The Socio–Economic Life around Beans in Kyrgyzstan: Practices, Discourses and Local Households

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Abstract

Bean production is a feature of post-independence agriculture in Kyrgyzstan, and bean production has come to play an influential role in the daily lives of ordinary people. This study aims to investigate the role of beans and bean cultivation in the agrarian villages of Talas (such as Amanbaev and Bala–Saruu) by discussing how practices, discourses and local households are shaped around bean production. Moreover, this study investigates the impact of bean cultivation on the socio-economic life of farmers by applying the concept of biocultural diversity as well as an ethnographic approach.

Keywords

bean production – agriculture – socio-economic life – farmers – biocultural diversity – Talas

Introduction

Beans have been a prominent topic of discussion in Kyrgyzstan's Talas *oblast* since fall 2015, when a sharp drop in the price of beans—the "white gold of Talas"—threatened farmers' livelihoods and raised concern. Per-kilo prices approximately halved over the course of a year, falling from 60–65 soms per kilo in 2014 to 28–35 soms per kilo in 2015.1 In two administrative regions, Kara-Bura

1 "Tseny na fasol', dorogi i aktivisty – Sariev vyekhal v Talas," *Sputnik.kg*, November 10, 2015, http://ru.sputnik.kg/society/20151110/1019981015.html (last accessed December 12, 2015).

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and Manas, local farmers protested in late October 2015, calling for a price increase that would enable farmers to sell their harvest at a price that, if nothing else, covered their costs.

When one travels to Talas' agrarian villages, one hears local people describe beans using words like "*amerikanka*" (American), "*kitaianka*" (Chinese), "*lopatka*" (shovel), "*iubka*" (skirt), and so on to classify the beans by shape, color and size. In the last decade, the bean has become the Talas region's primary export as well as one of the main subsistence crops grown by local people, making it a key part of everyday life.

This paper studies the agriculture of Talas, specifically bean cultivation; it covers practices, discourses and local economies built around and shaped by bean production. It further applies the concept of "biocultural diversity,"2 which refers to the everyday life of people—including practices, beliefs, and ecological and traditional knowledge3—in order to understand specific community practices around beans. Data was gathered during fieldwork in the Amanbaev and Bala–Saruu villages of Talas in November 2015 and February 2016 using the methods of participant observation and in-depth interview. In both villages, the participant observation took place in the households of farmers who cultivate beans. In-depth interviews were conducted with members of families that were part of the participant observation, as well as with other farmers and workers, using the snowball approach.

The villages where fieldwork was conducted provide a deliberate contrast: Amanbaev is a multiethnic village where bean cultivation was introduced very early and almost every family now cultivates beans, whereas in Bala–Saruu people are engaged in cattle breeding and also cultivate other vegetables in addition to beans. Choosing villages from different regions of Talas allows for a comparison of approaches to—and meanings and perceptions of—bean

2 The term biocultural diversity has been defined in different ways by different scholars. This study tries to apply Zemfira Inogamova-Hanburu's definition: "diversity of people, knowledge, education, skills, used techniques, methods, occupation, approaches, agricultural engagement, land use, life style…" See Z. Inogamova-Hanburu, "Sokhranenie bioculturnogo raznoobraziia dlia razvitiia ustoichivosti soobshchestva fermerov v sele Amanbaevo, Kyrgyz- stan," special issue on biocultural diversity in Central Asia, provided to the author via email.

3 For more about ecological and traditional knowledge within biocultural diversity, see R. Hill, L.C. Cullen-Unsworth, L.D. Talbot, and S. McIntyre-Tamwoy, "Empowering Indigenous Peoples' Biocultural Diversity through World Heritage Cultural Landscapes: A Case Study from the Australian Humid Tropical Forests," *International Journal of Heritage Studies* (2011); and R.K. Singh, J. Pretty, and S. Pilgrim, "Traditional Knowledge and Biocultural Diversity: Learning from Tribal Communities for Sustainable Development in Northeast India," *Journal of Environmental Planning and Management* (2010).

cultivation. This study aims to explore the role of beans in Talas region and their impact on socio-economic life, practice, discourses, and local households from an anthropological perspective by answering the following questions:

1. To what extent is the bean plant widely cultivated in Talas region andhow does this plant influence social life and the local economy?
2. How do farmers perceive the bean in their everyday life and how is bean production practiced in different communities?
3. How do people organize bean cultivation and what shortages do people face?

Bean cultivation remains a relatively new component of Talas agriculture. However, beans have now been cultivated for two decades, giving them a significant place in the social life and local economy of villages in Talas that is the subject of this study. Moreover, by taking into consideration the ethnic diversity of villages, this study will discuss Kyrgyz and Turkish farmers in detail, with the goal of understanding their practice of bean farming and perception of beans and identifying any differences between the two. Finally, this study will describe the whole process of social organization: practices around bean production, shortages people face, and mechanisms people use to sustain thecommunity.

Literature Review

For Kyrgyzstan, as for the other nascent Central Asian countries, the period soon after independence was the hardest for both government and people. John Schoeberlein notes that the Talas region, like Kyrgyzstan in general, is poor in many aspects.4 According to statistics provided by the National Statistic Committee of the Kyrgyz Republic, in the 2000s, Talas was one of the poorest regions, with an 80.8% poverty rate (behind only the southern region of Batken), but by 2014 the poverty rate had dropped to 19%.5 One of the main drivers behind this improvement in living conditions is bean production.6 Bean

4 J. Schoeberlein, "Talas's Central Asian Cultural Contexts," in J. Beyer and R. Knee (eds.), *Kirgistan: Ein Ethnografischer Bildband Über Talas* (München: Hirmer, 2007).

5 Poverty rate statistics are available from National Statistic Committee of the Kyrgyz Republic, "Uroven zhizni naseleniya," http://www.stat.kg/ru/statistics/uroven-zhizni-naseleniya/ (last accessed March 6, 2016).

