

# Rural Transition and Agricultural Vocational Education in the Context of post-socialist Transformation

A regional study from Kyrgyzstan

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The transformation from soviet-communist rule towards democracy and market economy affected and affects all aspects of everyday life in Kyrgyzstan. While economic and democratic reforms receive the lion's share of western attention and donor support, other spheres – though as important for sustaining and increasing the well-being of the Kyrgyz people – hardly get any. One of these spheres is vocational education. Although the need for reforms is obvious, they are progressing slowly. The present article deals with the special case of agricultural vocational education, assesses bottlenecks and potentials of the present situation. It argues for the importance of vocational education, especially given the drastic changes in agriculture over the past decade.

## 1. Transformation experiences in Kyrgyzstan

The past nine years of transformation so far led to enormous changes and – unfortunately – a pronounced decrease in the well-being of a majority of the Kyrgyz population. Achievements from the Soviet era cannot be maintained, especially those in the spheres of health care, education, culture and social security. The privatization of the economy through an ambitious reform agenda and supported by IMF and World Bank did not lead to a stable growth yet, right the opposite. Industrial production almost collapsed, unemployment exploded, GDP fell drastically and is reaching now, with a slight recovery since 1996, about 70% of its pre-independence value. Agriculture became again the mainstay of the economy, contributing roughly 40% to GDP and 50% to employment.



Agriculture will remain important - at least in the short and middle run.

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Since 1995 KSAP is supporting the establishment of an agricultural advisory service in Naryn Oblast, since 1999 in Jalal-Abad and Yssyk-Kul Oblast as well.

Kyrgyzstan, with its rough topography, small size, limited internal market, and lack of natural resources (except for a large gold deposit and abundant water), is of little interest for foreign investment. The improvement of the present situation, economic growth and thereof derived a possible increase in well-being depend on best utilisation of Kyrgyzstan's endogenous potentials. Agriculture, recovering from a "downward spiral of declining output, worsening productivity, retreat of farms from marketed transactions into self-sufficiency, and falling earnings in money and kind" (World Bank), has already taken the lead and is growing strongly since 1997. Tourism, though still on a low level, might be another "engine of growth" and provider of employment.

## 2. Vocational education in Kyrgyzstan

Today's educational system (see Figure 1) has its roots in the 1950ies. Pupils enter school at age six or seven for nine years of compulsory schooling. After that, there are three possibilities: a) to enter a vocational school or lyceum for up to 3 years, b) to continue general education (in order to obtain a degree that allows to enter a university), or c) to drop out (which does a majority of the rural youth).

Countrywide roughly 30'000 students receive "rapid training in the field of any blue-collar profession" (law on education) at 115 vocational schools. Lyceums provide them with a diploma of general education too, i.e. the graduates are allowed to enter a technical college or university. 61 vocational schools offer agricultural professions. Specialised secondary education takes place at *technicums* (technical colleges), all in all

49 institutes with 20'000 students. There are six agricultural technicums. Higher education is provided in 43 universities with roughly 120'000 students; many of these institutes were only recently founded. There is one agricultural university, the Agrarian Academy. On a national level, calculating with these figures, 70% of students are enrolled at universities, 12% at technicums, and 18% at vocational schools. This reflects the preference of most Kyrgyz people for higher education, which results in a low profile of vocational schools. This is a heritage from Soviet time.

In Soviet time, this vocational education (VE) system met the needs of the economy well. The high degree of specialisation allowed to clearly define professions. Tailor-made programs were developed; VE was a rather straightforward matter. This especially holds true for the case of agriculture. Simple workers, the majority of people involved in agriculture, were educated in vocational schools in a multitude of narrowly specialised professions. Specialists with an in-depth knowledge of certain topics (as mechanics, accountants, etc.) were educated at technicums, while at university level collective and state farm leaders and people for the strategic management of farms were formed. Since most of these specialised jobs are no longer in demand (especially in agriculture), the need for a reform of the VE system is obvious.

