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Abstract

As part of the ongoing process of agricultural transformation in Central Asia, including Uzbekistan, agricultural service organisations are undergoing a process of reinventing themselves. This paper aims to analyse this process by offering empirical insight into a machine-tractor-park (MTP) in the Khorezm region, Western Uzbekistan. In Khorezm, the ongoing process of agricultural transformation has resulted in unclearly defined and new social functions for the MTP, while former (Soviet) social functions associated with it have not entirely been dismissed. Consequently, the MTP has had to reinvent itself in terms of its goals, strategies, management style, way of working and thinking, and its overall role, function and responsibility in society.

Keywords:

agricultural transformation process, agricultural service organisations, transition, patron-client relationships, clientelism, machine-tractor park, Uzbekistan

1 Introduction

The Uzbek government maintains strong control over agricultural production, in order to secure food stability in the country and to employ the country's rural population (Wehrheim et al., 2008). Since 1991, Uzbekistan has experienced a chain of agricultural reforms beginning with the subdivision of former collective farms (kolhozs and sovhozs) into joint stock companies (shirkats) between 1991 and 1998. Between 1998 and 2003, these were then 'privatised' and subdivided further into small, individual farms (Veldwisch 2007; Lehrman 2008; Trevisani 2008). This process of de-collectivising land crucially modified inter-human relationships within the agricultural production system, as well as between the now diverse group of agricultural actors and the state. In November/December 2008 (within less than a month), nevertheless, farm land (under the cotton and wheat state plan) was re-consolidated again, merging several individual farm enterprises (of 10-25ha each) into bigger farms (of 75-150ha). The selection of fermers¹ who continued to remain fermers or became landless depended on their performance with regard to the production of state-ordered crops in the previous years, according to official records (Djanibekov, Lamers et al. forthcoming). Similar adjustments, but to a smaller degree, were made at the end of 2009.

As part of this ongoing process of agricultural transformation, agricultural service organisations (AgSOs) responsible for the provision of agricultural inputs, sales organisations and financial and insurance services underwent numerous changes (Niyazmetov 2008). Originally, AgSOs were established to serve state collective farms during Soviet times, and were centrally managed. Yet, due to the above outlined agricultural reforms, and in particular the creation of individual farms from 2004 onwards, AgSOs have moved from being centrally managed and providing services for a few state farms to providing services to a much larger contingent of individual fermers.

This paper sheds light on the changing roles of agricultural service organisations during the ongoing processes of agricultural transformation in Central Asia. One of the most important service providers for agricultural production located in the irrigated lowlands of Uzbekistan was selected as a case study, specifically a machine-tractor park (MTP) in Khorezm province, Western Uzbekistan. The aim of the study is to assess the factors affecting the changing role and ongoing functioning of the MTP, by focusing on its internal and external organisational relationships, which determine the space within which it is forced to reinvent itself. While finding its new way as a profit-making organisation, the MTP is forced to redefine its role, tasks and relationships with the state, input providers and customers. Consequently, it de jure serves state-planned cotton production by rendering and repairing machinery and producing spare parts on a for-profit basis. Yet, de facto, it continues to serve old roles, which are still strongly embedded in society, by fulfilling a much wider range of tasks. These include various tasks requested by the state administration, such as providing machinery to state fermers, fulfilling the private tasks of bureaucrats and participating in numerous meetings arranged by the hakim² with regard to organising cotton and wheat agricultural campaigns, as well as relicts from Soviet times such as acting as a social security net for its personnel. For the provision of these services mandated by its former role, the MTP is not – or is to a limited degree – paid, which results in the organisation's gradual demise.

The process of redefining its role, responsibilities and the laws of operation is guided by the internal and external relationships of the MTP. In the following, we therefore focus on (a) the MTP's internal relationships; (b) MTP relationships with service recipients (farmers), (c) MTP relationships with the state (including organisations supported by the state) and (d) MTP relationships with input suppliers.