6 Inogamova-Hanburu, "Sokhranenie bioculturnogo raznoobraziya."

cultivation is not only a present agricultural trend in Talas, but also has history and meaning for local people. Accordingly, it is important to research the role of bean cultivation in Talas by applying an ethnographic approach, discussing bean cultivation techniques and beans' influence on society in terms of sustaining life in rural villages, developing the local economy, and people's general practices surrounding bean production.

The bean belongs to the legume family and is called *Phaseolus vulgaris L.* Globally, the bean ranks second among legumes in terms of the area of cropped land it takes up.7 The motherland of legumes is South America.8 According to archaeological data, the earliest known beans were found in Coxcatlan Cave (in Mexico) and dated to 5,000–3,500 B.C. Domestication came later, and beans have been demonstrated to have formed part of the diet of indigenous Americans.9 Today, beans are cultivated and consumed both in South Americaand worldwide.

The bean is considered an answer to the world protein shortage, since it is rich in amino acids. In terms of their protein content, beans are comparable to meat and better than fish. Beans also contain carbohydrates, fat, minerals, and vitamins.10 Since the domestication of beans, they have been used primarily for human consumption: the Near East and Balkans are the top consumers, while Argentina, Mexico, China, and Egypt are the leading producers on the world bean market.11 For cultural, geographical and territorial reasons, Kyrgyzstan does not appear in these global standings, but beans are nevertheless the most significant and fastest-developing crop in Talas region and Kyrgyzstan asa whole.

Kyrgyzstan is an agrarian country and its agricultural sector remains the largest sector of its economy.12 In the Talas region, about 90% of people's income

7 N.A. Kadyraliev and A.U. Bodoshev, "Opredelenie nekotorykh fizicheskikh svoistv zeren fasoli, vyrashchivaemykh v Talasskoi oblasti Kyrgyzskoi Respubliki," *The Journal of Young Scientists*, 5, no. 64 (2014).

8 A. Bodoshev, "Aminokislotnyi sostav zeren fasoli, vyrashchivaemykh v Kyrgyzstane," *The Journal of Young Scientists*, 24, no. 104 (2015).

9 L. Kaplan and T.F. Lynch, "Phaseolus (Fabaceae) in Archaeology: AMS Radiocarbon Dates and Their Significance for Pre-Colombian Agriculture," *Economic Botany*, 53, no. 3 (1999): 261–272.

10 Kadyraliev and Bodoshev, "Opredelenie nekotorykh fizicheskix svoistv."

11 M.J. Aybashev and P.M. Keneshbaeva, "Sostoianie proizvodstva i pererabotka fasoli v Kyrgyzskoi Respublike," *Aktual'nye problemy gumanitarnykh i estestvennykh nauk,* 3 (2015): 10–16.

12 The National Statistic Committee of the Kyrgyz Republic, 2014, http://www.stat.kg/ru/statistics/.

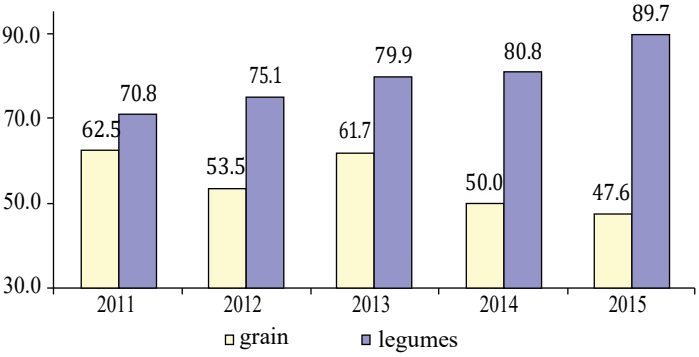

Figure 1 *Production of grain and legumes in Talas (in thousand tons)*
Source: The National Statistics Committee of the Kyrgyz Republic, "Encyclopedia of Talas, 2015."

comes from agriculture.13 The majority of farmers have moved from cultivating different types of food—either for personal use or for sale—to focusing on bean cultivation.14 According to data provided by the National Statistics Committee of the Kyrgyz Republic, bean production is growing year on year.

Figure 1 shows the trend in bean production in comparison to the grain crop in Talas. Bean production is growing year on year, whereas grain production is decreasing. Beans take up a large share of agricultural land: in 2015, the Talas region harvested 53,036 hectares of legumes.

As Figure 2 shows, despite the overall growth in bean production in Talas region, cultivation levels of the crop vary from region to region. Geographical, climatic, and occupational conditions mean that not all regions produce as many beans as the Kara–Bura and Bakai–Ata regions. As such, bean production might be expected to play a different role in—and have a different impact on—socio-economic life in different regions of Talas.

At the same time, it is important to take into consideration the overall area of land devoted to bean production every year in order to understand the growing phenomenon of bean cultivation.

From Figure 3, it is clear that the area used for cultivating beans increased almost 30 times between 2010 and 2014. This was a result of a sudden price increase that tripled the market value of beans to 90–100 soms in 2013. However,

13 J. Beyer and R. Knee, *Kirgistan: Ein Ethnografischer Bildband Über Talas* (München: Hirmer, 2007).

14 Inogamova-Hanburu, "Sokhranenie bioculturnogo raznoobraziia."

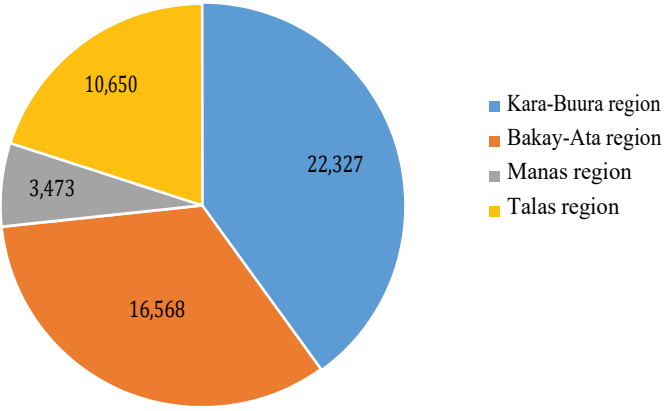

Figure 2 *Legumes sowed in Talas (in hectares)*
Source: The National Statistics Committee of the Kyrgyz Republic, "The Report about Harvested Crops in Kyrgyzstan in 2015."

