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# "Made in Kyrgyzstan": Innovative Approaches to Sustainable Industrial Development

Ulan Kasymov Valeria Nikonova

New economic conditions in Kyrgyzstan today demand new approaches to industrial development. Huge, old plants and factories built in the Soviet era have collapsed, increasing the country's poverty level and the number of jobless people, especially in mountain regions. Lack of finances, poor management, privatization, and the breakup of the centralized industrial system have led to a decline in industrial production in Kyrgyzstan. Industry in the Kyrgyz economy decreased from 62% in 1990 to 16.1% in 2004, as a share of gross domestic product. This economic decline caused disparities between lowland and highland development, and resulted in the migration of rural populations to towns, especially from mountain regions isolated from the outside world. Under such conditions there is a great need to establish a liaison between lowlands and highlands. This role can be played by a network of new small-scale industries based on the obviously high potential of mountain regions. Small investments based on local natural and human resources, innovative approaches to national traditions, and new equipment, management, and marketing adapted to the demands of the modern market—these are essential elements of such industries now appearing in the Kyrgyz market, and the steps forward to creating the "Made in Kyrgyzstan" brand. But to what extent is this direction in industrial development successful and sustainable?



Shoro national nomadic drinks

The Shoro Company, founded in 1992 just after the Republic achieved its independence in 1991, has become a symbol of the new trend in small-scale industrial development. Shoro is producing non-alcoholic drinks, with the main production facility located in Bishkek, and 2 branches in the south of the Republic, in the towns of Osh and Jalalabad. A plant was also opened in Kazakhstan 2 years ago. Along with mineral and spring water for the local and regional market, Shoro is developing production of national drinks based on the ancient traditional technology of nomadic Kyrgyzstan (Figure 1).

# Industrial development: for mountains as well

Shoro is an example of a small industry. About 1200 employees work in the Bishkek plant: 65 administrative staff, 600 involved in trade, and 500 involved in the production process. Production is based on energy and coal. Energy consumption varies during the year (250,000 kW per month on average). Electrical energy in Kyrgyzstan is generated by hydropower stations on big mountain rivers and distributed to all regions through a centralized system. However, there is a problem with stable energy provision for mountain regions caused by the destruction of the energy supply system, which has not been repaired for many years. This is one of the main reasons for industrial concentration in towns nowadays, where the energy supply system is much better. Another reason is that Shoro plants are situated closer to customers of national drinks, while villagers produce such drinks for home use themselves.

But the Shoro Board of Directors is developing options for constructing plants in mountain regions, although not for full-stage production. These plants could be profitable for production of semiprocessed milk articles, for existing or new national milk products in the future. The owners of the company pay much attention to the whole process of national

FIGURE 1 Promotion of Shoro drinks based on the logo "We want you to live long!" Taabyldy Egemberdiev, President of the Shoro Company, underlines that the "company foundation 13 years ago coincided with the period when national self-identification was rapidly developing and, as a result, national products started to win over customers quite quickly." (Photo from Shoro archive)



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"The quality of Kyrgyz milk is appreciated by many milk product producers in other CIS countries as well: it contains more fat than Kazakh milk. Moreover, the alpine Kyrgyz pastures are rich in nutritious elements that also give milk a special taste." (Larisa Rudakova, microbiology specialist and Head of the Shoro laboratory)

drink production, from ingredient selection to packing and trading equipment. Drinks used for centuries in nomadic people's lives now have new "soft" taste characteristics (aimed at different customers) and a longer shelf life, from several days to half a month or even several months for separate kinds of products (without use of preservatives). This has shattered the stereotype of these products being for domestic use only. Unique equipment was developed for the entire production process. For instance, the production capacity of equipment for maksym (a drink based on spring water and grain crops) reaches 70 tons per day (Figure 2).

Ingredients used in production of different national drinks (wheat, corn, barley, millet, based on spring water, cow's, or mare's milk) have been important for nomadic nutrition. All of them are brought, according to the season, from different regions where grain crops and milk have the most appropriate quality for the Shoro trademark. This was determined by testing ingredients for 4 years in the Shoro laboratory. Thus farm households in the northern regions (Issykkul and Chui) provide the best barley and wheat, while farms in the South (Jalalabad) provide the best corn.

