The plant began operations in June of 1975, processing 12 million tons of milk that year. By 1983, the plant was processing 70 million tons.

Pinar operated at a loss only during its start-up year, 1975. It has been profitable every year since then, and its ROI has been impressive. With an investment capital of TL 300 million, profit in 1982 was TL 500 million.

Growth

At start-up in 1975, Pinar operations involved 9,000 farmers in 150 villages, 7 cooperatives and 50 big farms. In 1983, the company was working with 21,000 farmers in 296 villages. Milk intake in 1983 was derived 68% from small farmers, 18% from 38 cooperatives, the remainder from 155 large farms.

Future Plans

Pinar's plans for the future are to expand its successful operation based from the Aegean region of Turkey to the Mediterranean region of the country; to expand its own sales organization from the Aegean to other regions of Turkey (where presently it operates through distributors); and to step up its exports, primarily to the Middle East. Pinar now exports, via refrigerated trucks, to Kuwait and Saudi Arabia.

More fundamentally, Pinar's future plans are designed to solve the problems of its supplier farmers for whom dairy cattle alone is not a viable economic proposition. The company is already in the process of establishing a feed plant to supply farmers with quality feed at a reasonable price and plans to construct a meat processing plant so that farmers can raise beef cattle alongside their dairy cattle to produce a higher combined income.

III

Relationship With Farmers

Company Philosophy

The management principle that governs the operations of Pinar was articulated by its chief executive officer: "The farmer is the base of our enterprise. Our welfare depends on his welfare. The two are inseparable. We know that helping the farmer upgrade the quality and quantity of his milk, and offering him a dependable market for it, is not enough for his human welfare and for the development of the villages and of the region. We have to help solve the farmer's overall problems which are both economic and social."

And Company Practice

Pinar gave expression to its concerns from the beginning. While it was still constructing the plant, it announced the price it would pay for milk. Rather than take advantage of a fluctuating market that brought prices down severely during the summer, Pinar proclaimed that its price would be steady throughout the year. Moreover, the price that was offered was somewhat higher than the existing market price. In addition,

Pinar initially shared with the farmers its own forecast for milk prices on both the short and the medium term.

Pinar also announced that it would collect milk every day of the year and established a collection system to do that. This contrasted from the outset with the system of government-owned and-run milk processing facilities, where milk is not collected on weekends or holidays.

As one farmer put it: "The government plants run on bureaucratic time, not on cow time."

Also from the very beginning, Pinar supplied veterinary services--on cow time not bureaucratic time; checked out cattle feed for farmers for both quality and price; procured government certified seeds for forage, which an individual small farmer could not obtain on his own; instituted quality control procedures for milk; and produced a monthly newspaper designed for the farmer and his family. That newspaper, laid out mainly in comic strip style with text, deals graphically with any and every problem a small farm family faces in Turkey. It addresses both the men of the family who, in Turkey, do most of the outside fieldwork, and the women to whom, in most cases, the care of animals on the farm is entrusted. There is even a funny page with cartoons and puzzles.

The problem of literacy, which still exists among some adults on the farm, has not proven an obstacle. "There's always someone in the family who can read." Quite often that someone is one of the children, for whom reading the newspaper to parents is both a practical education and an important enhancement of value in the family. It is also a demonstration of the practical advantages of going to school.

In an even wider circle developing from the same center, the company sponsors an annual contest for school children throughout Turkey, who draw or paint scenes of the pleasures and joys of country life. The winning entry gets wide distribution in the form of a note card which the company distributes all over the country.

Pinar also provides 750 off-farm jobs in its factory, plus another 500 for an array of supporting services.

A Systematic Approach

Pinar has structured its relationship with the producing farmers into a three-layer system. The first layer consists of "collectors," who are assigned a territory that covers anywhere from one half dozen to twenty villages, and who, using their own cars or trucks, make the round of their villages each day to pick up milk from the farmers, and deliver it to the company's network of refrigerated collection stations. The company trains collectors in milk quality, ledger keeping, and accounting.

The second layer consists of "field representatives," who are assigned a region in which they supervise the collectors, but in which they also maintain their own direct relationship with the farmers.

The third layer consists of "inspectors," who fan out from headquarters and act as a triple check on the relationship between the company and the farmers. They look for any problems that may have developed between collectors and farmers, or among collectors, that have not come to the attention of the field representative, or that the field representative has not been able to solve. They also back up the field representative when economic or sociopolitical problems arise that the field representative cannot handle at his level of operation.