In order to observe the ongoing process of rural transformation and its effects on individual and collective actor interaction we chose the notion of 'patronage' as analytical lens for our case-study. This rests on the finding that the observed coping with and adapting to the ongoing processes of change are

¹ The rural population of Khorezm involved in agriculture consists of fermers ('private' farmers – in this text referred to as 'fermers') who crop state-owned land of usually >80 ha according to a state plan and free commercial crops, dekhans (peasants) who farm their garden plots (approx. 0.25 ha) independent of the state plan (Veldwisch 2008: 65).

² A Hakim (in the Uzbek language) is the head of the district/regional state administration.

highly shaped by inter-personal and inter-organisational relationships, which in themselves are largely influenced by vertical hierarchies and often one-sided dependencies. The structure of the paper is as follows. In section 2 we briefly point to existing theory on organisational relationships and patron-client networks, before introducing the reader to the selected case of a machine-tractor park in Khorezm, Uzbekistan, in section 3. In the subsequent four sections (4 to 7) we discuss each relational type separately, and the paper ends with a concluding discussion in section 8.

2 Asymmetry and Patronage

In the following, patron-client relationship and clientelism theories are mobilised to analyse the peculiarities of MTP relationships with state actors in the frame of the state-ordered crop production system in Uzbekistan. In this paper we use a wide understanding of the notion of 'patronage' with the aim to capture the diversity of relationships shaped by vertical hierarchies and strong, often more one-sided, dependencies, observed in the study region. Patron-client relationships are generally defined as an exchange relationship between two types of roles. In the words of Scott (1972), a patron-client relationship can be defined as:

"a special case of dyadic (two persons) ties involving a largely instrumental friendship in which an individual or higher socioeconomic status (patron) uses his own influence and resources to provide protection or benefits, or both, for a person of lower status (client) who, for his part, reciprocates by offering general support and assistance, including personal services, to the patron".

Powell (1970) establishes three factors that lie at the core of patron-client relationships and differentiates them from other power relationships. First, the patron-client tie develops between two parties unequal in status, wealth and influence. Second, the formation and maintenance of the relationship depends on reciprocity in the exchange of goods and services. Third, the development and maintenance of a patron-client relationship rests heavily on face-to-face contact between the two parties. Although the balance of benefits may heavily favour the patron, some reciprocity is involved, and it distinguishes patron-client dyads from relationships of pure coercion or formal authority that also may link individuals of different status (Powell 1970).

Clientelist bonds involve the exchange of instrumental, economic and political resources interwoven with expectations and promises of loyalty and support, in a type of 'package-deal', meaning that none of these resources is exchanged separately at their market value, but rather in a combined deal which imbues them with broader social and political meaning (Eisenstadt and Roniger 1990). Roniger (2004) suggests that clientelism is a multifaceted phenomenon, at the crossroads of politics and administration, economy and society; it links a community with the larger socio-economic system in which it exists (Powell 1970). Clientelism is identified by Clapham and ed. (1982) as a model of social exchange and a specific strategy of political mobilisation and control, whilst others consider it a type of elite-mass linkage through which the state and the party exercise control at the local level, and through which individuals participate in the political system (Oi 1985). An ordinary citizen, willingly or not, plays the game of private connections and unwritten rules (Mendras 2002). Furthermore, Scott (1970) denotes that clientelist politics seem to be a transitional phenomenon or are appropriate and successful only under certain conditions and for a limited period of time. They particularly emerge with two underlying processes, namely state centralisation and market expansion.

The analysis of clientelist politics in agrarian transformation processes, as currently undertaken by Uzbekistan, therefore gains importance. As will be shown, patron-client relationships are a core characteristic of the governance structures in place in the Khorezm MTP, and are introduced in the following section.