Curricula and teaching material were mainly developed and produced in other republics of the FSU (e.g. curricula in St. Petersburg); the institutes for the education of teaching staff too were out of the country. Kyrgyzstan as an independent state therefore was lacking the institutions and capacities necessary for reforming the VE system. The respective bodies and

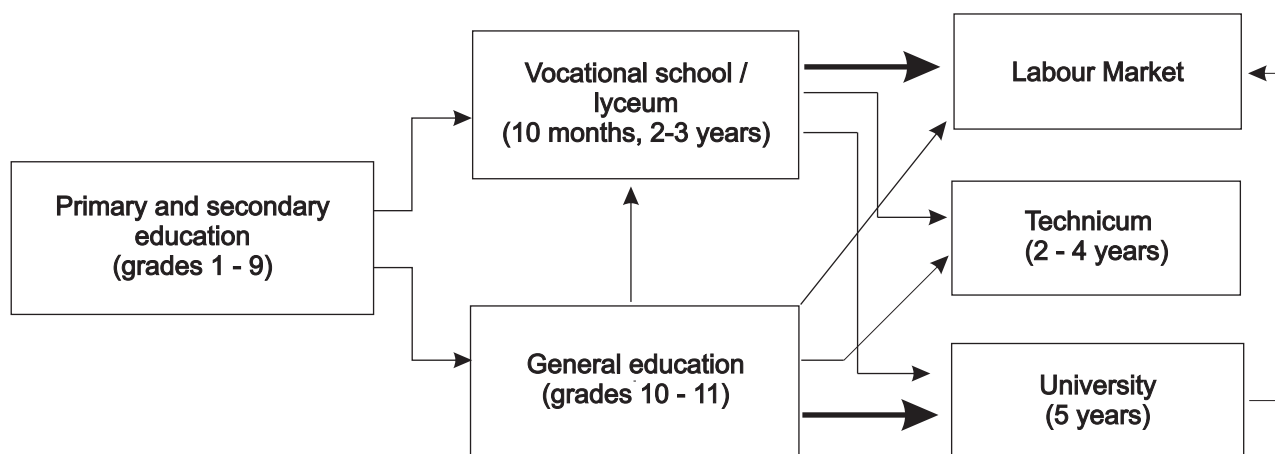


Figure 1: Vocational, specialised secondary and higher education in Kyrgyzstan

expertise had and have to be built up still. Heavy financial problems further impede a reform. In a period in which investments in education would be crucial for a future development, there was and is not enough money available to maintain the standard of the previous system nor for adjusting it to the new situation. The educational system in 1999 disposed of only 30 % of the 1990 finances! This decrease resulted in a drastic deterioration of its performance and quality. "Mini-reforms" are carried out, like the occasional revision of curricula or introduction of new professions or study programmes, but they are not coherent and sometimes even contradictory. The president's wish to increase competition among educational institutions leads to overlaps and duplications. Especially the *technicums* have to find their role and position.

### **3. Naryn Oblast – the study region**

#### **3.1. General overview**

Naryn Oblast (= province), a mountainous region slightly larger than Switzerland, is a marginalised area. 90% of its 260'000 inhabitants live in poverty (UNDP). Except for the five district centres, agriculture is the only occupation attainable for the rural population who was especially affected by the loss of jobs in industry and services. Few work in public service or as petty traders or drivers. It is pure necessity that many people started to cultivate a little land. A large share of present day smallholders has no agricultural background and would change their occupation when another is available. These people just try to survive at the moment.

From an agro-ecological point of view, Naryn Oblast is a livestock area. High altitude, long winters and little precipitation impede crop production. 60% of the area are pastures, cultivated lands amount to only 3%; the remaining areas are badlands.

#### **3.2. Agriculture**

Agriculture in Naryn experienced drastic changes and is still in transition. 56 state or collective farms existed before independence, cultivating between 1'000 and 5'000 hectares of arable land. However, because of the natural conditions, only fodder crops were grown (barley, esparsette, lucerne), and the focus was on animal husbandry, mainly sheep. On small household plots, people grew potatoes and some vegetables. The Soviets established a huge wool sheep industry that led to considerable degradation of the pastures and de-

pendencies of fodder imports. The system was highly labour-divisional and asked for a large number of very specifically trained agricultural workers.

Today, smallholder structures prevail. All former sovkhoses and kolkhozes have been dissolved and their arable land and livestock have been distributed among the inhabitants. A family typically received between two and four hectares of land, a few sheep, and one or two cows. Most farms lack machinery and have to rent it. Fertilisers, quality seeds or agro-chemicals are hardly used. The number of sheep drastically decreased from roughly 2.4 million to 600'000 heads. The number of cattle, horses, and poultry, however, increased slightly. Sheep still are the most important species but production shifted from wool to meat, and is now driven by subsistence targets. Breeding techniques are hardly used; thus the quality of sheep and other livestock breeds decreased, wool quality is poor, meat or milk yields are low. Livestock health often is bad, due to the absence or high cost of veterinary services.

