

Agrarian adaptations in Tajikistan: land reform, water and law

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In Central Asia, agriculture and water management have ranked as the two most important economic activities in this arid environment. These activities gained even more prominence during the Soviet era as planners expanded irrigation into previously marginal land that bolstered their vision that the best land be allocated exclusively for cotton production. In the wake of the fall of the Soviet Union, Tajikistan has enacted laws meant to expand and clarify land use categories to meet the dual targets of expanding food production within the country while maintaining as much land as possible in cotton production – their economic mainstay. To this end, the Tajik government instituted five categories of land tenure. Though comprehensive, these new dispositions merely mask a continuation of top-down agrarian decision making implemented during the Soviet period. Consequently, this change has created new problems for farm labourers as they struggle to adapt to post-Soviet life and negotiate with the new bureaucracy in the face of ‘de-modernization’ and the loss of jobs, wages, and in many cases, access to productive land. This research demonstrates that the means by which the Tajik government expanded food production has contributed to agricultural problems apparent at the time of independence.

Keywords: agriculture; post-Communist land tenure; law; water management; Tajikistan

Introduction

The post-Communist experiences of the countries of the former Soviet Union have been extraordinarily disparate as experiences from the Baltic countries to Russia to Central Asia have revealed major differences based on geography, culture, ecology and politics. This has produced a wide range of economic and legal scenarios coming from ostensibly similar command economies. However, as *de facto* primary commodity producers of the former Soviet Union, the independent countries of Central Asia have struggled in ways that may be better understood by thinking in terms of de-colonization rather than comparing the region to the Baltic republics now in the European Union or the Slavic republics. This analogy is even more compelling when the relative economic situations are analysed, as over the past 16 years Central Asia has been the only region in the world where poverty has been steadily increasing (Babu and Sengupta 2004). Although all five Central Asian countries have experienced difficulties in the transition to market economies, Tajikistan has had the greatest difficulties in the wake of the collapse of the Soviet command economy due to its lack of marketable commodities such as oil, its emphasis on agriculture where the majority of the people in the country are employed, and its disastrous civil war of 1991–97. Independence and the cessation of the substantial economic inputs into the republic by the central government in Moscow left Tajikistan economically vulnerable, especially since its entire infrastructure continued to be oriented towards the Union republics, primarily Russia via Uzbekistan. The regionally based, intra-ethnic conflict that then engulfed the southern part of the country worsened the situation immeasurably and sent the economy spiralling down with a negative gross domestic product (GDP) rate and the collapse

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of the negligible existing Soviet industry. By 1996, Tajikistan's GDP was only 30% of its 1988 annual GDP (Dunford and Smith 2000) and the country had witnessed (for want of a better word) the worst 'de-modernization' of any of the other republics. Economically, Tajikistan hit rock bottom in 1997, when the major combatants signed a peace treaty that officially ended the civil war though sporadic fighting would continue through 2000 (Rubin 1994, Akiner 1997, Rowe 2002, Babu and Sengupta 2004).

Although economists, political scientists, and to a lesser extent political geographers have documented agrarian reform after the fall of the Soviet Union,¹ there has been less work on ecology or local economies with rare examples in *Economic Geography* by Beth Mitchneck and in *Central Asian Survey* by Jyldyz Shigaeva *et al.* (Mitchneck 1995, Shigaeva *et al.* 2007). In Central Asia, authors have addressed politics, law and economics through issues related to a regional policy rather than through local cultures, a situation exacerbated by a lack of linguistic proficiency that hampers many researchers as Russian loses its prominence. This is even more apparent when one deals with Tajikistan, the country that has received the least attention from academics because of conflict and a perception of ongoing violence. The dire economic situation of the 1990s is underscored by the most recent figures from 2000 where 67.2% of employment was located in the agricultural sector (Anderson 2002) yet the agricultural GDP fell by 27.7% between independence in 1991 and 2000, leaving more than half of the rural population underemployed, a fact exacerbated countrywide by an 80% drop in industrial output during the war (Akiner 1997, Liebowitz 1992, Rubin 1994). Therefore, an analysis of the laws and socio-economic adaptations that have occurred in this republic would be of great benefit to those interested in land reform, post-Communist legal reforms, and ecological adaptations made in a post-conflict context. This paper will address the legal changes the Tajik government has enacted over the past 17 years and how these changes have affected the way that farm labourers and others in the agricultural sector have adapted and changed since the fall of the Soviet Union. This issue will be explored in the context of the set of laws promulgated by the government of Tajikistan that mirror the bureaucratic nature and structure of the former Soviet Union with respect to government involvement (some might say interference) with which farm labourers must contend and that have heavily impacted the agrarian economy and the people whose livelihood depends on it.

The research design initially involved interviews in the Hisor Valley of Tajikistan in 1999 and 2000 (in the aftermath of the civil war) with farm labourers and one-on-one interviews with local administrators. The Hisor Valley is approximately 60 kilometres long stretching from the capital of Dushanbe to the east through Lenin District² (located due west and south of Dushanbe – district capital, Somoni), Hisor District, Shahrinav District, and Tursunzade District, the latter extending to the border with Uzbekistan to the west (see Figures 1 and 2). During 2000 and subsequent years, critical additions to the research design were included involving further data gathered from government officials and non-governmental organization (NGO) workers as well as with officials at the World Bank. Initially, the three types of data collection tools included 236 interviews using a 19-point questionnaire, 16 guided group interviews, and 101 open-ended conversations that included participant observation³ as well as follow-up interviews in 2003 and ongoing conversations over the past six years to track changes. Starting in 2000, the research expanded to include 73 questionnaire-based interviews with local and regional administrators, both at the governmental (both provincial and national) and farm labourers' cooperative level. These interviews and relationships have also been ongoing since the initial fieldwork began in 1999. Spatially, the farm labourers interviewed were sampled from 16 villages, four from each district – Tursunzade, Shahrinav, Hisor and Lenin. Given the general geographic uniformity of the four districts (each district runs north to south from mountains through foothills to central agricultural valley back to low mountains), two villages from the valley proper were chosen for the questionnaire-based



Figure 1. Map of Tajikistan.

