1 Introduction: Agricultural reforms and problems in Kyrgyzstan; Motivation of the study

This is an introductory and overview chapter. The starting point is the overview of the agricultural reform process in Kyrgyzstan. One of the main results of the reforms is emergence of the new type of farming system based on independent private farmers as main agricultural production unit. The conclusion derived from observing the farmers in the post reform era is that they face a great deal of constraints, entailing poverty and underdevelopment in rural areas. The elimination of the state regulated agricultural system was not followed by market formation to replace the old system. Market and coordination failures are distinct phenomena that characterize the post reform rural areas in transition. In this chapter we overview on theoretical level the issues related to market failures. This has dual purpose. First to understand the problems that prevent rural development in Kyrgyzstan and second to motivate policy interventions and analytical policy study. Finally, we explicitly state research objectives and research framework of this study.

1.1 Agricultural reforms in Kyrgyzstan

About 7 % of approximately 198 500 sq. km. of land area in Kyrgyzstan is arable and 80% of the arable land is irrigated. Kyrgyzstan is predominantly mountainous country, crop production is mainly located in limited number of valleys, and most of the land below 1500 meters above the sea level is cultivated (McKinney, 2006). In terms of agro-ecological zones, there are two distinct regions: North with continental climate where mostly grain is grown on a large scale and South with milder climate where crops like tobacco and cotton are cultivated on industrial scale.

Historically, the Kyrgyz people led a nomadic life and only under the Soviet regime the republic started to develop modern agriculture, this coupled with its climatic conditions and mountainous level of elevation demonstrated the republic's advantage in livestock rather than in plant production (*Kyrgyz Republic: Livestock Sector Review*, 2005).

Despite heavy reliance on industrialization in the Soviet development policies, compared to other republics of the Soviet Union, the Kyrgyz Republic was less industrialized, less developed with higher level of poverty in pre independence years (reaching 27% of population measured by wage poverty (Babu, 2006)).

In pre-independent Kyrgyzstan 62 % of the population resided in rural areas and 35 % of the labor force was employed in agricultural sector. Thus, the agricultural sector was always a sector of high importance. Before 1991, a third of country's GDP originated from agriculture, half of the republic's export was agricultural (mainly wool, meat, cotton and silk, fruits and veggies). The Republic was specializing in livestock, which accounted for 65% of all agricultural output. Livestock numbers included 10 million sheep and goats, 1.2 million cattle, and 0.3 million horses (*Kyrgyz Republic Agricultural Policy Update, Sustaining Pro-poor Rural Growth: Emerging Challenges for Government and Donors*, 2004).

Major organizational units in rural sector were collective and state farms established in the 1930-40s, they incorporated the function of agricultural producers (with state ownership of land and all productive assets) as well as social and administrative functions in the rural areas. Just before independence, there were 265 state farms with average land holding of 30 thousand ha and 179 collective farms with average land holding of 40 thousand ha in Kyrgyzstan (generally, there were no major differences between the two). Typical state farms included two or three villages, but not all residents worked in collective farms, about half of the population was employed off farm, and 20 % of on farm employment was administrative.

In soviet times the agriculture sector was heavily subsidized and mechanized. Like in other sectors of soviet economy, the production activity in agriculture was centrally planned and plans were strictly enforced. Rigid vertical integration of agro-food system in production and sale of output meant reliance on the whole chain of marketing and central supply of inputs for agricultural production. In terms of trade, 90% of markets for Kyrgyz output were in other former Soviet Union (FSU) countries, indicating the importance of republic's specialization and central coordination of production and trade.

Even long before independence and the start of the wide spectrum reforms in the Republic, it was evident that agricultural sector was not very efficient and was not achieving its targets on demand for agricultural products. The soviet statistics of those years were pointing to the high cost of agricultural production in Kyrgyzstan compared to other republics of FSU. Collective farms were inefficient because of agency and free rider problems - the types of externalities when supervision is inherently weak (unenforceable) and there were incentives for workers to shirk.

Food shortages were common, productivity levels were low compared to other countries, despite high level of mechanization and fertilization, and losses in output at all stages of production and realization were systematic and high. The alleged advantages of economies of scale of large state farms were outweighed by absence of motivation and interest on part of the members of the state farms, absence of independence in decision making, absence of entrepreneurship of large farms and their management.

As a result the reforms in the sector were needed long before 1990s and especially so in terms of incentives structure.

Kyrgyzstan's specialization in livestock: sheep and wool was heavily supported by out of republic supply of fodder and grain. Generally, every republic had its role in soviet inter republican labor division system, reflecting comparative advantages of every republic and resulting in limited number of crops grown. Consumption needs were met by inter republican trade. For the Kyrgyz Republic this also implied severe dependence on import of foodstuff and consumer goods from other republics and countries.

The political freedom for Kyrgyzstan, in the form of collapse of USSR, came unexpectedly; it was not fought for nor demanded and even less prepared for. Political break up led to de facto independence, including economic one which meant for underdeveloped republic like Kyrgyzstan the cease of investment and development assistance inflows for which the republic was greatly reliant (up to 20% of GDP was in form of development assistance from Moscow). Dismantling the political system meant

rooting out everything that was associated with communist party rule: the planned economy and collective farms.