Crop production became much more important than before. While the area under cultivation remained stable, the crop mix drastically changed. First priority of most farmers is to produce wheat and potatoes for self-consumption. The cropping techniques are not sustainable; e.g. crop rotation is hardly applied. The soil fertility is decreasing and crop yields, which were reported to be good in the first few years after independence, now are low. Weeds are a huge problem, people cannot afford herbicides; and other techniques of weed control do not seem to be known or are not used. Poor seed quality aggravates the situation.

Farm management is a new topic for all farm households and is given little effort. Self-sufficiency considerations predominate over profitability. This is understandable, given the low internal market demand, the low purchase power of the rural population, and the high costs for transportation of surplus production to urban areas. Marketing is considered an important activity but not carried out yet by the farmers. If people sell, then they do it to traders buying goods at the farm gate and selling it in Bishkek or other areas. The prices paid by these traders are usually fairly low.

#### **3.3. Age- and sex-specific agricultural activities**

The men and women have different functions and tasks in the agricultural works of a family, as do the younger and older people. Women are highly involved

into agriculture; they do the largest amount of manual labour. Generally, women are responsible for the chores in and around the house, including gardening, feeding small animals and milking cows. Men work in the fields, take care of the livestock and perform the machinery work. Decisions are made by the elders. Young family members are sometimes treated like farm-hands. They do the hard work but are not involved in decision making. Interestingly it is the middle-aged women who show greatest interest in farm management and planning issues and do most of the respective work. Processing is almost entirely done by women.

#### 4. The situation at vocational schools in Naryn Oblast

This chapter is the result of a two month field research at all vocational schools in Naryn. The methods mainly used were group interviews with school directors, teachers, masters, and students (in separate groups), observations of lessons and guided tours through schools buildings. At the end of a stay, findings were discussed with the school directors.

For education in Naryn Oblast and particularly agricultural education, the vocational schools are of ut-

most importance. There are nine vocational schools with 1670 students (48%), three technicums with 675 (20%) and one university with 1113 (32%). Almost 85% of agricultural students in Naryn Oblast are enrolled at vocational schools. It has to be said, though, that for receiving higher education many young people go to Bishkek. The exclusive consideration of Naryn Oblast thus has some weaknesses.

##### 4. 1. Agricultural professions

Most vocational schools are agriculture-oriented (seven out of nine). The two most important professions are 'master of agricultural production' (= farmer) and 'livestock master'. Curricula still show many features from Soviet time. They are quite narrow and specialised, and biased towards the use of machinery. Economical and management aspects of agriculture are hardly treated. Animal and field husbandry are still considered as two separate branches of agriculture, as evident from the two respective professions. The notion of a farmer as a generalist and farm manager is not yet common, farmers rather are considered as production technicians. The so called 'Republic Methodological Centre' in Bishkek developed a classic example curricula for every profession. These may be adjusted to local conditions, but only up to 15% of lessons. Schools, however, usually work with the given curricula.



Vocational School in Kochkor, Naryn region



The existing curricula do not take into account the special role women play in agriculture.

#### **4.2. Infrastructure**

A basic infrastructure for VE is available and is a base for future improvements. However, at the moment this infrastructure is rapidly deteriorating. There is no money available for the maintenance or repair of buildings and machinery. Classrooms are small and equipped workshops are few. Prior to independence the provision with tools, spare parts, and materials was said to be good. Additionally, schools could use the infrastructure of collective or state farms. Since independence, vocational schools did not receive any new tools, machinery or other materials. There is simply no money. Therefore workshops usually look like scrap yards, with few benches and much rusty, old metal laying around. Tools are not available or only in short supply. Machinery and other equipment are old and in poor condition.

All schools have well-endowed libraries. Many books, however, are old and in Russian (few students at vocational schools speak Russian). For some important topics like farm management or field husbandry there are no new books available.

#### **4.3. Practical training**

Practical training is the most severe problem. Only a third of time is scheduled for practical training, but even these hours cannot be used meaningfully. The schools do not have the necessary infrastructure (workshops, tools, materials, spares) to conduct training and give little effort to provide students with training opportunities outside the schools. Before, students were sent to kolkhozes and sovkhoses for practical training. Obviously, this is not possible anymore; practical training today takes mainly place at the parental farms. This is problematic too, since most parents do not have the required knowledge or infrastructure.