Source: Map by William Rowe (Department of Geography and Anthropology, Louisiana State University) and Mary Lee Eggart (Cartographic Division, Louisiana State University).

interviews as well as one each from the foothills to the north and south of each district. With the more open-ended conversations, farm labourers were chosen throughout the valley with no specific emphasis on ecological conditions.⁴

The transition of collective and state farms to ‘*Khojagi-i Dehkoni*’

According to the government of the Republic of Tajikistan, all collective and state farms should have made the transition to *khojagi-i dehkoni*, or farm labourers’ cooperatives, by the year 2000. The civil war, the fear of ‘shock therapy’ used in other formerly Communist countries like Russia and Mongolia (Nixson and Walters 2005), as well as fear of wholesale abandonment by farmers of cash crops, particularly cotton, caused this process to go considerably more slowly in Tajikistan. According to officials at the Ministry of Agriculture, the transition was successfully accomplished in 1999. However, this assumed transition means little to farm labourers since it basically changed the name of their enterprise and little else (see also Spoor 2004). Farming enterprises are discussed in the Tajik Legal Code ‘On *Dehkon* (Private) Farms’ which describes them as cooperatives, run by citizens, and subject to governmental oversight (Oymahmadov 1997). Like the government itself, the presidents and directors of the farm labourers’ cooperatives, in most cases, are the same men and women who were in those posts under the Soviet regime and have carried over into the new system (in 2000, the key year for this transition, I only found two presidents installed after independence in the Hisor Valley). In the Hisor Valley, there are presidents who either strenuously correct people who refer to the entities

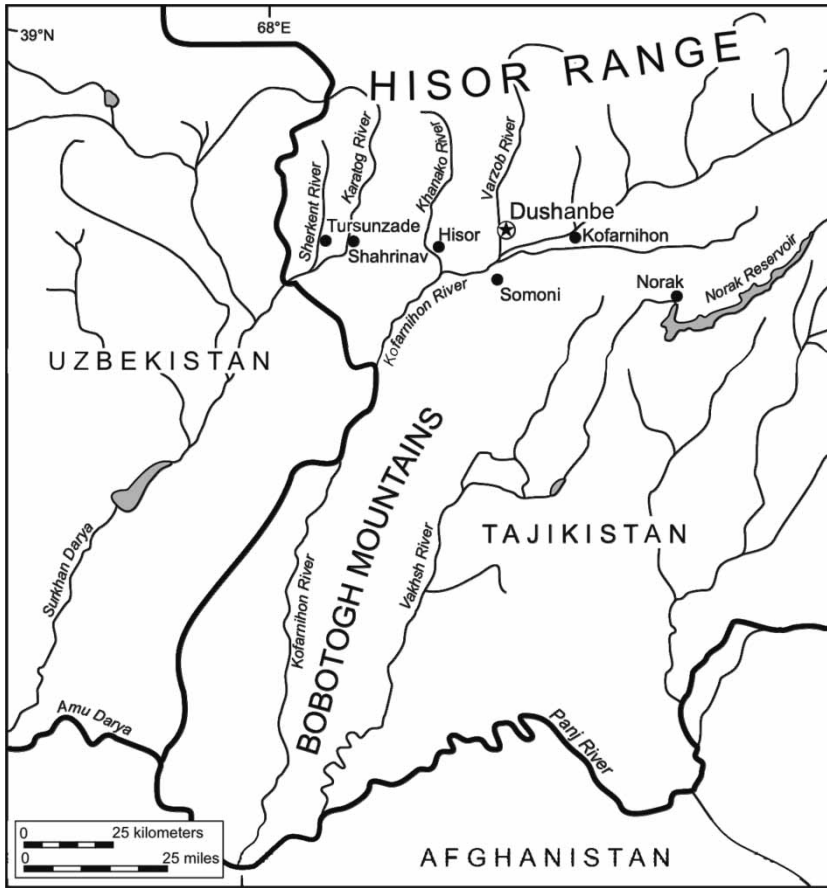


Figure 2. Map of Tajikistan and the Hisor Valley.

Source: Map by William Rowe (Department of Geography and Anthropology, Louisiana State University) and Mary Lee Eggart (Cartographic Division, Louisiana State University).

as collective or state farms or, on the contrary, refuse point blank to use anything but the old Soviet names and will freely admit that virtually nothing has changed. These men (and one woman) do not even bother with the new names, but refer to the farming enterprises by their old names such as *Kolkhoz-i Leningrad*, *Sovkhoz-i Roh-i Lenin*, and so on. The implication of this is clear: in Tursunzade and Hisor Districts, where I found this prevalent attitude, there is little privatization. This further complicates Tajikistan's economic position, since the World Bank, for example, has shown unwillingness, in principle, to loan money to countries that show little evidence of privatization (see also Rolfes 1999, Roy 1999, Mohib and Yatamov 2004).