FIGURE 2 The modernized packing process in the Shoro plant. (Photo from Shoro archive)



Mare's milk, which is the main component of *kymyz*—a favorite drink in Kyrgyzstan and Kazakhstan—is obtained from shepherds in 3 mountain regions of the Naryn Oblast, eg the Song-Kul region with a mountain lake, which is situated above 3000 m. Such cooperation generates a steady income for 179 households providing mare's milk and for those who provide grain—a total of 625 households. Previously, all these farmers had problems selling their products because they lived far away from regional centers. Hence they survived on subsistence farming, with an almost complete absence of cash transactions.

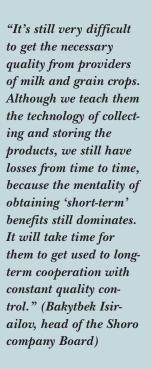
### **Meeting production challenges**

Although Shoro has steady suppliers, there is still a problem with the quality of raw materials, which is unstable, primarily as a result of poverty. Often people do not have the means to make timely repairs of storage facilities or sow grain crops in the case of hail, etc. The few sources of income mountain farmers have make it seem too risky to them to invest in longterm projects, where benefits will not be available immediately.

Shoro has therefore developed a system for working with farmers. In order to get the best possible quality, Shoro representatives organize meetings to consult with farmers on the stages of producing, collecting, and storing grains and milk. Farmers actually have a great interest in working with Shoro as a permanent buyer of their products, and try to enhance the level of agriculture and livestock management. The company has its own system of incentives for suppliers. At the end of every season, the farmers who have provided the best-quality milk receive gifts from the company. Shoro representatives also supply linkage to centers that provide mountain farmers with basic essentials at minimal prices. Shoro has participated in different projects. One, for instance, was in cooperation with the UK Department for International Development (DFID) and the Kyrgyz Rural Advisory Service (RAS), where Shoro provided corn seeds and financial support for farmers in a mountain village in the Chui region in an experiment to find alternative places to grow corn.

<image>

**FIGURE 3** Mares thriving on rich Kyrgyz mountain pastures; their milk will be used to produce *kymyz*, a favorite Kyrgyz and Kazakh drink. (Photo by Valeria Nikonova)



Products from mountain regions have a great potential (Figure 3). According to Shoro representatives, Kyrgyz *kymyz* is very popular in the Kazakh market, although they have their own "steppe *kymyz*." Doing research on the positive influence on health of national drinks, specialists in the laboratory proved in particular that *maksym* can be used in treatment of gastrointestinal tract diseases.

Another local producer of national drinks is the Artezian Company, Shoro's main competitor. The assortment of Artezian drinks differs from Shoro's, and has won some of its customers. It is thus clear that Shoro started a new trend in the national food industry, which can succeed under certain conditions in the new economic situation.

## New Kyrgyz felt products

The tradition of felt making is rooted in the early history of nomadic Kyrgyz culture and is still transmitted from mothers to daughters in the making of clothes, carpets and other items for home use, as wool is one of the main raw materials available in the high mountain regions of Kyrgyzstan. Wool processing has become the main activity for many rural women, especially in winter when they have more free time. It has generated a number of small felt-producing enterprises. But most women prefer to use traditional technologies and design; most of the products are of poor quality for mass consumption. Meanwhile, some producers are starting to go beyond "home-made" production and the local market, developing new techniques of felt making.

For instance, the Bukon design studio is producing about 50 types of new felt products, specializing in felt clothes and women's accessories (Figures 4 and 5). Women in the workshop use different technologies, experimentally creating new combinations of felt with such materials as silk and cotton, getting ideas after participation in workshops and international exhibitions (Figure 4). The studio is situated in Bishkek, with jobs for 15 young women from different regions. In the same building there are 2 other craft workshops, producing new felt products of different types—felt dolls and felt sover-



FIGURE 4 Creating wool patterns for future scarves. (Photo by Valeria Nikonova)

"Before coming to Bukon, I worked in a sewing workshop, where conditions were bad because of constant noise, cold in winter, and uncomfortable workplaces.... Now I can express my creative potential and make our traditions live while making new felt products. I also have a higher salary: we have permanent clients for whom we make felt clothes on request." (Mahabat Isaeva, felt mistress)

eigns. Thus people working in 3 different areas support each other by exchanging ideas and experience.