The Vital Link

The most important human link between the company and the farmer is the field representative, usually an attractive and energetic young man with at least a high school background and some agricultural education, who has to combine dynamism with diplomacy and a visible concern for the farmer and his problems with a controlled temper and a capacity for cool judgment. A successful field representative is regarded by the farmer as an improbable amalgam of son and consultant, expert and problem solver. Obviously, such men are hard to find, and Pinar goes to considerable length to recruit and train them.

Field representatives are selected primarily from responses to advertisements the company places in both regional newspapers and the dailies of Izmir. The ads are fairly explicit. They ask for men under 35 years of age, who have no restrictions on travel and have a driver's license. The preferred background calls for agricultural engineering, veterinarians, agricultural technicians, or health officers for cattle. A minimum requirement is graduation from high school. The company reports that it has had satisfactory results from high school graduates who have gone on to do their military service, especially if that military service resulted in some technical or vocational training.

What is not in the ad but becomes, in fact, a primary criterion for hiring a field representative, is that he must be a practical man with a feeling for people, and must be both sociable and trustworthy. The company goes to considerable trouble to check on a candidate's background, personal as well as professional. Field representatives are trained for three months--in the factory, in the company's lab, at milk

collection stations, and by visiting farmers in the company of an experienced field representative. Their training is backed up by a 50-page technical manual and a 25-page administrative manual.

After the three-month training period, during which they receive a basic salary, field representatives are remunerated with a salary plus commissions that relate to the quantity and quality of milk his region produces.

From the outset, a field representative's job has a sociopolitical dimension. He lays the base of his relationship with the farmers of a village by calling on the three leading personalities of the Turkish rural community: the mukhtar (an elected mayor); the imam (a religious leader sent by a central religious authority); and the teacher, who is appointed by the government. They, in turn, identify the other influential people in the village who introduce the field representative to the farmer

Occasionally, a cultural barrier has to be hurdled, and political resistance overcome. An imam can be concerned with what the relationship of the company will do to the role of women, especially since animal care falls mainly into women's domain. A mukhtar, or more often the teacher, can turn out to be a political firebrand with anti-capitalist notions, who sees private sector companies as class enemies, and is particularly suspicious of companies that are large and have international connections.

One field representative illustrated how he had solved such a political problem. He overcame ideological resistance by pointing out how an involvement with Pinar was important to the farmer and valuable for the village. He did this in a series of discussions to which he

brought the opponent's peer, with whom the company had already established good relations, from another village. He had clinched his arguments with the direct testimony of farmers with whom the company had worked over a couple of years.

This field representative noted that establishing relationships with the villagers is very much a two-way street, and stretches considerably beyond company services that are directly connected with milk production.

A Two-Way Street

On the day the researcher accompanied this field representative, two problems that had nothing to do with milk production cropped up in one village. One farmer had a problem with his olive crop, which he discussed at length with the Pinar representative, who promised he would think about it and come up with a solution by the next visit. Another farmer needed a particular cotton insecticide which he had been unable to procure on his own. The Pinar representative undertook to obtain it for him.

There are problems that cut even closer to the bone. At the economic level at which small farmers exist in Turkey, there is a temptation to save money by not feeding cattle enough. The result is a loss of either quantity or quality in the output of milk which, in turn, has an economic cost to the farmer. Explaining this cause and effect takes doing. Sometimes the representative can convey the message himself. On other occasions he works through the teacher or the mukhtar.

The "Collector"

An important ingredient in the field representative's array of duties is to choose, train, and supervise the "collector" for his areas. Collectors are independent contractors who work on a draw-plus-commission basis geared to the quantity and quality of milk they deliver to Pinar's network of collection centers. It is the collectors who pick up milk from the farmers every day, and it is the collectors who pay the farmers in cash every week. Since the collectors provide their own transport from the villages to the collection center, and the company pays them by check, they have to have some economic standing of their own. They also have to be entrepreneurial. Above all, they have to be dependable and trustworthy in their dealings with both the company and the farmers. Indeed, the financial and personal integrity of the collectors can go a long way toward making or breaking the company's relationships with the farmers.

Inevitably, problems do arise with some of the collectors. It is the job of the regional representative to catch these problems and repair whatever ruptures have been created as quickly as possible. The most desirable collectors, it turns out, tend to be young men from the villages whose family--father or brothers--are local farmers, with a stake of their own in milk production. This gives the collector a direct knowledge and involvement with both the farmer and the company, and adds to his own standing in the community as an entrepreneur who contributes economically to his own family and to the other families of the village.