This corroborates the interview data provided by the four district governors in the Hisor Valley who freely admitted that much of the cosmetic change that took place can be attributed to a desire to obtain foreign aid, which various international agencies had given to other republics when they could demonstrate that change had occurred. Although officials at the United States Agency for International Development (USAID) and the World Bank claim they do not put conditions on credits or loans to Tajikistan, they did note that prior to 11 September 2001, certain reforms of the command economy were expected to be in place for them to consider giving aid to the government. Since 11 September 2001 and the participation of Central Asian countries in global

anti-terrorism efforts, they have allocated more money for the region, and have already started implementing small irrigation and agricultural programmes (see also Mohib and Yatimov 2004).

Water and land laws today

According to Section 1, Chapter I, Article 3 of the ‘Water Code of the Republic of Tajikistan’, the state water fund consists of all ‘inner rivers, lakes, reservoirs, channels, subterranean waters, and glaciers whose water is situated in the territory of the republic’. There is some confusion, however, in the laws about land ownership. Chapter 1, Article 2 of the Land Code of the Republic of Tajikistan states that ‘Land in the Republic of Tajikistan is an exclusive ownership of the state. The state guarantees its effective use in the interests of its citizens. *Certiorari*⁵ of lands, which belonged to the ancestors, is banned.’ However, in Chapter I, Article 4 of the Law on Ownership in the Republic of Tajikistan the law states that land and water *can* be owned. This has created an interesting situation in Tajikistan whereby land that is demarcated as associated with a citizen’s home or is in some way seen as ‘under-utilized’ is the legal property of citizens, yet exclusively agricultural land remains the property of the state (Oymahmadov 1997). These laws have been stable thus far and none of the four provincial administrators (Tursunzade, Shahrinav, Hisor and Lenin Districts) within the Hisor Valley could think of an instance where land had been confiscated or re-classified from private to public ownership. This compares interestingly with Kyrgyzstan and Uzbekistan where a 1998 referendum in Kyrgyzstan amended the constitution to read that ‘land . . . may be under private, state, communal, and other forms of ownership’ (Law of the Kyrgyz Republic 1998, Shigaeva *et al.* 2007) and Uzbekistan where the Constitution of Uzbekistan states that land shall be rationally used and protected by the state, with no mention of private land (Rolfes 1999).

With respect to water laws pertaining specifically to agriculture, Section 2, Chapter XI, Articles 58–71 are the most pertinent. Of most interest, due to the Soviet history of the republic when administrators dedicated most of the land to crops with a larger industrial component, is Article 59 which explicitly points out that water’s agricultural use has as its primary function to ‘create favorable water regimes on irrigated lands . . . for the increasing of productivity of cotton and other agricultural operations . . .’ That cotton is particularly singled out in the laws governing agriculture is no accident. Cotton continues to be the primary source of income for the government who therefore sees the continuation of cotton production within its borders as paramount to its economic interests (Oymahmadov 1997, Butler 1999, Mohib and Yatimov 2004).

As such, the Hisor Valley is representative of the available agricultural land countrywide as it, along with the Vakhsh and Syr Darya River Valleys, constitutes one of the three most important cotton-growing regions in Tajikistan. However due to the arid environment, agriculture is limited by the reach of the irrigation system and can only actively contribute to Tajikistan’s economy if the water management system works properly. Of note to the story of irrigation in the Hisor Valley is that it consists of two nearly equal parts. The western half of the valley (from the city of Hisor west to the Uzbek border – see Figure 2) has known irrigated agriculture since the time of the Achaemenid conquest during the reign of Cyrus the Great – 559–529 BC (Cook 1985). However, in the eastern half of the valley and in the foothills of the Bobotogh Mountains, large-scale irrigation is a more recent, Soviet phenomenon and farm labourers accessed water either through specially constructed concrete channels or with gasoline-powered pumps. After the break-up of the Soviet Union and the need to import petroleum products, neither the government nor the people can afford to use pumps. Also, due to the tectonic activity in the area, many of the irrigation channels have cracked due to repeated earthquakes. In interviews between 2000–2008 with foreign NGOs (particularly CARE International who has worked specifically in the Hisor Valley) and the World Bank, local representatives of these

organizations cite canal maintenance and construction as the most pressing needs in the lives of farm labourers, particularly in the eastern part of the valley. Prior to independence, the Soviet government was responsible for the maintenance of irrigation systems. Today, the responsibility for these irrigation systems has largely broken down, and all too frequently no one is accountable for any upkeep. Individual farm labourers do not have the means to oversee the maintenance of expensive irrigation systems and since they own very little land, do not see the benefits of expending time and labour on something from which they will probably never profit. In the meantime, the cooperatives have their hands full keeping the water running on the main agricultural lands devoted to cotton on which their livelihood depends.

Local officials in the Hisor Valley readily acknowledge that there is a problem in securing funds for the construction of new canals or the maintenance of older, expensive canals. However, officials in all four districts stress that everything possible is being done to maintain existing, earthen canals that by-pass cracked or damaged canals within the central part of the valley (of highest concern amongst the farm labourers in the eastern half of the valley who make do with the Soviet built systems [Spoor 2004]). Farm labourers who work on the best land in the central part of the valley, where the primary crop is cotton, have few if any complaints about the provision of water to their crops. However, most have had or continue to have problems with irrigation for household plots and other private land. Farm labourers interviewed in villages in the foothills stressed that the bureaucracy with which they negotiate is too new, too confusing, and too exhausting to effectively get anything done on land that does not grow cotton or other commercial crops. In the eastern part of the valley where the situation is dire, different groups of farm labourers did bypass the bureaucracy and banded together to dig new canals in the ground parallel to the existing, raised concrete canals that had cracked. These canals serve the same purpose as the raised ones; however, there is the new problem of water seepage, as the farm labourers have no means to pay for concrete with which to line the canals, concrete that in any case would have to be imported as all the concrete manufacturing in the valley (and most throughout the country) ceased due to the civil war.