In the words of Aidai Asangulova, the head of the studio, the women have developed their own standards of quality, although she stresses that it is very difficult to establish very strict standards for handicrafts-every hand-made article is unique. It is easier to control the quality of raw materials (wool bought in Tokmok, a small town close to the Bishkek factory, and from private producers), amounting to 100 kg per year. There is still the problem of permanent selection of the best wool provider. The best wool in Kyrgyz regions is produced for export, and not for domestic demand, as small-scale enterprises do not generate great demand. Hence it makes more sense for wool producers to sell on the external market.

Working with local shops, the Bukon studio also supplies products to Switzerland, Germany, Taiwan, Russia and the USA. Aidai, from the Issyk-Kul region, has established a workshop in Bishkek. She explains that her main customers are citizens with above-average incomes and foreigners who find in such felt products a combination of traditional techniques and modern innovation. But she notes, "it is difficult to work with young women in the village, they have much homework and they can be stolen (it is a national tradition to steal a bride) any time." In the coming month, Aidai plans to register their own trade mark. In recent years several seminars and handicraft workshops have been organized by Swiss organizations such as Helvetas and the Central Asian Mountain Partnership (CAMP) for the purpose of training women in the improved technology of wool processing (cleaning, felting), dyeing, and protecting felt against insects, based on the use of natural material (herbs), new designs, and technology. Aidai's bosses took part in one such workshop.

### Conclusions

Shoro and the felt enterprises cannot be said to be driving forces of the Kyrgyz economy with a broad impact on industrial development. But they do show a trend towards an alternative industrial strategy consisting of many small-scale plants or workshops. Time is still needed to increase the number of such enterprises and properly supply different niche markets; the sustainability of this economic development in the country will become clear in due time.

What is obvious now already is that the potential of the country's mountain regions is being used in a sustainable way. As these industries were created on the basis of local resources, they will promote the national interest in the long term through a new "Made in Kyrgyzstan" brand on the domestic and external markets. Other factors crucial for Kyrgyzstan at the current stage of developing sustainable small-scale industry are:

- Minimal ecological pollution by comparison with large plants;
- Creation of niche market production;
- Establishing connections between towns and rural regions that can lead in the long term to recovery of the economic balance between the highlands and the lowlands;
- Income generation for mountain producers that decreases migration to towns;

**FIGURE 5** Women's slippers combining traditional knowledge and strikingly modern design. (Photo by Valeria Nikonova)

- Healthy and eco-friendly national products as well as low prices, in connection with exported products, are the basis for increasing popularity on the local market;
- Support for adapting traditional products to the demands of the modern market (Figure 5).

At present, however, there are some obstacles to industrial development. One is the low level of strategic development planning in agriculture and, as a result, the poverty of mountain inhabitants, which leads to quality problems with the raw materials supplied. The other is that there is no common marketing strategy in promotion of national products. This sometimes makes it difficult to sell outside the domestic market. For instance, there is no research on demand in neighboring countries, and no facilitation of trade procedures. This should be kept in mind for the future. Indeed, as underlined by Erkinbek Jamanbaev, a consultant with international experience and a member of a project group for methodology development for the National Poverty Reduction Strategy, "production of national ecologically friendly products is a prospective direction for Kyrgyzstan's industry. Prices for such products are much higher than for GMOs, for



instance, and on the international market, the margin can obviously be considerable. However, ecologically friendly products can be produced in other countries too. I think it's mostly a question of positioning and differentiation on the global, competitive market—promotion of the 'Made in Kyrgyzstan' brand. Such producers can become key exporters of local goods outside Central Asia, but only under certain conditions: adequate management, adequate marketing, and adequate technologies."

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