3 The Machine-Tractor Park – A Case Study

Machine-tractor parks in Uzbekistan, which previously belonged to collectivised farms, were reorganised into joint stock companies in 1997 (Resolution #152). Additionally, 'alternative' MTPs (AMTPs) were founded in 2004 on the basis of the earlier tractor parks that existed in every kolkhoz and sovkhoz. MTPs and AMTPs are regulated in accordance with the state law 'On Joint-stock Companies'. As machine-tractor parks are the main machinery service providers to fermers in Uzbekistan, the aim of these reforms when they first introduced was clearly to strengthen material and technical bases by increasing their role in productive and technical service provision to agriculture. The supply of machinery and spare parts, previously received from the Regional MTP Union, stopped between 1991 and 1994. The few spare parts that were still received had to be paid for and thus were no longer supplied free of charge. The resulting poor financial situation of the MTPs has led to a steady decrease in their numbers in the Khorezm province in the past years, counting 13 MTPs and 196 AMTPs on July 1, 2010 (Regional Statistics Office 2010).

The Urgench district MTP, established in 1932, is a joint-stock company, with the state's share being less than 35%. The main functions of the MTP are (a) rendering mechanical services, (b) repairing agricultural machinery, and (c) the production and supply of spare parts. The MTP's clients are the fermers of the Urgench district, budget organisations, agricultural enterprises, dekhan husbandries, district AMTPs and other organisations. The MTP, a powerful organisation in the Soviet period, became powerless under transition, due to the high level of debt of the main clients, namely fermers and AMTPs, as well as the high debts to the tax inspection and input supply organisations. In contrast to Soviet times, when the MTP's accountant had to take care of finances and debts were written off (i.e. dedicated to the 60th anniversary of the October revolution), today the MTP has to make a profit on its own and take independent decisions. The biggest group of MTP clients – and at the same time the major troublemakers - is state-contracted fermers. Either because they do not receive subsidised credits on time or because of their negligent attitude to state-planned crop production, fermers hardly ever pay for services provided by the MTP. Moreover, in many cases the MTP is pushed by the state to render services to these fermers without pay, which results in significant debts, estimated in September 2009 as 253 million Uzbek Soms, of which 110m was frozen³ and 143m to be paid⁴. On April 24, 2010, the additionally compiled debt amounted to 19.5m Soms⁵. Thus, MTPs and AMTPs cannot stand the financial pressure and often run into bankruptcy unless paid by the fermers under the state plan.

Rapidly growing competition in providing machinery services in the Urgench district adds to these financial problems. Apart from MTPs and AMTPs, machinery is available from a number of fermers and a fertiliser company. Competition is growing mainly because fermers now have more money than in the past and clients are not always satisfied with the machinery from the MTP in terms of price and quality, particularly as they can often receive worn out machinery.

Apart from the above-mentioned problems that the MTP faces, its repair workshop is outdated in that the available tools and machinery (welding apparatus, a milling machine and a stand for the fuel) have been in the workshop since 1968, when the foundations of the building were constructed. The production processes in the repair workshop are slow because of difficulties in obtaining the required inputs such as gas and metal. MTP managers and workers buy old or worn out water and gas pipes from fermers. Gas, which is centrally provided by the state, has been cut because of the MTP's debt, so workers buy it from neighbouring organisations and bring them in the combine-harvester tyres. The prices of spare parts vary on a daily basis, which again affects the price of services provided by the repair workshop.

³ This sum is frozen by state tax inspection, meaning that it can be paid later and without additional fines or interest payments.

⁴ According to the official exchange rate on September 15, 2009, 253m. Soms was equal to 116 138 Euro, 110,200,000 to 50,587 Euro, and 143m. Soms to 65,643 Euro. Source: Central Bank of Uzbekistan (2010) from www.cbu.uz.

⁵ According to the official exchange rate on April 20, 2010, 19,469,000 Soms equalled 9,250 Euro. Source: Ibid.

The transition process and financial problems of the MTP push the employees to be innovative. For instance, they have designed and produced different nozzles for foreign machinery, and then adjusted accordingly their ploughs, cardans, clutches, etc. Such modifications solve the problem of getting expensive spare parts for foreign machinery, and with these nozzles the machinery can fulfill extra operations, which in turn results in extra profit possibilities for the MTP – as indicated by the manager of the repair workshop with the words: 'This is a way out of the deadlock' (interview, October 2, 2009).