The other part of the system, drainage, receives virtually no attention in Tajikistan. In the course of three summers between 1999 and 2003, I visited every farm labourers' cooperative in the Hisor Valley and surrounding foothills. Among the 117 drainage canals I observed on these farms (all of which the Soviets built or modified), I never saw a single one that was unblocked or which, if not actually blocked, did not have stagnant water that could back up into the tertiary canals. The purpose of continued maintenance of drainage systems in arid environments is to prevent salinization. Spokesmen for the Ministry of Agriculture in the capital, Dushanbe, claimed when I later interview them that salinization was not a problem in Tajikistan, only downriver in Uzbekistan⁶ and Turkmenistan. Because salinization had not occurred historically, resources need not be diverted towards maintenance of drainage canals. However, the issues pertaining to poor drainage in Central Asia were extensively detailed in David Smith's 'Salinization in Uzbekistan', issues that led directly to the crisis that affects the lower Amu Darya Basin (Smith 1992). Although Tajikistan contains the glaciers from which the Amu Darya and many of its tributaries flow, allowing for proximity to offer a higher degree of water purity, this does not negate the fact that both Uzbekistan and Tajikistan are similarly arid, and though soil in Tajikistan has shown little signs of salinization so far this does not mean that it *cannot* become salinized.

Modern land-use categories

In the wake of the fall of the Soviet Union (though delayed until after the various parties signed the peace treaty that officially ended the civil war in 1997), some of the changes the government

has instituted *vis-à-vis* farming and land are to reorganize land tenure and land usage, according to new criteria and the availability of water for irrigation. As in Russia and in the other newly independent countries of Central Asia, the state defined agrarian reform and controlled the manner and pace at which land reform would be enacted, a pace that was slow and piecemeal in Central Asia – with the sole exception of Kyrgyzstan (see Butterfield 2001, Giovarelli 2001, Lerman and Brooks 2001, Deshpande 2006, Shigaeva *et al.* 2007). In Tajikistan, these changes reflect an attempt to create a balance between historical usage (both Soviet and pre-Soviet) and the new desire for private ownership. As the most important resource for cotton production, the state and local governments continue to tightly control the best irrigated land. The government also regulates the use of water in relation to categories of land set up by the state. Certain types of landholding have broader access to water than others and as such have varying degrees of control placed upon them. To have access to any of the categories of land, a member of a household must be a member of the farm labourers' cooperative and live within the precincts of that cooperative. These categories include leased lands (plots that are leased by a farm labourer for a fixed term), presidential lands, 'private-use' lands, private lands, and garden plots (see Table 1).

Each of these can be defined and classified as follows:

Leased (Arenda) land

Leased land is owned by the farm labourers' cooperatives and is allocated from the best lands within a former collective farm in the valley. Overall they constitute the largest amount of agricultural land, around 45% (Foroughi 1999), in the Raion of Republican Subordination (RRS). (See also Table 1.) The state guarantees the lease, but the cooperatives oversee and are responsible for the execution of the contracts that the cooperative enters into with the farm labourer. The farm labourer is responsible for growing the crop specified by the cooperative and delivering a predetermined quota of that crop based on the past performance of the land. The cooperative is responsible for providing water, fertilizer, pesticides, and all other material input to the crop. Article 9 removes any doubt about ownership of these lands: 'The grant of the property on lease does not transfer the right of ownership' (Oymahmadov 1997). This category of land remains the most restricted in terms of crop choice, and cotton continues to be the most important crop grown on this land wherever ideal conditions exist.⁷ Generally leased land has been irrigated; however, since the civil war and the resulting economic crisis, some leased land has lost access to water either through damaged canals or because irrigation depended on gas-line-powered pumps, which are now too expensive to use.

In terms of the size of the leasehold, the state and farm labourers generally specify the amount of land in terms of *sotiqs*, which equal 1/100th of a hectare. Within the four districts comprising the Hisor Valley, the average amount of leased land per family is 100 *sotiqs* or

Table 1. Land tenure among interviewed families in the Hisor Valley. (Families per district out of number of families interviewed).

Province	Type of land tenure				
	Leased	Private	Presidential	Private-use	Kitchen garden
Tursunzade	2/38	0/38	24/38	21/38	38/38
Shahrinav	7/62	2/62	18/62	21/62	59/62
Hisor	23/65	4/65	15/65	33/65	64/65
Lenin	23/71	15/71	23/71	10/71	68/71

one hectare, although this tends to decrease from east, the newest land brought under irrigation by the Soviets, to west, the historically longest-used land in the valley. Considerably fewer families interviewed in the westernmost district of Tursunzade lease this type of land. The average amount of land held by the few who did so was only 40 *sotiqs*, but this was along the Sherkent River and used specifically for rice production where the hectareage allotted per family tended to be smaller and the soil extremely fertile (see Figure 2).