IV

Effect On The Farmer

Relationships of the company with the farmers fall into three categories.

The first category consists of small farmers: in Turkey, these are farmers working between one and ten hectares of land, (one hectare = 2.5 acres) with most small farmers working one to five hectares.

The second category consists of cooperatives of such small farmers, with a membership that ranges from 200 to 500.

The third category is composed of large farmers whose total holdings range around 200 hectares, working with up to 300 head of cattle. Big farms usually produce their own forage which, as a general rule, small farmers cannot do because they need to devote the limited land they have to higher paying cash or food crops. Cooperatives are in the same position as the individual small farmer since they are primarily marketing cooperatives with some pooling of purchases but not of production.

A Small Farmer

A representative example of a small farmer is Mustafa Inang, of the village of Dagkizilca, who farms 4.2 hectares. He lives in a typical family compound of four houses grouped around a central courtyard of which one is occupied by him, his wife, his mother and two children, a twelve year-old girl and a ten year-old boy. Also, typically, the wife takes care of the farm's animals (this includes milking the cows), while Mustafa does the work in the fields. The children attend the public

school, which provides the mandatory five years of education, and help on the farm after school throughout the year and more intensively during harvest time.

Mustafa grows tobacco, grapes, olives, wheat and corn. He raises lambs and, at present, has three milch cows. He would like to have between fifteen and twenty cows, primarily because he trusts the steady and dependable market which Pinar provides. He says bluntly that raising milch cows was a doubtful enterprise in the past, not only because the market was uncertain and chaotic, but because sometimes the small purchasers to whom he sold his milk paid either late or not at all. His problem now is to obtain the credit he needs to purchase the extra cows; but he believes that, with Pinar backing and the economic base of his current livestock, cash and food crop mix, he can probably work himself up to his target. With fifteen to twenty cows, he says, he could send both his children to high school.

A Cooperative

An illustrative cooperative is the co-op composed of 270 small farmers of the villages of Begarasi and Yeni Bagarasi, total population 1,300 families, who formed their cooperative twenty years ago.

The cooperative has five directors and a general director who are elected each year and can serve a maximum of five years. The mukhtar of the village is an ex-officio director who can--and does--attend directors' meetings.

The Economics

Members of the co-op average farms of 1-2 hectares; grow tobacco, olives, wheat and cotton, and have from one to fifteen cows. Both the

members and the cooperative itself have prospered since the arrival of Pinar. Productivity has zoomed. With the help of Pinar's extension services, the co-op, which produced 60 kilograms of milk a day in the pre-Pinar period, now produces 2,000 kilograms a day. In part, this is a result of additional cows purchased by member farmers and in part it is due to the fact that cows that gave 5 kilograms of milk per day before company extension services existed now produce between 18 and 20 kilograms per day. Pinar's extension services included introducing to the cooperative Holstein cattle which Pinar brought from Germany and which the farmers bought, via an installment plan, over two years. The financing was extended by agricultural banks who considered the existence of Pinar as a dependable purchaser a sufficient collateral.

Sociocultural Effects

The cooperative itself exhibits the effect of its association with Pinar. It now has its own building, a whitewashed square hall that contains five desks, two adding machines, a filing cabinet, bookshelves and an overhead florescent light. The building is situated on the central square of the village facing the coffeehouse where village elections, including the election for the cooperative's directors, are held. The co-op has bought a machine for feed mixing and has acquired a truck. Most important, since the arrival of Pinar, it has been able to distribute dividends to its members which the members have used for four major purposes:

1. To buy more cows and build stables.
2. To modernize their homes with important additions like refrigerators.

3. To build or buy houses and furnishings for newly married children.
4. To provide more education for their children.

The village now has thirty of its children in high school, compared to thirteen before Pinar arrived, and is already sending about a dozen of its boys and girls to technical school, college, nursing school and military school.

"Another ten years of Pinar and we can send all our children to high school and some to universities," says the director of the cooperative.

Problems

There are problems. The basic economic problem is that the cost of feed is still too high, measured against the price of milk. The farmers argue that two kilos of feed should cost no more than the price they receive for one kilo of milk. This ratio does not obtain now but may when Pinar completes construction of its own feed plant.

The other economic problem is that interest rates are too high, although they are coming down. In June, 1983, interest rates for agricultural loans to small farmers stood at 20% for one year loans, 22% for loans of 3-7 years. The manager of the Agricultural Development Bank for the Aegean region said that the bank's target interest rate for small farmers is 10%, and that he thought this was achievable within a couple of years.