Admittedly the infrastructure of most vocational schools is not very favourable for practical training. However, since all schools dispose of land, livestock and machinery, with a little bit of commitment, much more could be achieved, e.g. by involving students in field and machinery service work or carrying out small scale experiments and practice-oriented group works.

#### 4.4. Teaching staff and students

The teaching staff has low salaries and these are paid irregularly. They have few possibilities for further education and little methodological or thematic support from Bishkek. New teaching and visualisation aids are not available. Thus lecturing and questioning are the dominant teaching methods. The motivation of the teaching staff is rather low. Females usually are more active and initiative.

The number of students at vocational schools drastically decreased and many schools today have only half of the students compared with the 1980s. Several reasons could explain this: the bad financial situation and thus the cut in number of budget students, the closing of dormitories at most schools, the cease of benefits (food and lodging, clothes, books) that students were provided with before, or the financial situation of most parents who cannot afford to pay for education on a contract base. Access to vocational schools for students from rural, remote areas is restricted due to a low mobility and the closing of dormitories.

Students often seem not very interested in the lessons, sitting passively at their desks, not asking questions or taking notes. Scholarships and food allowances are important reasons for enrolment. Many students wish to continue their education at a university, typically with a non-agricultural subject. Given the small choice of professions offered at vocational schools in Naryn Oblast, this does not surprise.

This assessment and description might appear unfair and too critical. After all, Kyrgyzstan has a well-established VE system, especially when comparing with many developing countries. However, it is justified to compare the Kyrgyz system with European systems, since in their self-image the Kyrgyz consider themselves to be a part of Europe. Several successful examples of VE institutions from different countries were presented in an ADB-organised and sponsored seminar in August 1999 in Bishkek; one was from Ghana. The following remark from one of the Kyrgyz participants was much applauded and expresses the general attitude: "I read with great joy and interest the examples of Germany and the United States. But what can we learn from Ghana? Ghana is a developing country!"

#### 5. Conclusions and outlook

With this long list of shortcomings and bottlenecks, one might be tempted to leave the whole vocational education system as it is. After all, what is the benefit of investing possibly large sums into a formal education system that has little relevance for the everyday life in rural areas? And what is the benefit for young people of attending a school for two years compared to those who just start working? There is some truth in this reasoning, however, still I think agricultural vocational education must be supported. Why?

- Education, be it initial or further, is crucial for coping with transformational changes. Economic and legal reforms are not sufficient. People must be enabled to make use of new opportunities. In my view, this is one of the main tasks of the VE system in Kyrgyzstan: enabling people to master the new reality.
- The VE system is well established and accepted in the society. The Kyrgyz government wants to reform and strengthen it and received for this purpose, inter alia, a 25 million US\$ loan of the Asian Development Bank. The Kyrgyz themselves will not just let VE be.
- Young people should receive a meaningful education. Education has a high profile in the Kyrgyz society and people strive for it. At present, agricultural VE is only of little relevance for today's agriculture. Hence support and adjustments are needed, the faster the better. Otherwise the reputation and acceptance of vocational schools will be severely damaged.
- Most smallholders did not receive an agricultural education or only a very specialised one. In general, much agricultural knowledge is lacking (as evident by decreasing soil fertility or breeding quality). The Narynian agriculture needs farmers with comprehensive, practical and 'hands-on' skills. For an education emphasising practical skills, vocational schools seem to be most appropriate.
- Agriculture is the dominant economic sector in Naryn, where few other occupations are attainable. In the long run, this dominance will and must decrease. Agricultural education, nevertheless will remain crucial for the development of rural areas; even more so when the agricultural structures allow for more intensive production.
- Not all young people have the financial or intellectual opportunities to study at technicums or univer-

sities. But a solid knowledge of a profession or craft is necessary for all young people, as a starting point for live-long learning. This holds even more true for agriculture, since there will be an immediate pay-off, e.g. through more efficient and thus cheaper production, increasing yields or animal health.

- Initial and further education in agriculture are complementary. Advisory services as means of further education become more efficient the better the initial educational level of its clients. Supporting vocational education thus is the next logical step after the nation-wide establishment of an advisory service.

For these reasons, Helvetas started to implement a new “Agricultural Vocational Education Project” in Naryn Oblast at the beginning of 2001. The overall goal is to contribute to a locally adapted, effective and sustainable basic agricultural education system that guarantees graduates the ability to manage private farms, and helping raising the Kyrgyz farmer’s income. Institutions hope this venture will be successful, for the benefit of the rural youth!

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Education – a crucial factor in the transformation process.