Figure 3 *Land area used for bean production by year (in thousand hectares)*
Source: M.J. Aybashev and Z.M. Keneshbaeva, "Sostoianie proizvod-stva i pererabotka fasoli v Kyrgyzskoi Respublike" (2015).

bean prices have not been stable since 2014, prompting many Talas farmers to store their beans—their main livelihood—to sell later.

Cultivating beans is innovative for Kyrgyz people, since beans are not a traditional crop, though they have been one of the Kyrgyz Republic's leading agricultural products since 2009, with Talas region the country's main bean producer.15 Today, about 20 types of bean are cultivated in Talas,16 belonging to three main families: white beans, including *lopatka* (shovel),17 *kitaianka* (Chinese) and *sakharnaia* (sugary); colorful beans, such as black beans, elite and *tashkentskaia* (Tashkent); and variegated colorful beans like *riaboi* (pock-marked), *skorospelka* (early matured), *bokser* (boxer), *korolevskaia* (royal),

15 Aibashev and Keneshbaeva, "Sostoianie proizvodstva."
16 Bodoshev, "Aminokislotnyi sostav."
17 The translations of the names of beans were done by the author.

White beans: *lopatka, kitaianka,* and *sakharnaia*

Colorful beans: black beans, elite, and *tashkentskaia*

Variegated colorful beans: *riaboi, skorospelka, bokser, korolevskaia, gusinye lapki, dichka, pestryi, iubka,* and *mototsiklist*

Figure 4 *The types of beans cultivated in Talas region, Kyrgyzstan*
Source: N. Kylychbekova, "Issledovanie naibolee chasto vyrashchivaemykh sortov fasoli v Talasskoi oblasti Respubliki Kyrgyzstan," *Journal of Young Scientists*, 2, no. 37 (2012).

gusinye lapki (goosefoot), *dichka* (wild), *pestryi (*variegated*), iubka* (skirt), and *mototsiklist* (motorcyclist) (See Figure 4).18

According to agro-specialists, the origins of these types are unknown due to a lack of investigation into the topic. Farmers gave beans their names according to their appearance,19 and these names are widely used by both farmers and buyers.

Before the advent of widespread bean cultivation in Talas, beans were sown only in the gardens that provided for a household's own needs. Since the 1990s, however, there has been a tendency to sow beans in the fields.20 Beans first spread across the Talas region from the Kara–Bura administrative region (where Ananbaev village is located), where people of Kurdish and Turkish ethnicity began to cultivate beans, followed by Kyrgyz and eventually almost every family in the region.21 A diverse array of beans are now produced in Talas; accordingly, they play a significant role in the region's socio-economic life.

Indeed, on the one hand, independence brought social problems, such as unemployment and poverty. On the plots of land they had been given, people used domestic animals to plow and collected the harvest by hand, since they lacked the money to rent machines.22 On the other hand, these challenges helped people become creative in terms of their agricultural tools and techniques. In her chapter "Resilience Techniques: Spiritual Practices and Customary Economics within Farming Communities in Amanbaev Village, Kyrgyzstan," Zemfira Inogamova-Hanburu illustrates that in Amanbaev village, as well as in other regions of Kyrgyzstan, the form of farming has changed from large-scale to smaller-scale and from coping to creativity. Whereas in the Soviet era, people did as the central government told them to, after independence they were free to choose what crops to plant and how to spend their time, fostering new approaches to agriculture and the local economy.23

Nevertheless, Inogamova-Hanburu observes that daily life in Talas would not be able to survive without agriculture and bean cultivation. She points out that farmers in Amanbaev village do not consider themselves farmers and

18 N. Kylychbekova, "Issledovanie naibolee chasto vyrashchivaemykh sortov fasoli v Talasskoi oblasti Respubliki Kyrgyzstan," *The Journal of Young Scientists*, 2, no. 37 (2012).

19 Ibid.

20 Kadyraliev and Bodoshev, "Opredelenie nekotorykh fizicheskikh svoistv."

21 Ibid.

22 Beyer and Knee, *Kirgistan*.

23 Z. Inogamova-Hanburu, "Resilience Techniques: Spiritual Practices, and Customary Economics within Farming Communities in Kyrgyzstan," in C. Deane-Drummond, S. Bergmann and B. Szerszynski (eds.), *Technofutures, Nature and the Sacred: Transdisciplinary Perspectives* (New York and London: Routledge, 2015).

farming is not a profession; those who receive a salary are considered working people, while farming and being a farmer is part of everyday life.24 According to Inogamova-Hanburu, the younger generation perceives farming as "miserable, backward and not prestigious," and prefers to migrate to Bishkek to study and work.25

To be a farmer and work in the fields is not easy, as people perceive it to be. Perhaps because farming is part of people's everyday life in Talas, they do not recognize their own skills and knowledge. For instance, they have to know the local landscape and climate and understand cultivation (e.g. sowing and harvesting on time).26 Moreover, because of their occupation there is diversity in "customary economics," which "involves relationships, interactions and exchanges on social, cultural, ecological, political and agricultural level."27 Inogamova-Hanburu describes several customary economic practices in Amanbaev village, such as *ashar and kuzgugo. Ashar* is an important and widely practiced local custom "based on reciprocal and mutual exchange of communication, help, support, food and participation of members of local community,"28 while *kuzgugo,* which has a very important place in farming and influences the local economy, means, "borrowing until autumn…the season of harvest and consequently the season of income from selling the harvest."29 According to Inogamova-Hanburu, *kuzgugo* emerged due to the lack of money and work, which meant people had to borrow food from shops and money from other members of community, which they then returned come harvest-time. All these customary economic practices are well integrated into the everyday life of local people and they practice them within a framework of mutual trust. Since independence, the bean has been cultivated in Kyrgyzstan only in the Talas region, and there is a lack of ethnographic literature that specifically describes bean cultivation and its influence on people's social and economic life. Beans are discussed in Judith Bayer and Roman Knee's book, where they mention that "beans are cultivated in Talas Valley up to a height of 1000 meters and they are sown and harvested mechanically but have to be weeded by hand."30 Zemfira Inogamova-Hanburu's research on farmers in Amanbaev village, meanwhile, describes bean cultivation as one of several resilience