Despite the current problems, the MTP is looking towards the future. The MTP director intends to strengthen two main business processes and to diversify service provision, by: paying off held back wages to the workers, debts on taxes and a bank loan, by selling an MTP administrative building, subletting part of the MTP's land and selling old machinery. This demonstrates how the MTP is mobilising its long-term capital to cope on a short-term basis with the impacts of the ongoing process of agrarian transformation and change.

4 Internal Governance Practices and Relationships

Despite all the difficulties caused by the transition process, the MTP collective patiently faces these challenges and is working towards a better future. One of the strengths of the organisation is the strong feeling of belonging of its workers, the majority of whom have been employed for more than 20 years; children step into the footsteps of their parents, so the MTP's management and work experience are passed on from generation to generation.

The former Soviet training of the MTP staff has had a direct impact upon the relatively good condition of the organisation, resulting in the timely fulfilment of the state-plan, reaching production goals, caring about people and a high level of discipline. Thus, the dedication of managers and workers to what they are doing, along with the solidarity of a collective and discipline instilled within the workplace, have contributed to the MTP's high level of respect received from the clients and organisations with whom it works. Nevertheless, the continuing transition process has had a negative impact on the organisation and its workers when a number of specialists left and the remaining staff had to combine their own and others' functions to keep the organisation alive. Given the financial deadlock, workers are regularly asked to take unpaid 'vacations' in the winter period due to the lack of work; many employees have not received wages for four up to nine months. In order to deal with these difficulties, the director allows the workers to take on extra jobs (making 2000 Soms per order⁶), in order to gain additional income.⁷ The manager of the repair workshop legitimises, stating, "One cannot be strict with workers; otherwise they will take a run" (personal communication, August 2009).Despite these attempts to 'outsource' the salaries of his staff, the MTP director had to release 10 staff members in 2009.

Apart from the financial and institutional problems, one of the main challenges of the present leaders of the MTP is a lack of experience in, and knowledge about, how to govern an organisation in a market economy. Management nowadays differs a lot from the Soviet times, during which orders would be issued in a top-down manner, i.e. from the Republican MTP, to the Regional MTP Union, to the District MTP. These orders were not discussed but simply fulfilled. Today, however, the MTP has to compile its own plan, taking into consideration its capabilities and indicators from the previous year (plan-actual comparison), and is responsible for making profit independently. Nevertheless, the MTP director is doing well, and is ahead of other AgSO managers and directors, which could be linked to the fact that he went through Soviet times, when people were encouraged to do things well; those who fulfilled or overfulfilled the plan were granted with the certificates of appreciation, one's picture was put on the wall, one's name would be used as an example to others, a trip to a resort or a financial remuneration was granted, etc). And to receive less 'reprimands' it was worth doing things well and fast. Thus, the director

 ⁶ According to the official exchange rate on September 15, 2009, 2,000 Soms equalled 0.92 Euro. Source: Ibid.
 ⁷ In 2009, the average income of a worker amounted to 120,000 (40 Euros) per month, whilst a manager earned

approx. 240,000 (90 Euros) per month.

of the MTP after having fulfilled the state-ordered tasks at the first place, he has less stress with the state authorities and can take care about the MTP business, for instance, by renting his machinery to other clients (fermers growing non-state-ordered crops, fermers from other districts and dekhans). Thus, through the period of agrarian change he has learnt to make money by using his intelligence, a broad network of contacts and access to information, all of which are helpful for dealing with things in the MTP. Each time he wants a favour, a client relies on an established, long-term understanding of exchange with the manager. Favours do not need to be repaid immediately, but instead merge into a system of 'long-range credits and obligations' (Eisenstadt and Roniger 1990). The degree to which the director aims to keep good relationships with state authorities, which influence the everyday work activities of the MTP, is illustrated in the following caption out of the field diary:

The acting director of the MTP made a phone call. He called the person on the line – the boss. 'I need machinery for sowing 20 ha of wheat in 2-3 days maximum. You will demand it anyway to fulfill the wheat plan. May I start sowing?' He was listening for a while and said, 'Ok' at the end of the conversation. This is the kind of friendly talk involved in asking for permission to start ploughing before the state gives instructions to do so (personal observation, August 2009).