The worsening of the economic situation in agricultural sector led to whole array of problems starting with rural-urban migration and food insecurity of the country. As the Republic lacked resources to provide for basic needs relying on discredited old planned-normative system, it was compelled to end the state monopoly and stimulate private sector development i.e. introduce the whole new system, by destructing the old one. To the extent that natural resources determine the political economy of reform, Kyrgyzstan as a resource poor country with no exportable cash crops or mineral resources was not motivated to hold on to the old political and planned economic system.

It is important to describe the complexity of the background of that time against which the reforms were unfolding and were shaped by. New economic strategy of central soviet government included as its central element the price liberalization, which brought about the hyperinflation in the whole ruble zone (which included all former USSR republics). As economic crises erupted, the payment mechanism between republics broke down, the Kyrgyz Republic was losing its traditional export markets, and transfers from Moscow dwindled down. Terms of trade for the Republic quickly worsened, as prices for oil, gas and coal increased while republic was heavily energy import dependent. These manifold shocks naturally led to deep and unprecedented economic crisis, which reduced the power and capacity of the republic's government to stick with central control in regulating the republic's economy. Agricultural sector was directly affected by volatile macro conditions so that agricultural output and rural incomes collapsed by 30 % of pre independence level in the first years of reforms.

Those conditions laid the basis for motivating the agricultural reforms in Kyrgyzstan.

While there was consensus that reforms were needed, it was hotly debated on how to go ahead with agricultural reforms. On the one hand, the then existing management of collective farms argued for preserving the old regulatory structure but correcting some inefficiencies of large state farms, by introducing more competition. On the other hand, based on observations from western countries and support of international donors the government felt for need of more efficiency based on totally new liberalized system. Market economy became an overriding objective, market economy which is based on private ownership and which ensures the most efficient use of assets and allocation of goods, at least theoretically. Efficiency was a driving factor of reform rationale - reforms were preoccupied with a theory that farmerization and private ownership would lead to more efficiency as the independent farmers shrug off the inefficiencies of collective farms.

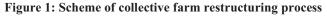
The directors of the collective farms kept arguing for maintaining the state ownership and re-orientation of large collective farms towards new needs and demands of the changing political and economic reality. They argued for economy of scale and the need for less destruction of then existed system. Opposing camp, among them was then Minister of Agriculture, proposed the radical strategy of full farmerization, as the most efficient system, citing the example of Norway with 80 thousand farmers who provided food security for the whole country. The so called "shock therapy" was favored, with full fledged privatization and liberalization of economic relations, including complete elimination of the state agricultural support system together with state regulation (state

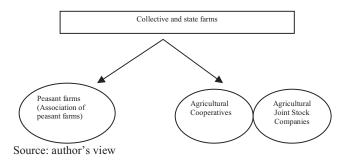
involvement). They argued that with no sufficient local supply/input base in Kyrgyzstan (fertilizers, fuel, and mechanization) as well as with reliance on government's subsidies the large farms were not viable in the new reality of the fast changing economy. Whereas, private independent farmers would be much more flexible and efficient in agricultural production, with more private investment, better crop mix and responsiveness to market signals, i.e. prices, as was perceived from experience of western countries.

According to government publications of those years, agricultural reforms had to be implemented gradually. Without destruction of profitable large collective farms, the remaining inefficient farms had to be dissolved and their land was to be distributed on competitive basis to new farms and cooperatives, which should prove and demonstrate their capabilities as professional farmers to the local authorities.

Unlike in other agricultural reforming countries (e.g. China), the agricultural reforms in Kyrgyzstan were launched not with land reform, but with the efforts to restructure the inefficient large collective farms. This restructuring was done on paper, as a result, in the first years of reforms, the farm structure changed a little and management retained its positions- farms continued to produce in the way the collective farms used to do it for decades. At that stage, reforms were largely superficial reflecting the resistance of large farm directors and uncertainties of macro-economic turmoil. Reform policies were difficult to implement due to lack of experience and weak enforceability and as system still favored the big farms (in terms of provision credit, input etc.) thus discouraging the independent private farmers.

Persistently state collective farms coexisted with few emerging independent farmers who got the land on a long term lease. Independent farmers were disadvantaged, as they got land of worse quality, and it required to go through endless bureaucratic procedures to establish an independent business, where officials decided on how much land to allocate. This of course was detriment to success of independent farming. Superficial reforms, which allowed for independent farming but not for private ownership of land, could not change the situations and state farms still dominated the agricultural sector in 1991-1993. As Kyrgyzstan introduced its own currency in 1993, it was free and able to carry out its own independent economic policies. The agrarian reforms received new impetus in the form of introduction of land reforms - new legislation was advanced allowing for 49 years lease (later to 99 year lease) of land and freedom to become a farmer to any national of the Kyrgyz Republic. Collective farms at that time had to be mandatorily restructured, via division into peasant farms and association of peasant farms or reorganizing into agricultural joint stock companies and cooperatives, as shown in Figure 1 below.