24 Inogamova-Hanburu, "Resilience Techniques."
25 Inogamova-Hanburu, "Sokhranenie bioculturnogo raznoobraziya."
26 Inogamova-Hanburu, "Resilience Techniques."
27 Inogamova-Hanburu, "Resilience Techniques."
28 Inogamova-Hanburu, "Sokhranenie bioculturnogo raznoobraziya."
29 Inogamova-Hanburu, "Resilience Techniques."
30 Beyer and Knee, *Kirgistan*.

techniques used in agriculture. There has, therefore, been some research on bean cultivation, but it would take more study to understand to what extent bean cultivation has become widespread, what challenges producers face, and how bean cultivation influences everyday life and biocultural diversity in Talas.

Findings and Data Analysis

The data were gathered during several visits to Amanbaev and Bala–Saruu, where I was able to interview people who faced the problem of low prices and learn how they tried to overcome this issue. By presenting the cases of Aziz baike[31] and Tamano eje,[32] I will first describe how people in Talas started cultivating beans and how beans were used in the everyday life of Tamano eje's family before widespread bean cultivation began. Secondly, I will discuss the importance of the bean crop to the economic life of rural villages by describing shifting and combined economies in the villages, as well as the sale, exchange, and domestic use of beans. Thirdly, having observed the workings of the local economy at the household level, I will describe the social life in villages built around bean-related activities—such as maintaining the beans, hiring workers, *ashar*,[33] and the sorting process.

Bean Production: Different Attitudes and Practices

The Case of Aziz baike: How Kyrgyz People Started to Cultivate Beans I have known Aziz baike since 2014, when I first visited Amanbaev village, a village of more than 6,000 people named for the shepherd Amanbaev, who was a "*geroi sotsialisticheskogo truda*" (hero of socialist labor). Aziz baike works in a state school in a neighboring village, but, like many of his fellow villagers, he also engages in farming. His family has cultivated beans since early independence, and in one conversation his wife Mira eje recalled how they first came to sow beans:

> In early independence, we as a young family moved to Amanbaev village. I remember it was a difficult time: some people worked on the plot

31 This is how Kyrgyz people refer to males older than they are.

32 This is how Kyrgyz people refer to females older than they are.

33 The practice of *ashar* in the context of Talas is studied by Zemfira Inogamova-Hanburu.See Inogamova-Hanburu, "Resilience Techniques."

> of land they had been given after the land reforms, some people opened businesses, and others migrated looking for work. People were looking for an income and bean cultivation offered one. We started cultivating beans when my elder son—he was 7 years old—gathered beans from someone's land into his cap and brought them home. At the time, people were already starting to cultivate beans on their plot lands, but it was rare. Thus, from one cap of beans we now cultivate hectares of beans.

Aziz baike's family experience is unique in terms of bean cultivation because it was a type of food that was new to them. According to Aziz baike, people faced many difficulties in cultivating beans: not everyone knew how to look after beans, there were no known weeding, harvesting and sorting techniques, and people did all this by hand. Today, bean cultivation is easier, since people are experienced and they have access to new technology. With the aid of a cultivator machine, sowing tools, and weeding, people can sow 15–20 hectares of beans, though there is still no tool for harvesting or sorting the beans. Aziz baike explains that bean cultivation began in 1998–1999 and was widespread by 2006–2007. It is believed that bean cultivation originated with Kurdish and Turkish farmers in Amanbaev village and later spread to other regions; beans are now widely cultivated by Kyrgyz, Russian, Turkish, Kurdish and Uzbek people. The case of Aziz baike is important to mention in this study because it shows how bean cultivation came into the everyday life of different ethnic groups and what kind of difficulties people faced in adopting this new crop. In addition, this case answers my research question about shortages: all farmers lacked experience of bean cultivation and techniques for doing it successfully.

The Case of Tamano eje: How Her Family Used and Uses Beans Tamano eje is a farmer of Turkish origin in Amanbaev village. In 2015, shesowed 18 hectares of beans from two types: "*amerikanka*" and "*kitaianka*." Shehas almost all the tools needed for bean cultivation. She said, "When farmershave their own land and tools, it is easier to engage in agriculture since theydo not worry about taking turns to use tools,"34 which is why her family cannow cultivate hectares of beans. She explained that her grandparents and parents sowed beans for their own use and beans were regularly consumed in herfamily: "If Kyrgyz people cannot live without meat, we also cannot live withoutbeans."35

34 Interview with Tamano eje, November 2015, Amanbaev village, Kyrgyzstan.

35 Interview with Tamano eje, November 2015, Amanbaev village, Kyrgyzstan.

In addition, I was informed that beans are used for daily consumption. For instance, when they have guests they always prepare dishes and salads with beans. As we ate, she reeled off a list of other dishes with beans that she regularly cooks for her family. Tamano eje prepares bean salads to be preserved for winter; hence, when I visited her in winter 2016, a bean salad was on the table. In addition, she preserves salt beans for winter to use in soup. She noted that the family does not preserve and eat the beans they cultivate, such as "*lopatka*" and "*kitaianka*"; instead, they consume red beans called tomato beans. When I asked whether they eat beans because they have al- ways done so, she answered in the affirmative, adding that they know the health value of beans. She recalled her childhood, when her mother cooked soup with beans for stomach problems. She also knows that beans can re- place meat when there is no meat. Before independence, they always sowed beans in their garden; in early independence, they tried to sow them in the fields. Since they cultivate them carefully, the size of bean land increases yearon year.