Not all families have leased land and not all families necessarily want leaseholds, but in many cases a member of the family will apply for leased land so that there is a stable income of sorts within the family, however small. The lease is supposed to be negotiated between the cooperatives and the farm labourer; however, the *Hukumat* (district executive) puts pressure on the cooperatives to grow cotton wherever possible to ‘placate the government in Dushanbe’. Out of 236 families responding to the questionnaire, only 55 had leased lands (see Table 1). For many, the problem was that the land was too far away from their homes and they had no means of either regular or reliable transportation. This generally applied to people who lived in villages along the edges of the Valley, particularly in those located in the Hisor Range and its foothills and the villages in the Bobotogh foothills. For others, the lack of an appropriately aged male member of the family to maintain the plot because of migration to Russia, a lack of sufficient land within the cooperative on which they lived, or, in the case of some families in Tursunzade District, a perceived bias against them because of their Tajik ethnicity in an Uzbek majority district, prevented them from obtaining leased land.⁸ As an example, 14 families in the village of Kuhnaboy, located along the Kofarnihon River south of Hisor, were interviewed. Eight families among them had leased lands (the highest percentage in the valley as a whole), three families had tried to get leased lands and had been told none was available, three had no appropriately aged male household member because of seasonal labour migration to Russia to work, and one felt that the pay involved was not worth the work required.

Presidential (Zamini Presidenti) land

Presidential lands comprise 75,000 hectares of ‘under-utilized’ land overseen by farm labourers’ cooperatives, which Presidential Decree number 342, enacted on 9 October 1995, made available for private use to alleviate poverty at the cooperative level. The decree temporarily transfers a plot to households for use as basic extensions of their private garden. The plots cannot exceed 15 *sotiqs* if they have access to irrigation. Larger unirrigated plots of presidential land are found in hillside areas and are frequently of better quality than other land categories (such as ‘private-use’ plots, see below). Eighty families interviewed had access to presidential land (see Table 1). Villagers with presidential land within the central part of the valley have between five and 12 *sotiqs* and use this land for vegetable gardens that require irrigation or a great deal of sunlight, as most people use their kitchen gardens for fruit trees or grape vines which produce a lot of shade. Presidential land outside the central part of the valley, though unirrigated, is located on the lower slopes of hillsides or between hillsides and are not as subject to erosion. These plots range between 15–100 *sotiqs*, and the farm labourers produce wheat, barley or sesame on the lands in the spring.

Private (Zamini Khususi) land

Section 1 ‘On *Dehkon* Farms’, Articles 2, 3, 5, and 6 of the Laws of the Republic of Tajikistan define private land and stress the availability of this land under current law; however, though the government considers kitchen gardens (discussed below) as private, very little land not immediately adjacent to a farm labourer’s house is actually private. Therefore, this is not a common

form of land tenure in the Hisor Valley except in Lenin District immediately west and south of Dushanbe. Out of 236 families interviewed by means of a questionnaire in the Hisor Valley, only 21 had private land (see Table 1). Of these 21 families, 15 are in Lenin District. In many cases, the decision on allocating private land is in the gift of the *Hukumat* and the *Jamoat* (the local executive). The *Hukumat* of Lenin District, in conjunction with a foreign NGO, CARE International, who established an early and visible presence in the Hisor Valley, allocated, by means of 99 year, renewable leases, a great deal of mostly unirrigated land as private. The negotiations included CARE International as they represented the largest NGO operating in the Lenin District and had directly tied their aid to the district with the allocation of private land. This land was generally marginal and had lost money in recent years. This trend is in line historically with 'virgin' land categories made available to farmers in pre-Soviet days. The idea continues to be that if you can make marginal, underutilized, unirrigated land productive, you have a right to its proceeds.

As a general rule prior to 2001, the government converted very little land to private status and the bulk remained either leased, presidential, or in private use. In conversations with representatives of the World Bank (who wished to remain anonymous) it appeared that since 11 September 2001, the international community has shown a greater interest in the region and new plans (and new pressures) for change have begun to be implemented. One of the great hindrances to obtaining private leased land was the prohibitively high fee charged to farm labourers of US\$200 for drawing up the contract and reassigning the land. The government has reduced this fee for private citizens to US\$6.00 and in the past two years, farm labourers have purchased 99-year leases on 2800 farms that can be bequeathed and altered without prior approval from a governing body (see also Giovarelli and Hanstad 1999). The World Bank representative went on to state that much of this land was irrigated and not just unwanted, marginal land.

Private-use (Zamini Lalmi) land

Private-use land is frequently mentioned in Tajikistan but can only best be described as land that is not leased, not presidential, and not private. It is land owned by a cooperative, which is available to farm labourers for private use in whatever way they wish. These plots of land are generally marginal (on hill slopes) and 'under-utilized' by the cooperative. This land differs significantly from leased private land in that no fee is paid to the cooperative for its usage; however, taxes must be paid on whatever income the farm labourer makes from the land.

Apart from three exceptions, all private-use land amongst the farm labourers interviewed was unirrigated and located on far hillsides (for residents of the central part of the valley) or, if they lived along the edges of the valley in the foothills of the Fan or Bobotogh Mountains, around the village.⁹ The government, through the cooperatives, opened private-use land as an emergency effort to increase the caloric intake of rural residents when cereal shipments ceased after the fall of the Soviet Union by providing land on a temporary basis to cultivate spring wheat, barley or sesame. The government realized that opening these lands would cause erosion problems and degrade the land, but the idea was that farm labourers would only use this land on a temporary basis. Not surprisingly, the use of this land has continued and wheat is still sown in the late winter to take advantage of the spring rains. Turning the soil, removing the vegetation from the previous season, and planting all contribute to leaving the slope vulnerable to rain splash, sheetwash and rill erosion. Due to the lack of rain in the summer months, no new vegetation grows after the June harvest and will not do so until after the autumnal rains have begun, further increasing the chance for erosion. This, in turn, causes large amounts of sediment to wash down into the river systems, further choking irrigation systems already clogged from neglect and a lack of upkeep.