With galloping mass privatization in other countries of the former Soviet Union, privatization also became an overriding objective of the Kyrgyz government. The privatization accelerated in agricultural sector as well, where the policies were understood to mean the elimination of the state farms and fragmenting the large farms into the numerous independent farmers. The smaller farming units were created by distributing shares of the land and of non land assets to all rural residents and the collective farm workers with fragmented land holding of the collective farms' land. According to legislation of those years, the rural shareholders were to choose either to leave their shares in large reorganized (into Joint Stock Company or cooperatives) farms or withdraw their shares to become independent farmers. In reality, large reorganized farms were no different than collective farms with the same mode of operation and no change in incentive structure. By the end of 1994 the number of peasant farmers reached the level of 20 thousand farms, controlling only 8% of the arable land, who in the absence of affordable inputs for large sale agricultural production were quickly falling into subsistence production (Bloch, 1996).

The critics of reforms at that time indicated that reforms were producing only the quantity of farms but not the quality of farmers/production and thus the state should revise its strategy or impose the strict examination of the new farmers in order to filter out the most viable and professional entrepreneurs. The pro reformers reacted against the revisionism and subjective approach of examination and argued that the reforms should proceed in a way to allow for the private ownership of land and giving the way to free trade, which will bring about the market institutions and naturally filter out the professional farmers.

Most of large state farms were highly indebted and as government promised to write off the debt for fast reorganization, the restructuring was gaining momentum. The opposite was true for reforms in land ownership. As international experience show, land reform is a prerequisite for deep agrarian reforms. Plain restructuring and privatization of state assets as was done in the industrial sector of the Republic's economy and service sector would not be enough to change the system in agriculture. In agriculture the main asset is land and without private ownership of land it is difficult to expect the emergence of efficient independent farmers. The road to private ownership in Kyrgyzstan started with introduction of land user right ownership, with possibility to inherit, sell, etc the land. However, the institutional basis for land transactions were absent and thus de facto land was still not an asset worth investing in.

Nevertheless, one of the biggest, but veiled predicaments in initially institutionalizing the private ownership of land was the issue of nationality/ ethnicity in the use of land. Historically, ethnically Kyrgyz people were nomadic and preferred nomadic life, as they were not settling down for a long time the best and fertile land on south and north was used and cultivated by other nationalities/ ethnicities (Russians, Uzbek and some Muslim Chinese). Thus, if the land was quickly to be distributed to those who lived and used the land, then land would have gone to non Kyrgyz population. Reflection of those fears was creation of the Fund for National Entrepreneurship and Land with a purpose of ensuring that Kyrgyz populace and farmers receive the state protection.

It could be argued that only after the large scale out-migration of non Kyrgyz during the 1993-2000, the reservations that land might end up in hands of non Kyrgyz receded and it

became possible to introduce the private ownership of land in year 2000 with introduction and adoption of new Land Code.

Thus the agrarian reforms proceeded in several distinct stages. Initially, with radical political changes in the USSR, with disintegration of backward and forward linkages of the Soviet economy, with problem of conceptualizing the reforms and deciding on land ownership the reforms saw a slow start. Agricultural output and livestock numbers declined and productivity levels were falling. The Republic turned to produce food crops such as wheat, potatoes for internal use in pursuance of food self sufficiency strategy. The second stage coincided with macro stability, after 1995, the reform efforts took off. By the end of 1996, there were more than 23 thousand independent peasant farmers with average landholding of 6-10 Ha occupying more than half of all arable land in republic. Since then agricultural output, as well as productivity levels started the slow recovery. Finally, the third stage of reforms emerged with introduction of the private ownership of agricultural land and conclusion of restructuring of old farms and distributing all arable land in 2002 (except for 25% of Land Fund and pastures, which continue to remain in state property) (Childress, 2000). However, agricultural production was not stable showing great variability and vulnerability to all sorts of shocks.

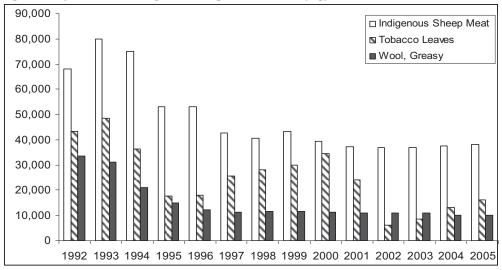


Figure 2: Dynamics of the agricultural production in Kyrgyzstan (meat, tobacco, wool)

Source: FAO country statistics

Overall, the essence of reforms in agriculture boiled down to collective farm restructuring and large scale privatization of their assets including land. As a result, the new agricultural structure were created mainly consisting of the independent peasant farmers (250 thousand fragmented private farms, who hold 75 % of arable land (World Bank, 2004) with average land holdings of 10 Ha and with heterogeneous levels of asset holdings (land, livestock, machinery, management). Some statistical observations (Childress, 2003) show that there are wide variations in terms of farm characteristics. For example, new farms range from very small 2-4 Ha land and 4-6 member farms to very large farms with landholding of 1000-2000 Ha and membership of several hundreds.