I consider her memory and usage of beans to be traditional knowledge with- in biocultural diversity, because she was able to turn domestic bean cultivation and usage into the family's daily occupation and main source of income. At the same time, she has not forgotten the knowledge of beans inherited from her grandparents.

The case of Tamano eje highlights the difference in Turkish and Kyrgyz peoples' attitudes to bean production. By comparing the two cases, we can understand their divergent experiences: Kyrgyz have an economic motive for bean cultivation, whereas Turkish people link it to their culture as well.

The Economic Life of Households around Bean Production

Land is the Main Source of Investment

Having a plot of land means that you can survive in the village because it gives you work from spring to fall—and a harvest from which you can benefit. How- ever, for many families in Amanbaev village, (bean) land is their main and only source of investment. When I visited Amanbaev village in winter, Tamano eje acquainted me with Hojar eje. She is a neighbor of Tamano eje and also cultivates beans. She has two daughters and two sons, all of whom are already married. Now she lives with her daughter-in-law. When her family was bigger than it is now, she rented land and sowed different type of beans on their plot of land. Now, without the money to hire workers, she only sows crops on her plot of land. One hectare of beans costs her 10–13,000 som to produce, whereas

farmers who rent land spend 18–20,000 som, she told me. Table 1 breaks out the activities on which farmers spend money.

Table 1 *Farmers' expenses*

No	Spending	Som
1.	Renting	12,000
2.	Tax	800
3.	Plowing	2,500
4.	Sowing	900
5.	Treatment of the ground with a cultivator	800
6.	Nourishing	900
7.	Water	1,000
8.	Combine	60 kg beans and 20 liters of gas.
9.	*Chabyk* – cutting grass by chopper Weeding	Usually farmers hire people for these activities if they have a large area of bean land. The expense perworker varies from village to village and season to season, but it is approximately 350–500 soms per day,per person.

If we were to add up these expenses, it would exceed even the amount indicated by Tamano eje. However, her calculation does not include labor cost. When I asked why, she explained that different farmers get help in different ways. For instance, those who have money can hire workers; if they face a financial shortage, they can recruit neighbors and relatives by through the practice of *ashar,* the mutual exchange of any type of help or support. Many farmers say that "the more you work, the more you get"—when you get a rich harvest in fall, you can make some investments in your family.

As Hojar eje says, the land is a very important means of sustaining village life. It not only provides food and wellbeing, but also creates the investment in life circle ceremonies and feasts, which are an inevitable part of social life in villages. For instance, when I visited Aziz baike's family in summer 2014, they were waiting for fall, when they could sell their harvest and give their elder son a big wedding. This year, their second son is going to marry and he rented land and sowed beans separately from his parents in order to help pay for his wedding expenses. Hojar eje's family also invests money in feasts. She mentioned that she spent the income from one year's harvest on her daughter's

wedding, and the next year she gave *beshik toi*, a lifecycle ceremony where the mother of the bride brings a *beshik* (cradle) to her grandchildren. Therefore, the cases of Aziz baike and Hojar eje show the importance of land—and bean cultivation—to everyday life: they give feasts and weddings for the village, and later they invest in a new house for their children. Moreover, the diversity of farmers' practices indicates their skill in caring for the land and producing beans, a marker of farmers' ecological knowledge and part of biocultural diversity. These cases also reveal the economic life around beans.

The observed phenomena are different, however, in Bala–Saruu village, where people cultivate animals and other crops alongside beans.

Combined Local Economy

By applying the concept of biocultural diversity to Bala–Saruu village, we can see the diversity of activities, planned strategies and expected results. Biocultural diversity suggests the interconnectedness of a variety of practices that sustain the community. In the case of Bala–Saruu village, this interconnected- ness is seen in the activities of local farmers, who practice cattle breeding as well as agriculture, and cultivate not only beans—as in Amanbaev village— but also other crops that help maintain the community's resilience.

Bala–Saruu is a small village located near Kirov water reservoir in Manas administrative region. This village was my second destination, where I lived with a host family, the family of Manas baike. As I mentioned before, in contrast to Amanbaev village, Bala–Saruu is monoethnic, comprised entirely of Kyrgyz. Thanks to its location near a water reservoir, Bala–Saruu has no shortage of water and is an optimal place for agriculture. According to my observation and interviews, the size of bean land is small and few people cultivate beans. The majority of farmers sow a *jashylcha*—vegetables such as tomatoes, cucumber, paprika, onions, and so on—which they not only sell within Talas but also export to Kazakhstan. According to my host family, bean cultivation came to their village comparatively later than other villages. However, my host family as well as their neighbors cultivate beans every year on their plot lands and sell the harvest *podkombayn* (immediately after collection, without cleaning). *Podkom- bayn* beans are cheaper than cleaned ones, but farmers in Bala–Saruu did not risk selling them this year due to unstable bean prices. When I asked them why they cultivate beans even when they have no water shortage and could easily cultivate other plants, they answered that they grow at least a hectare of beans every year because everybody does, and if they could not benefit from them this year as planned, perhaps there will be a good market for them next year.

Perhaps every farmer has such hopes. One of my informants, Ajar eje, told me about her bean cultivation experience:

> We cultivate a *jashylcha* and beans. Because our land is located close to water, we have *jashylcha*; it demands more work than beans but you can get the harvest earlier and make money. However, at the same time we have beans in the field: this year we sold the harvest for nothing: the money we received covered only the amount of money we spent. Nevertheless, we like bean cultivation because in 2013 and 2014, we got a rich harvest and were able to sell for a good price that covered our expenses several times. We cleared our debt, bought livestock, organized a feast for our grandchildren, and undertook renovations at home. Those years were good years. Therefore, who knows? Maybe next year we will have a better income from the beans than this year.

Her agricultural experience well describes how Bala–Saruu's combined economy is organized. People cultivate beans alongside other plants, at the same time as keeping livestock. My host family had some livestock in the pasture and some (the cows) at home. The cows' milk provides additional income for the family, since they sell it to local milk retailers.