The drought of 2000–2001 and the severe lack of rain in 2008 showed just how much farm labourers have grown to depend on this land. Because of a paucity of winter snow and spring rain, the crops grown on this land failed to produce enough to cover seed stocks for the following year, let alone provide any significant amount of wheat for the year. Because of the shortfall in private-use production, many families, who had successfully averted overt hunger in their family since the end of the civil war, faced privation. Therefore, most farm labourers cannot countenance the loss of these lands without an intervention on the part of the government to provide them with wheat and bread.¹⁰

Kitchen gardens (Zamini Bogh)

Kitchen gardens are technically part of the private land mentioned above and constitute 23% of agricultural land in the RRS (Foroughi 1999), which is high compared to the 16% average of the former Soviet countries (Lerman 2003).¹¹ Section 1 ‘On *Dehkon* Farms’, Article 6, Paragraph 2, states that ‘the farm allotment at the house is kept for the citizens who have received the land plots, for conduct of *dehkon* farms and having an apartment (or) house in the village settlement.’ Therefore the government allows citizens to own their homes and the immediately adjacent property (Oymahmadov 1997).

Although the produce from these gardens were supposed to be strictly for subsistence use, a burgeoning market for ‘fresh’ fruits and vegetables developed throughout the Soviet period and households concentrated on certain crops that would net them a larger profit in the bazaars as they could get them there more quickly than the collective or state farms (Bikzhanova 1959, *Kommunist Tajikistana* 1962, Bacon 1980, Kitching 1998, Hann 2003). This should come as no surprise as kitchen gardens were the one place where farm labourers could show initiative. In interviews throughout the valley, farm labourers confirmed that production on collective farms had fallen as many workers concentrated on private plots. Any surplus produced there went directly into the pockets of the farm labourers as opposed to the collective farm where they got paid their salary regardless of how much effort they put into their work and where any surplus went to the farm.

After the outbreak of the civil war, inflation rose to over 7000% (levelling off in 1997 at the end of the civil war to 165%) and real wages fell even further than the GDP, which fell nearly 60% between 1991 and 1996 (Falkingham 2000). This situation caused increased hardship as political uncertainty was augmented by economic uncertainty, especially the concern over the position of land ownership. From this standpoint with only seven of 236 families who participated in the survey not having a plot of land adjacent to their homes, kitchen gardens became all the more important as they were the one continuous category of landholding on which people could rely (Kitching 1998, Spoor 2004). However, exceptions occurred along the periphery where homes previously had pump-irrigated gardens, but now the families could no longer afford the petrol for the pumps and their gardens have consequently died (Rowe 2009).

The effects of land laws on crop choice

When looking historically and culturally at Central Asia, it is difficult to make the argument for the kind of neo-liberal economic reform required in post-Socialist countries by such multinational entities as the World Bank. The agrarian population, as in the rest of Eurasia, has continuously lived in a communal agricultural set-up since well before the Soviet period (Hann 2003). During the Soviet period, collective and state farms replaced community sharecropping in Tajikistan, but production decisions continued to be out of the hands of farmers (now deemed farm labourers) and the productive river valleys of Tajikistan essentially became cotton plantations.

Immediately after the fall of the Soviet Union, Tajikistan suddenly had to pay for food imports that produced a marked decrease in consumption throughout the country (Ericson 1992). This is, however, a continuation of a trend started in the mid 1980s when the economy of the Soviet Union as a whole began spiralling downward. Then, Tajikistan already had the lowest *per capita* consumption of goods of any other republic (Atkin 1997) and the lowest mean *per capita* monthly income in the Soviet Union at 46%¹² of the mean relative monthly income of a collective farm family in Russia (Atkinson and Micklewright 1992, Falkingham 2000). In the chaotic years of the civil war, decreased caloric intake resulted in extreme hardship for many people.

At this time, the government began to open private-use and presidential land and converted small amounts of irrigated land to wheat, vegetable, rice, and other food crop production. To do this, administrators had to rotate some lands out of cotton production causing the amount of land in cotton production to fall to between 60–70% of the 1990 level, which then constituted approximately 85% of all irrigated land (Atkin 1997). Any rotation of land out of cotton production is done most unwillingly at multiple levels as cotton represents approximately 20% of the GDP (second only to aluminium) and cooperative presidents and local governments take significant cuts from the profit before handing the produce over to the national government to sell abroad (see Mohib and Yatimov 2004). In general, what rotation has occurred has been in favour of wheat and vegetable production with the noticeable exception of the Sherkent Valley and along the Kofarnihon River (see Figure 2), where local *Hukumats* have allowed farm labourers to plant rice, the staple for their national dish – rice pilaf – due to the level gradients along these rivers. Rice production had been a staple crop but had fallen steeply in the early years of the Soviet Union from 15,200 hectares in 1928 to 5900 hectares in 1956, as collective farms switched into cotton production (Tachmurat 1959).

The other major cash crop, aside from cotton, from the Hisor Valley, was fruit, primarily apples, cherries and grapes. In the wake of the fall of the Soviet Union, many orchards along the edges of the valley were cut down to raise the overall percentage of arable land growing cotton primarily and wheat secondarily as the huge Soviet market for apples disappeared and there was less need for grapes for distilling into wine and other alcoholic beverages. This is in large part due to two trends: the first being the place of vodka in the secular, Soviet culture, the second representing the renunciation by non-secularists of alcoholic beverages in line with the recent Islamic renaissance. The cost of shipping also directly affected this decision as transportation costs had soared. This action did provide further land and allowed the new farm labourers' cooperatives to expand agricultural production for both cash crops and subsistence crops; however, it was not nearly enough to counteract the loss of Soviet inputs.