The main social problem seems to be that, as the milch cow population rises, most of the new work load falls on the shoulders of the women. The men concede that this does lead to complaints from their wives, but argue that, as the economic base expands for the family, they too have more tasks to fulfill.

"The quarrel goes on," says one of the co-op directors with a satisfied grin.

After the conversation with the co-op directors, the Pinar field representative notes a cultural change that is likely to have major implications for the long term.

"Before we started working here, these farmers didn't talk to strangers. They distrusted anybody they didn't know, often for good reason. They got cheated many times by outsiders who came to deal with them on their milk. Now, the Pinar collector who deals with them is practically an adopted son. Quite often, he stays in the village for the night, and any member of the co-op is happy to have him stay at his home. They are not afraid of strangers anymore. As you see, they are quite open now in talking about themselves, their problems, and their accomplishments. They really like visitors now, and I think that makes a big difference in the horizons of their lives."

A Large Farmer

An illustration of Pinar's effect on a big farmer is Ayhan Gulcuoglis of the village of Ilkkursun. His spread covers 100 hectares on which he grows cotton, barley, and hay and alfalfa for his 150 cows. He raises lambs as well. His cows, milked by machine, produce 830 kilograms of milk per day. He sells all his milk to Pinar, and reports that since the arrival of Pinar he finds his cows more profitable than the lambs. Pinar has been helpful in building up his dairy stock both in quality and in quantity. It has extended, in some cases, direct credit for new high-quality cattle, interest-free for three months, and payable in milk. The Pinar field representative visits the farm once a week. Ayhan Gulcuoglis has become a stockholder in Pinar.

Relations With Government

Pinar relates to the government at three levels: the village level, the regional level and the national level. In addition, the company has relations with the international private sector through its licensing agreements and its export activities, and relations with the international public sector through its connections with some of the activities of USAID.

The Village

Relationships at the village level have been described in Section III. In that context, the company would like to see an organization of farmers, especially small farmers. The government's Regional Development Organization feels the same way, and has tried to encourage an association of small farmers, if only because it would make government distribution of feed, seed, and tools easier to accomplish.

The National Chamber of Agriculture does exist, its beginnings in 1881 dating back to the Ottoman Empire. The Chamber was restructured as a modern organization in 1957, and had an important role in providing farmers with information on agricultural implements and techniques before development agencies, universities, and companies took over that task.

At present, the Chamber of Agriculture is mainly a political organization in the Turkish context: i.e. it negotiates with the government on matters of farmer interest, and meets with the leaders of both the political parties and the military services to brief them on agricultural problems and possible solutions to these problems. Its

concerns tend to be macroeconomic, dealing with such topics as irrigation systems, the cost of fertilizer, price supports, the level and cost of agricultural credit, etc. Under the law, all farmers, big or small, are members of the Chamber, with small farmers contributing 3% of their gross income, and big farmers 5%, as a mandatory membership fee.

Organizing the Small Farmer

While the problems that the Chamber addresses do, of course, affect the small farmer in a macroeconomic way, there is little direct contact between the Chamber and small farmers, and it is difficult for small farmers to comprehend in concrete terms just what it is they get for the money they pay to the Chamber. This militates against attempts to organize small farmers in a way that would have a more direct impact on their lives. Attempts to organize small farmers on a functional basis (such as an organization of livestock producers), or on a socio-economic basis (such as an association for the protection of private farm property), have been made but failed. The only exception are the marketing cooperatives described in Section III, and even they represent a limited segment of the small farmers in the country.

When pressed on the subject of organization at the village level, the answer from small farmers tends to be, "We don't have a leader." The Regional Development Organization maintains that it cannot provide leaders for such purposes; and the company feels, probably wisely in the Turkish context, that if it took a leadership role in such organizations, that role would be socially and politically suspect.

Perhaps this is an area for international intermediate organizations or institutions, although effective function in the sociopolitical and cultural milieu of Turkey is likely to be fraught with difficulties.

The Cooperative

Pinar's relationship with cooperatives is described in Section III. In addition, the cooperatives appreciate the off-farm jobs provided, and see themselves as potential shareholders as soon as their economic base makes this feasible - a development the company would welcome.

The Region

The company maintains three sets of regional relationship: the Regional Development Organization, the Agricultural Development Bank, and the agricultural faculty of the University of the Aegean whose campus is on the outskirts of Izmir, not very far from the Pinar plant.