When I first visited this village and lived with the family, I did not see many cattle and assumed that the majority of people were engaged in agriculture. However, I later discovered that all the cattle were in a *kyshtoo* (winter pastures). There is a combined economy in the village, and people engage in either agriculture or cattle-breeding to survive. Both practices are important: they have their plot land and they have to use it, while keeping cattle can be considered a continuation of what Kyrgyz people did before. The combined economy sustains village life and is one of the indicators of biocultural diversity, where people practice different everyday life strategies.

Usage of Beans for Domestic Use, Sale and Exchange

If in Bala–Saruu village people combine agriculture with cattle breeding, in Amanbaev village people are more inclined toward agriculture, particularly bean cultivation. There, as in other villages, bean cultivation is practical: they can sell beans, use them at home, or exchange them for other products.

Domestically, people not only consume beans and make winter salads but also feed them to their animals. According to my informants, right after the bean harvest, farmers herd their cattle into the fields. If they have no cattle of their own, they give other people permission to keep their livestock on these fields. Anything that is left in the fields after gathering the harvest is eaten by the cattle, such that nothing is wasted. Farmers who choose to clean their beans after the harvest (rather than selling them *podkombayn*) also keep the

damaged beans as cattle fodder: when there is no grass in winter, farmers feed their cattle boiled beans.

Though farmers try not to waste beans, their main goal is to get a rich harvest and sell it for a good price. As I mentioned before, they have two options: *podkombayn* or clean. *Podkombayn* means when beans are sacked right after the combine harvester separates beans from their pods and collects beans. It is impossible to get clean beans in this way because parts of beanpods accidentally fall into the sack. When farmers have many hectares of beans or when they need money, they sell it *podkombayn.* Usually, farmers sell beans *podkom- bayn* in the fall. At the same time, those farmers who have less bean land and who want to sell their harvest for a slightly higher price can clean and sort their beans. In fact, I found that many farmers in Talas divide their harvest, selling part of it *podkombayn* and part clean, since they can keep beans for a year andsell them at any time.

The bean producers in Talas not only use beans at home and sell them, but they also exchange them for other products. For instance, Hojar eje visits her relatives in other villages and regions every year. When she visits, she takes beans, mostly *ryaboi* and *tomatnyi*, to her destination. There, she exchanges them for potatoes or *jashylcha* from other villages that she takes home with her. When people do not have money to buy certain products from a shop, they can bring what they have in their fields and barter for what they need. This practice also serves to diversify villages' agriculture and spread different crops, because those who receive beans from guests can eat or plant them, and bean producers can likewise plant the crops they receive in exchange.

These different practices show how biological culture became culture and serves different functions36 in the social life of local farmers in Talas. These different functions of the beans are linked to biocultural diversity: people grow beans not only for economic reasons, but also to support daily life, including their domestic animals. The majority of farmers do not eat beans, but because they have traditional knowledge, which they obtained from villagers of Turkish/Kurdish ethnicity, they are able to use beans practically, thus sustaining village life. These different functions of bean cultivation show the utility of the beans and, therefore, the reasons for widespread bean cultivation inTalas.

36 For more about functions, see R. Slootweg, *Biodiversity Assessment Framework: Making Biodiversity Part of Corporate Social Responsibility* (Guildford: Beech Tree Publishing, 2005).

The Social Life of Households around Bean Production

Social Actors of Bean Production

Bean production involves not only farmers, but also others: brigadiers and workers, *murab* (the person who is responsible for water distribution to farmers), *suuchu* (the person who waters the land), intermediaries, and bean firms. Nevertheless, farmers have the central role in bean cultivation.

In my observations in Amanbaev and Bala–Saruu villages, I found that every family has a piece of land and is engaged in agriculture. Farmers' role in bean cultivation is crucial because they decide when to sow the beans and coordinate with tractor drivers, *murab, suuchu*, and workers. It is important to manage everything on time because if watering or cultivating is delayed, it can negatively affect the beans and reduce the size of the harvest. Farmers also do weeding by hand and *chabyk* (cutting the grass by chopper), at least if they do not have much land. (Farmers with a lot of land may hire others to do the work.) Hence, we can assume that farmers are knowledgeable about bean cultivation and that they manage bean production from sowing to selling.

Another actor in bean production is brigadiers (brigade leaders), who are extremely important for bean producers. Many villages in Talas have agricultural brigades, and they are well organized in Amanbaev village. The brigadier leads workers and connects them with clients (farmers). According to my informants, brigades emerged in Amanbaev village between 2004 and 2006. Today, there are three brigades in Amanbaev, of which the most trusted and biggest is the brigade of Gulya eje (see Figure 5). Now in her 50s, she is well known and respected among farmers for her honesty, responsibility, high-quality work, and ability to make her workers work. Everybody in the village knows her and even farmers from neighboring villages hire her brigade. The brigades create a well-organized labor community: farmers do not need to look for workers and make agreements with them individually, but instead work with brigadiers to agree time, place, and money. At the appointed time, farmers come to Gulya eje's house and collect Gulya eje and her workers.

The beans provide the main work for brigadiers and brigades in Amanbaev. Farmers hire them for *chabyk,* weeding by hand, gathering the harvest, and sorting. Gulya eje's brigade employs 40–50 people year-round, a figure that increases to 90–120 during the growing season. She has a notebook listing the names and contact information of her workers, all of whom are from Amanbaev village and the majority of whom are female. She is respected not only by farmers but also by her workers, because in her brigade everybody has a chance to work and get equal pay. Brigadiers and brigades are crucial to bean production because they do most of the work to produce the beans.

Figure 5 *The sorting process: Gulya eje (center) with her two workers in Amanbaev village* Photo taken by the author.