These decisions, like those for land tenure and land use, originated with the Tajik government and local authorities implemented them. Though the new name of 'farm labourer cooperatives' seems to imply a collective decision-making body, the reality on the ground belies this assumption. Farm labourers could technically gain access to all categories of land, but many impediments stand in their way. The first major impediment is the bureaucracy. Applying for land takes time and money. However, once the farm labourer receives permission to work land, new impediments arise. With leased land, the farm labourers' cooperative (in the form of its president) decides what is planted and pays the leasee not for the crop but a set monthly wage for his work at cultivating the crop. From 1997 through 2003, all farm labourers with leased land interviewed received either nothing or one month's payment per year for their labour. Among those participating in open-ended interviews, 21% of farm labourers had leased land, but none took the land for the wages involved. All leased land has border areas (for example between irrigation channels and roads) and other spaces where farm labourers grew vegetables for their households to augment their kitchen gardens. As fertilizers, water, and

other items are issued purely by a quantitative measure, farm labourers are able therefore to easily direct these inputs to other uses. Another incentive comes after harvest. All 55 households who had acquired leased land as well as 22 other households who belonged to cooperatives, but were unable to secure leased land, had access to surplus wheat, vegetable and fruit supplies from the cooperative. This surplus was parcelled out on the basis of household size.

Members of the farm labourers' cooperatives could theoretically obtain presidential and/or private-use land more readily; however, spatial constraints prevented many of them from obtaining the land and all farm labourers could only obtain land within the cooperative for which they worked. In general, cooperatives control many hectares of land that are not contiguous with its main administrative area. This is particularly true in the central valley as all cooperatives control land in the hillsides and mountains used formerly for grazing the cooperative's animals, but now they have reserved this land for private-use tracts.¹³ For farm labourers in the central valley, tiny presidential plots are available but they have difficulties in accessing the much larger private-use land on the hill slopes as the land is many miles away with no adequate transportation system to take them to the land. For those living further from the centre, the farm labourers' cooperative provided both presidential and private-use land, but without irrigation. This gave the farm labourers only the short spring growing season to augment their food supply or income, but left them prey to drought and hillside erosion as farm labourers left the hills denuded after the spring harvest and no growth occurred until after the autumn rains.

Apart from bureaucratic and transportation issues, another potential impediment exists: the ability to access and influence the government at both the local and national level. The interactions between local and national government officials resembles the situation found in Uzbekistan whereby the district administrations in Tajikistan remain loyal to Dushanbe while the local farm labourers similarly are constrained by the hold the *Hukumats* have over water especially (Trevisani 2007). Two examples are illustrative of this situation. All 55 farm labourers with leased land expressed a desire to have greater control over crop decisions and were especially desirous of growing rice; however, only one of them was able to act on this desire. The farm labourer in question lived in Tursunzade District and had land in the lower Sherkent River Valley. The *Hukumat* of Tursunzade District stressed in an interview that because this area was historically a rice-growing region and had easy access to gravity-fed irrigation water due to its gentle slope, permission had been given to convert the land from cotton production. As alluded to previously, this district has a significant Uzbek population and I could only find this one farm labourer throughout the lower Sherkent who spoke Tajiki. For the other 10 households in that village with whom I conducted questionnaire-based interviews, none had access to leased land though all had applied for it. When questioned, all 10 replied that the reason given was that no land was available; however in the past two years, seven plots of land had been issued – all to Uzbeks with ties to the office of the *Hukumat*. The second example is quite straightforward. The average size of private-use land in the Hisor Valley is 96.2 *sotiqs* and only four of 119 households with this category of land had access to irrigation. One of those four unusually had 2700 hectares of irrigated, private-use land. This was an extreme anomaly and I was repeatedly rebuffed from sources in the government and the cooperative when I asked how this was possible. I later found out that the head of this household was a close relation to the *Hukumat* of Lenin District.

Conclusion

With the advent of the small-scale presidential lands, the reduction of land set aside solely for cotton and apple production, the advent of private land, and the mosaic of private-use land along the hillsides on both the north and south sides of the Hisor Valley, the valley has undergone the

largest land use change since collectivization in the 1930s. These changes have not, however, been systematic in their implementation, have not been used to reverse the collectivization process engineered under the Soviet Union, and have not increased the amount of power wielded by farm labourers. Instead, these changes are the work of a government that does not want to change the economic, social or cultural *status quo* of the rural countryside.¹⁴ To do so would potentially stop, or at least severely limit, the amount of cotton produced by workers on the farm labourers' cooperatives, an unacceptable outcome as this continues to be one of the two largest sources of hard currency for the government. Each administrative level through which cotton and other agricultural goods passes, from cooperative president to the Ministry of Agriculture, gains from this system and change is unlikely given vested elite interests. Families are therefore forced to diversify their means of acquiring cash, food and goods through the hodgepodge of land opportunities made available by the government. Where feasible, families will try to acquire all types of land categories in order to diversify their options for crop production and to piece together the means of survival.