The Regional Development Organization

It is part of the mandate of the Regional Development Organization to build up the livestock population of the region, and particularly to help bring about increased milk production. It does this mainly by working with the larger small-farmers: i.e., farmers who have 5 cows now and want to work themselves up to 60 cows. The Regional Development Organization fulfills its task by providing veterinary services; furnishing seeds for farmers to grow their own feed when they have enough land to do so; and assisting farmers in the construction of stables with a capacity of up to 60 animals.

The Regional Development Organization for the Aegean has reached 300 farmers in the ten years of its existence, and reports that the biggest spur for its activity has been the existence of Pinar and the dependable market it provides. Relations between Pinar and the Development Agency are cooperative, cordial, and close.

The Agricultural Development Bank

The Agricultural Development Bank, while in existence since the 1960s, had no involvement with agro-industry until 1978, when it studied a dairy operation in Italy and decided that there was a place for a similar undertaking in the Aegean region of Turkey. In 1979, the Bank broadened its policy to provide loans not only to small and big farmers for production purposes, but to agro-industrial undertakings, and to farmers or cooperatives for the export of agricultural products. Previously, the Bank's main problem with its loans had been the volatile and undeveloped marketing conditions for the farmer's output. That problem is in the process of being solved, in part by Pinar, and in part by the central government's concerted export drive which is channeling surplus agricultural output to markets in both Europe and the Middle East. The Bank is aware of the fact that for market purposes, and particularly for the export market, the main problem for the output of small farmers is quality control and packaging, and appreciates the role Pinar plays in the solution of both.

The University of the Aegean

The company's relationship with the University is a cutting-edge affair. In the past, universities in Turkey did not cooperate, collaborate, or deal with industry in any way. As the head of the agrarian faculty at the Aegean University put it:

Universities were closed to industry. The universities were afraid of industry, and industry, for its part, did not think of the universities as a practical resource they could use. Over the past five

years this has changed, and I find the change a healthy one. At this university we now have good relations with several industrial sectors and we have considerable working contact with Pinar. To illustrate, we are now constructing a laboratory for pilot projects and Pinar engineers and electricians helped us in the construction.

On the other hand, Pinar needed a particular filter for its factory that had to be imported. The government at first said no, then asked us for an expert opinion. We checked it out and agreed with the company. Pinar got its import license.

For the medium term, we are now working with the company on a research project to produce an infant formula for calves based on Turkish raw materials.

For the long term, we could work with the company on new products; for example, new cheese varieties, where we could do the laboratory research, then set up a joint venture with the company for pilot projects to produce the new product in quantity, and finally hand over the commercialization of the product to the company.

Also, under the general direction of the university, we could address some of the personnel problems that now exist. We could develop training systems for such technicians as master cheese makers, master butter makers, master yogurt makers, who are needed in the industry. At present, no training institutions exist for personnel categories between the factory worker and the engineer. We could establish a vocational school for milk industry technicians.

Problems in Company-Government Relations

Despite these generally cooperative relations between the company and the government and its institutions, problems do exist. They revolve primarily around two issues.

The first is unfair competition from government-operated milk processing plants. There are now 36 government-owned and -operated milk processing plants in Turkey with a total installed capacity of 270 million liters a year. Inefficiency in government plants, however, is such that less than 30% of the installed capacity is being used. (Pinar, with an installed capacity of 70 million liters per annum, uses close to 100% of its capacity.) This inefficiency by the government-operated dairies is compensated in three ways, each one representing patently unfair competition for the private sector.

1. The government dairies pay lower interest rates to government credit institutions.
2. They make no profit, and their losses are made up by the taxpayer.
3. They have a monopoly on institutional sales to such organizations as the army, the police, and the national hospital network.

If the private sector did not have to deal with such unfair competition, it could expand, making possible economies of scale that would lower the price of the product. At present, Pinar products are largely confined to the upper end of the market. With economies of scale, the quality product put out by Pinar could reach a broader range of the population.

The second major issue between Pinar and the government is the government's monopoly on artificial insemination. Were it not for that

monopoly, Pinar would be in a position to import frozen semen from the United States and introduce artificial insemination to all the farmers with whom it is in direct contact.