A *murab* and a *suuchu* are other actors who contribute directly to bean production. All villages in Talas—and in Kyrgyzstan as a whole—have their *murab,* who brings water from irrigation channels and fixes the time when farmers have to water the land, and their *suuchu,* who waters the land. They do not work together as a team since they have different functions. The *murab* is appointed by the *ail–okmotu* (administrative local government) and receives a salary. His responsibility is to bring water to the village and arrange the order in which farmers will water their land. The *suuchu*, meanwhile, is appointed by farmers to water the land. A *suuchu* can be anyone who is capable of watering. For instance, Manas baike from Bala–Saruu village always asks his neighbor to water and pays him for his work; the payment depends on the land area under cultivation. *Murab* and *suuchu* are typically male roles, but when there is no man in the family and no money to hire a *suuchu*, females also water their land. Irrigation is an inevitable part of bean production, and the *murab* and *suuchu* play a significant role in this process.

Other actors in bean production are local intermediaries and firms, which receive beans from farmers. After harvesting, the farmers sell the beans to local intermediaries, *priemshiki fasoli*, who buy beans from farmers and sell them to companies. The majority of intermediaries work closely with companies that export directly to other countries.

Figure 6 *Bean receiving house in Amanbaev village*
Photo taken by the author.

I observed that if a person has money, he can buy beans from his neighbors or relatives, store them until the price of beans rises, and then sell to intermediaries. However, the majority of farmers sell their beans directly to those local intermediaries and there are only few cases where farmers work directly with companies or export directly to other countries. In Bala–Saruu village, there are no such bean intermediaries, so farmers have to go to the next village, Pokrovka, to sell. However, in Amanbaev village, there are more than five *tochki priema fasoli* where farmers can sell their harvest. These receiving facilities are easily identified: Figure 6 illustrates big cargo transports near a place where beans are received.

Local intermediaries receive beans from farmers at one price, deliver them to firms at another price, and make money. Nevertheless, it is the firms that trace demand and fix the bean price. According to my informants in Talas, several firms used to have bean receiving points in villages, but now there is only one firm, Arbel. This firm has no offices in Amanbaev or Bala–Saruu, but it is represented by local intermediaries, who connect it with bean producers.

Thus, bean production is not only an agricultural feature of Talas region, but it is also the process by which socialization and networking take place. Moreover, the beans require more integrated relations between social actors: each

has some knowledge, and by interacting they can share this knowledge and so sustain village social life.

One Year around the Beans

People who are engaged in bean production are busy all year, in contrast to other types of production, where work starts in spring and stops in fall. Generally, a year of bean production can be divided into three main processes that shape people's everyday life: maintaining, harvesting and sorting.

Maintaining

From mid-spring and through May, farmers grow the beans—plowing, sowing and cultivating. These processes require equipment that not everyone possesses; as such, they must either borrow the machinery or hire farmers who have it. The payment for plowing, sowing and cultivating is based on an agreement between two farmers. When farmers have financial ability, they pay with cash and fuel. However, in the spring, not everyone has money, and farmers agree that they can pay (in cash or beans) in the fall. Such agreements show the importance of networking and mutual trust among villagers. After going over the ground with a cultivator, farmers wait for the *murab* to tell them it is their turn to water. According to farmers in Talas, the frequency of watering depends on the soil, weather, and type of beans.

The water nourishes not only the beans but also other plants, like weeds. If farmers do not get rid of the weeds, they will negatively affect the stems of the beans and delay growth. The next steps are therefore *chabyk* and weeding, which are done by hand. Farmers in Talas can either hire workers to do this or organize *ashar*, the exchange of help with neighbors or relatives. In Amanbaev and Bala–Saruu, the majority of farmers hire workers. *Chabyk* and weeding are inevitable parts of bean production through which socialization and networking take place, thus shaping everyday life in Talas.

Harvesting

When weeding is done, the work in the bean fields also stops until harvest- time. Harvest-time is the most important phase of bean cultivation because it entails not only workers' labor but also farmers' vigilance. The first step is pulling up the mature bean stems from the soil, a process the farmers call *juluu* (pulling up). During *juluu*, people uproot the bean stems and collect them in a long seedbed. The collected bean stems are then left in the field to dry. When the beans are dry, the farmers throw them into a combine harvester (see Figure 7), which separates beans from pods and stems and drops the beans into sacks.

Figure 7 *Combine harvester in Amanbaev village*
Photo taken by the author.

The combine harvester is important to farmers because it eliminates the need to do everything by hand, thus lightening their workload. Historically, farmers had to press the dried harvest under a tractor to divide beans from pods and cleaned them on a windy day or using a ventilator. The new technology makes it far easier to produce beans.

Sorting

Although farmers have begun to use technology for many parts of the bean production process, sorting has always been done by hand. Even when farmers sell their beans *podkombayn*, the beans must still be hand-sorted: intermediaries and "bean points" hire people to sort beans from late fall to early spring. The more people sort, the more money they can make, since intermediaries pay by the sack of sorted beans.

Farmers may also choose to sort the beans themselves at home with their family members. In one of my host families, we sorted a few sacks of *lopatka* every night, and everyone from grandparents to small children was involved. Since farmers can store their harvest for between 6 months and 1 year, they have time to sort, wait for a better price for beans, and then sell to intermediaries.

All in all, it is clear that bean production requires different types of treatment, care and work, involving not only technology but also people. Looking at

the year-long process, we can gain insight into the development and improvement of bean cultivation techniques in Talas. In my view, engagement with beans is a performance of social actors' ecological and traditional knowledge that demonstrates Talas' biocultural diversity.

Social Collision and Social Conflict around the Beans

Everyday life in Talas in the context of bean cultivation is connected with social actors; mutual trust among locals is crucial to everyday life. However, conflict has also been part of this process in the past. For instance, in Amanbaev village, one reason that well-organized brigades of brigadiers now exist is as a result of frequent conflicts between farmers and workers. The brigadier Gulya eje says, "I know some farmers who cheated workers by making them work hard in the field and at the end did not pay them. Sometimes farmers do not even bring clean water to workers."37 It is therefore good for workers to work within a brigade and with brigadiers, who will fight for their interests. If a farmer has a bad reputation in the eyes of workers, he will not find any workers next time. Equally, it is better for farmers to work with brigadiers and have good relations with workers, since these workers are their own villagers, neighbors and relatives. In these villages, be they big or small, everyone knows everyone else, and all actors depend on one another to produce beans.