Privatization in the neo-liberal sense used by the World Bank (see Mohib and Yatimov 2004) as both a term and a process is fraught with meaning that seemingly provides no leeway for local discourses. Culturally, most Tajik farm labourers are not ready for full privatization of land as production beyond a subsistence level has been a communal affair both before and during the Soviet period. As such Tajik agricultural practices were never 'disembedded' from the land, to borrow Chris Hann's term, through the disruptive effects of capitalism within efforts, like the enclosure movement in England, stemming from the Industrial Revolution (Hann 2003). Tajiks have continuously taken part in communal agriculture and there was no need for 'reembedding' Tajiks into communal agriculture like they had to in places like Ukraine. Yet the current battery of half measures instituted by the Tajik government is untenable in pushing Tajiks towards a more liberal economic mode of production and enables heavy graft at all administrative levels as the proceeds of cotton production end up in the hands of administrators and officials at all levels of government and the highest levels of the cooperatives. Solutions that propose compromises whereby communal and private enterprises can coexist and compete against each other without government interference therefore need to be explored. In an important study comparing Hungary and Bulgaria, Mieke Meurs outlined a situation in Hungary whereby in a dual system of private *versus* communal property owners compete against each other and the competition has spurred communal organizations to improve to the level demonstrated by private farmers (Meurs 2001). This compromise would allow entrepreneurial farm labourers to control the means of production and would allow others to opt for a communal effort that would potentially give them greater security, but without the direct remuneration, and would lessen land fragmentation and a move towards subsistence that so worries the government in Dushanbe. As seen earlier in the laws of Kyrgyzstan, this dual system is already legally in place (Shigaeva *et al.* 2007). Hope for greater entrepreneurial initiative may be had if we examine the levels of financial and human investments in kitchen gardens of the Soviet and post-Soviet years, the creativity involved in putting together a sustainable livelihood from the patchwork of means available to rural citizens, and the currently young generations who do not have the economic or psychological baggage of the Soviet years. New generations of farmers without the memory of the collective farm system could take advantage of a more flexible system and create a greater sense of independence that could lead to important developments such as the creation of a land market.

The Hisor Valley therefore stands as a striking example of the difficulties the former Soviet republics continue to face in their bid to create viable economies from a system that was never meant to make the transfer to private ownership. The citizens of Tajikistan and their government must negotiate a position in which the cultural tendency towards communalism can exist with

the drive towards privatization in an effort to raise the economic viability of not only the national economy, but also individual livelihoods. With poverty levels remaining stubbornly high throughout the country and with two-thirds of the population employed in agriculture, the outcome of these land tenure and privatization issues are crucial to allow Tajikistan to develop both economically and socially.

Notes

1. See especially Kitching (1998), Hutton and Redmond (2000), Engelmann and Pavlakovic (2001), Skyner (2003), Spoor (2003), and Babu and Sengupta (2006) as examples.
2. Since my most recent fieldwork in Tajikistan, the Tajik government has changed the name of this district from Lenin to Rudaki. It is unusual for people to quickly adapt these name changes and all contacts I have maintained continue to refer to the district as Lenin District. Therefore, I have maintained the use of that name in this paper.
3. Note: 33 of these were also given a questionnaire-based interview.
4. Of the 337 combined interviews, most were held in Lenin, Hisor and southern Shahrinav districts as I had been warned away from northern Shahrinav District due to a large military base located along the Karatog River to the north of the provincial capital. In Tursunzade District, I conducted as many interviews as possible; however, due to the large population of non-Tajiki, non-Russian speakers and the restrictions on travelling near the border, the number of interviewees there was lower.
5. This is the word written in the law. It is a Latin infinitive (present passive) used in legal texts to mean 'to be appraised of'.
6. In the 2000–2003 report by the Department of Irrigation, it was found that '35–36% of the total length of main and inter-farm collector drains in Uzbekistan required repair and cleaning' (Tashmatov and Tashmatova 2006).
7. For comparisons with Uzbekistan, see Kandiyoti (2002) and Trevisani (2007). For comparisons with Turkmenistan, see Lerman and Brooks (2001).
8. The largest minority in Tajikistan is Uzbeks. While conducting interviews and field research in Tursunzade District (along the border with Uzbekistan), it was frequently very difficult to find people who spoke either Tajiki or Russian. In the village of Asbob particularly, I could not find anyone along the Sherkent River who spoke Tajiki and only after much inquiry located a large concentration of Tajiks on the hillsides above the Sherkent Valley where few people possessed access to land with any irrigation. Many spoke indignantly about the fact that I could go from house to house along the Sherkent and never find a Tajik, only Uzbeks. While I cannot say that I visited every household, I never did find anyone who spoke Tajiki and, unfortunately, I do not speak the Uzbek language. When I asked the Tajiks if they had applied for leased lands, all eleven families interviewed replied that they had, but all but two had been told that there was none available. The two families interviewed who did have leased lands lived in the area mostly inhabited by Tajiks and had land in the lower Sherkent at a distance of several miles.
9. The geography of the district can severely limit the amount of private-use land available. Farm labourers in the north of Lenin District were at a disadvantage because the borders of the district, and thus of the collective farms within the district, did not extend into the foothills, which belonged to Varzob District. This meant the people of the village of Choryakkoron, for example, did not have any private-use land and did not have the supplemental land that others could claim.
10. See FAO/WFP Crop and Food Supply Assessment (2000) where overall production of wheat in the RRS was 70% of production in 1999, which in turn was 173.1% of the production in 1991. See also Morgounov and Zuidema (2001) for further information.
11. The RRS figure takes into account the larger plots in the non-irrigated mountainous areas.
12. The average, monthly, household gross per capita income in 1989 in Tajikistan was 82.94 roubles as opposed to 178.65 roubles in Russia (see Table U13 in Atkinson and Micklewright [1992]).
13. The number of livestock held by farm labourers' cooperatives has declined since independence while the number of privately held livestock has risen from around 53% of livestock to over 70%. The collective and state farms own only about 30%, and in the case of cattle, only about 15% (Suleimenov *et al.* 2006, Rowe 2009).
14. See Hickson (2003) especially for those changes deemed 'important' by the legal authorities within the Tajik government. See also Trevisani (2007) for a similarly conservative approach in Uzbekistan.

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