As the managing director of Pinar points out:

We do have a representative in each village who collects milk every day. We could send with him a person qualified to administer artificial insemination. In Germany, the Maegli Company, who also collects milk from the farmers, supplies its representative with a doctor's bag that contains gloves and the appropriate injections and he administers the artificial insemination. Israel has a similar project using imported semen. There is no reason why we cannot do the same. It would speed the upgrading of our cattle and the yield of the cows, benefiting both the farmer and the company. The same principle applies to beef cattle. At present, however, the entire artificial insemination program is restricted to government officials who proceed in their own way, at their own pace. It is a slow and cumbersome pace. It also makes the farmer dependent on the government instead of encouraging his own entrepreneurial instincts.

Relations with the US

Pinar's relationship with the United States has its personal base in the fact that both the Deputy Chairman of Yasar Holding and the General Manager of Pinar received their graduate education in the United States. Indeed, the two first met in the US at a special training program for foreign students at the University of Colorado. The fellowship under which Pinar's chief executive officer got his US training was provided by AID. At that time, he was an official in the public sector. He is convinced that fellowships of this nature provide valuable seed capital for human resources and strongly advocates that they be furnished for junior and middle executives in the private sector as well as in the public sector.

His experience in both the public and the private sector also leads him to advocate that the US use its AID resources and its political

influence, where feasible, to encourage the private sector whenever and wherever possible, and to persuade the Turkish government to withdraw from productive undertakings that the private sector can do as well or better.

Specifically, he would like to see some AID funds made available for the import of high yield cattle, the import of frozen semen for artificial insemination administered by the private sector, and the loan of technicians with expertise in veal production.

He would also like to see more AID scholarships for technical training in the milk industry or, for that matter, in other industries in the private sector. And he would like all of this to happen quickly.

"In Turkey today," he says, "we are ready to move, and we want to run, not walk."

VI

Policy Implications

For The Company

The company is aware of the fact that its own success depends not only on the increased population of milch cows it can induce and the higher yield and quality of milk it can help farmers produce. It knows that in Turkey, for small farmers, an economically viable and developmentally desirable farm requires an appropriate mix of livestock and crops, with a balance of food and cash crops. It knows, as well, that achieving this mix and this balance calls for sociopolitical and cultural skills as well as economic organization and technical expertise. Its current plans call for a broad and diversified production base that would provide a market, and act as a technology transfer agent, for such integrated development.

What should probably be added to the company's plans is a systematic effort to broaden its existing equity base to include among its shareholders as many farmer cooperatives and individual small farmers as is feasible, given economic realities.

For The Community

A prime prerequisite would appear to be streamlining operations of the Regional Development Organization so that its activities relate to the realities of farm life rather than to the organizational convenience of the bureaucracy.

In addition, there seems to be a consensus that it would be desirable for small farmers to form an organization or association that could deal effectively with both public and private sector institutions. The driving force of such an organization should clearly be a community leader independent of the traditional triad of mukhtar/imam/teacher. Who would provide the inspiration and who would devise the organization of such a movement is an open question. Apparently, no national intermediate institutions exist that can take on the task. For an international intermediate institution to take it on would constitute a delicate and complex challenge.

For The Host Country

While the pioneer work that the government has done in developing the dairy industry in Turkey is both appreciable and appreciated, perhaps the time has come for the public sector to divest itself of its milk producing plants. Such divestiture would save taxpayer money, lead to substantially increased use of plant capacity, and make possible economies of scale in the private sector that could lead to lower prices and wider distribution of quality products.

The government would probably also be well advised to relinquish its current monopoly on artificial insemination, to make possible a more rapid dissemination of this important technique.

Government resources, both financial and technical, could be concentrated instead on intensified irrigation projects, for which there is still a great need in all regions of Turkey. The country does not lack water resources; but, at present, only 25% of the land that could be supplied with adequate water for optimum agricultural output by appropriate use of rivers and dams is, in fact, irrigated. Providing an expanded irrigation system would quickly increase agricultural output for domestic consumption and better nourishment, and for export with the concomitant contribution to the country's balance of payments.

Finally, price supports for basic agricultural products that more closely approximate market realities are desirable. At present, for example, the support price for cotton is TL70, as against the market price of TL150.

For The Donor Country

For the United States, the recommendation to provide scholarships for junior and middle management in the private sector seems like an excellent idea.

AID funds earmarked for the importation of high yield cattle and/or frozen semen from the US also appear reasonable.

Another suggestion made by Pinar managers, that scientists be given an economic education, is an idea that seems to make sense.

Finally, the US can exercise what persuasive powers it has to move the Turkish government toward a policy of letting the private sector do what it does efficiently and effectively, while concentrating public sector attention on infrastructure undertakings, both economic and social, that are beyond the private sector's resources or competence.