Social Mechanisms

It is not only the social actors of bean production who ensure peaceful village life, but also bean production activities (hiring, *ashar*, and sorting).

In my view, working with brigadiers is a social mechanism of bean production that demonstrates the interdependence of social actors and reduces conflict in bean production.

Another social mechanism is the practice of *ashar*. Zemfira Inogamova–Hanburu studied *ashar* in the context of Talas, framing it as one of the customary economic practices that emerged out of financial shortages. In the case of bean production, my respondents explained, *ashar* is an answer in times when there is no money but the work waits in the field. It is mostly practiced within the neighborhood and between relatives, and the farmer is responsible for providing a hot dish for lunch. The practice has well-known, strict rules based on reciprocal exchange of help: if someone came and helped you, you should return this help, send a family member to help, or give money. These rules help to socialize people within the village. I see *ashar* as a valuable social mechanism

37 Transcription of interview with Gulya eje, January 2016, Amanbaev village, Kyrgyzstan.

that prevents conflict within the village, fosters unity within the neighborhood and between relatives, and promotes mutual trust.

Sorting is also a social mechanism, even though *ashar* is not practiced in sorting the beans because it takes place in winter, when farmers have money and can hire people. In winter, workers who work in a brigade in spring or summer may organize their own group or brigade and go to a farmer's home and sort there. For workers, sorting is an important social environment, and they sort with their friends and relatives. As one worker explained: "Sorting is laborious and fiddly work, which depends on your ability to work fast, but for me it is better to do it when I am with my friends because the time and work will go faster." After participating in the sorting process, I came to understand that the sorting environment promotes networking and socialization, as well as facilitating the exchange of information. Thus, for farmers and workers, sorting has both social and economic functions.

The social mechanisms practiced by locals in Talas show the interconnectedness not only of people but also of their activities, which influence their life and prosperity in these villages. Accordingly, this interconnectedness is connected to biocultural diversity, where interactions of economic, social and environmental values38 are seen. Moreover, the hiring process, practice of *ashar*, and sorting process—which encourage interaction between bean production actors—suggest mutual trust among villagers, which is a positive feature of bicultural diversity and a crucial component of conflict-free life.

The Socio-Economic Role of Bean Production

In analyzing my findings from fieldwork in Talas, I assume that it was generally the social and economic meaning of beans that drove the widespread cultivation of different legumes in Talas, but that for Turkish people beans have cultural significance as well. Beans have historically had high market value, and new cultivation technology makes it possible to cultivate a larger land area of beans with less effort than before, when everything was done by hand. Beans also provide farmers with flexible income, since farmers can store the beans for between 6 months and one year without a drop in the quality, and then sell to intermediaries at a favorable point in the year. This has allowed villagers to improve their quality of life and climb out of poverty since independence.

38 For more on economic, social and environmental values, see Slootweg, *Biodiversity Assessment Framework*.

Moreover, the bean fields have become a location for investment in the cultural and traditional practices that are an essential part of everyday life in rural villages. It is here that socialization, networking and communication take place. The income from beans is spent on lifecycle ceremonies and homes, creating a positive impact on people's quality of life.

Though Talas farmers have only been cultivating beans for just over two decades, bean production demonstrably shapes social life. The data collected during my fieldwork shows that it is important for villagers to have good relations with the social actors involved in bean production—they are interdependent, and the poor behavior of one actor will negatively affect bean production as a whole. Furthermore, activities related to beans (such as hiring workers, *ashar*, and sorting) can serve as social mechanisms that minimize conflicts. I see them as crucial processes that increase communication, knowledge- and information-sharing, mutual support, and trust. Through these mechanisms and practices, social actors understand their roles and interdependence. In all of these ways, beans influence the social and economic activities of the people of Talas.

Biocultural Diversity within Bean Cultivation

Biocultural diversity is an inevitable part of everyday life in villages as well as in bean production, which involves values, types of knowledge and functions that farmers in Talas understand and practice without hesitation. The values of bio- cultural diversity—economic, social and ecological—coincide with the practices of bean farmers in Talas. For instance, the economic value corresponds to farmers' desire to cultivate crops and thereby earn an income that allows for their subsistence. The social value translates into employment for brigadiers and brigades. This value is extremely important for people in Talas because they can earn money for their labor that can be put toward their daily expenses. Bean cultivation also meets the ecological value: it is an environmentally friendly crop, and farmers do not even waste the bean stems and pods.

Biocultural diversity also refers to traditional and ecological knowledge, and I think the knowledge and skills of the farmers who cultivate the beans corresponds to this value. For example, farmers know when they should sow, weed, irrigate, and *chabyk*. The farmers in Talas are holders and transmitters of ecological and traditional knowledge, which indicates the preservation and development of biocultural diversity.

Finally, biocultural diversity has functions that sustain the rural community. In the case of bean production, sorting, *ashar* and hiring, people do this by

fostering trust and support. The flexible market for beans also performs this function: the farmers in Talas cultivate different types of bean in their fields so that if one type has a low price, another will have better value, allowing farmers to cover their expenses and make an income. Thus, biocultural diversity is used within bean production to positively influence the sustainability of villages in Talas.

Conclusion

Bean production has become an inevitable part of people's everyday life in Talas. Despite the fact that in the beginning it was hard to produce beans (especially for Kyrgyz farmers in Talas, to whom the bean is a new innovation), people have adapted and learned everything they need to know in order to get a rich harvest. Though concerns about the current low prices of beans may influence farmers' agricultural strategies, the role of bean production in the social and economic life of Talas makes it obvious that farmers will not suddenly switch to another crop. For some farmers, their ethnic background gives the beans an added meaning, and all farmers have had their social relations influenced by beans. Bean production should be investigated in greater detail with a more holistic approach, but the data gathered during my fieldwork— combined with information from the literature— has enabled me to describe the whole process of bean production and everyday socio-economic life around the beans.