Furthermore, apart from being responsible for all business processes in the entire organisation, the director is the only person who can make decisions in the MTP. This is in contrast to the past, when the managers of different departments carried responsibility for their work. Managing the MTP, and therewith steering it through the upheavals of the ongoing process of transformation, requires the MTP director to establish strong bonds with diverse state bodies and the ability to find ways out of the financial deadlock. While good contacts with state representatives are important, the director nevertheless tries to avoid rendering machinery for free.

The director of the MTP has worked in agriculture for approximately 40 years. Therefore, he is a knowledge carrier of fermers and farmlands due to their former power to distribute machinery, run the repair station and supply spare parts to the collective farms. Even though the kolkhoz system of supply is finished, the hakimyat⁸ continues to use the MTPs' knowledge and localised expertise to serve the needs of the current agricultural system.

The process of finding ways out of the financial deadlock in itself becomes a process of continuous negotiation. Patron-client relationships are sensitive to local sentiments and may solve existential problems (Roniger 2004). The director tries to find contacts within the tax inspectorate and uses his best communicative qualities to convince the state officer not to withdraw money from the MTP's account. Yet, as outlined in this caption from the field diary, these attempts fall on deaf ears:

The MTP director called Erkin (a representative from the tax inspectorate) and asked [begged] him to take away the collection of payment [all money that is paid into the MTP's account will be transferred to the tax inspectorate to cover the debt]. So the director asked for the possibility to take 10 million Soms only and leave 5 million for the MTP, as they also have to pay for gas, which otherwise will be turned off – further impeding their ability to make a profit. He explains to Erkin that the workshop cannot work without gas, and assures that there will be money this month, so that the MTP will be able to pay out the remaining sum at the end of the month (personal observation, August-September 2009).

Oi (1985) has shown that in developing countries, where formal channels for meaningful participation and interest articulation are weak, individuals regularly pursue their interests through the use of informal networks built upon personal ties. The same phenomenon can be found in Uzbekistan. Many constraints are placed on the MTP by the state, so the director has to find ways to overcome them. As such, he tries to establish friendly relationships with the 'bosses', as the MTP director usually refers to district or regional hakims or highly-ranked state representatives. While talking to these bosses, he tries to show the advantages for both the boss and his organisation and him personally in the end. Thus, in order to run the MTP and maintain its capacities during the period of agrarian change, the MTP director

⁸ Hakimyat (in the Uzbek language) is the district/regional state administration

appeals to his solid Soviet managerial knowledge, his intelligence, communication skills and a broad network of contacts and has access to information and the ability to constantly improvise, applying a 'learning by doing' method.

5 The MTP and its Service Recipients

Since the fermer requires machinery either for state-ordered crops or for commercial crops, the duality of these two purposes translates into the establishment of different types of relationships between the MTP and fermers. Growing state-ordered crops is associated with the Soviet, state-planned production system, and hence market mechanisms are pushed out by the long-in-use clientelist Soviet principles and informal arrangements preferred by state bodies. One exception to the contract between the MTP and a fermer happens due to an unwritten rule, which stipulates that the MTP has to provide services to the state crop-producing fermers as a priority, without them having to wait in a queue or paying for it. Next, variations in terms of who gets the tractor first appear due to the fact that the majority of the fermers occupy 'privileged' positions. For instance, apart from farming, fermers or their relatives usually sit on the boards of state organisations (e.g. schools, rural councils, public prosecutors' offices), other agricultural service organisations and have close and well-established contacts with local government or used to work in leading positions in the kolkhozes. Thus, they are the first to receive services from the MTP. Furthermore, fermers whose farmland is located along a main road are similarly in the position to receive MTP services without queuing or paying, as their land will be the first to be observed when state checks are carried out. Consequently, this causes many of the financial problems outlined above for the MTP. The order with regard to who is served first was also reaffirmed by a fermer in the Gurlen district:

"First, the MTP has to provide services to the fermers growing state crops. Before them, only the heads of other state organisations can get services (e.g. gas provision, hakim, director of the school, director of the water management organisation, bank, state inspection). If the head of the MTP refuses to follow the above mentioned order, there is a high chance that he will meet obstacles while receiving services provided by those institutions" (Fermers' survey, Gurlen district, June-July 2009).

In order to avoid running into bankruptcy due to the little pay received for delivered services, the MTP director tries different incentives, encouraging fermers to pay for the service. As such, the MTP director has established the following mechanism. Before going to the field, the tractor driver double-checks with the director if this fermer has any outstanding debt. In such a way, the MTP attempts to avoid providing services without payment, or at least remind clients about payment. Additionally, barter and informal arrangements are accepted due to the poor paying capacity on both sides. Fermers can pay in kind (e.g. grains, livestock or externally purchased spare parts for MTP machinery) and consequently receive machinery service, or are moved along in the queue. These in-kind payments are then passed on to the staff, but do not contribute to the reduction of monetary debts. MTPs and AMTPs are carriers of knowledge about fermers and farmlands, due to continuously being mobilised by hakimyat to serve the needs of the current agricultural system:

"Approximately 80 delegates will come. Eight people will selectively visit farm fields of the Urgench district. The heads of the AMTP will accompany them, as they know more about the fermers and the status of the land, whereas the hakim has more superficial knowledge" (personal communication, August 2009).

In this case, the director fails to find any serious reason not to obey, thus he fulfills the state's request to supervise the fermers' fields. Nevertheless, as well as controlling the fields and frightening the fermers, he also provides them with helpful advice.

Popkin (1979) has argued that markets provide increased opportunities for peasants to develop exchange relationships with elites other than their landlords, and can thus strengthen their positions. In contrast to state crop production, a totally different pattern of relationships emerges between the MTP and non-

state crop-producing fermers. Financial relationships or the exchange of goods and services (due to the lack of cash) also come into play. Peasants, after meeting their quotas, can sell their surplus on the free market (Oi 1985), which serves as the most significant motivation for the fermers. The MTP's position changes here dramatically as well, as the MTP workers are ready to work during the night in order to provide machinery to fermers growing commercial crops such as rice. Fermers always find money to pay for any machinery service or input required for the production of rice, in contrast to state-ordered crops such as cotton or wheat. This system earns a cash income for the MTP, and thus the director is strongly encouraged to provide these services. Therefore, rice, as a commercial crop, not only earns an income for the fermers and the agricultural service organisations, but also contributes to covering the production costs of fermers growing state-ordered crops and brings cash into the MTP.

6 The MTP and the State

The Urgench district MTP, established in the 1930s to serve the agricultural needs of the Soviet collective farms in the region, was, just as all agricultural service organisations, 100% state supplied. Thus, AgSOs were part of the one-state agricultural mechanism, functioning as one whole and largely administered and governed from Moscow. Despite 20 years of Uzbekistan independence, and the MTP's transformation into a legally independent entity, it continues to serve state orders, distracting the MTP from building an economically independent, and according to market mechanisms, running organisation. Being strongly embedded in the system of relationships, which are following on still from Soviet times, and due to the current state-planned crop production system, the MTP has established a multitude of relationships with the state. These links are between the MTP and hakimyat (state administration body), the MTP regional Union (a superior organisation of MTP), state technical supervision, tax inspection and the police.

These diverse relationships are guided by differing rationales, i.e. help, control, supervision, scolding, abuse and friendship. In most transactions, the state (as the patron) gets its will fulfilled, whereas the MTP gets distracted, time- and money-wise, by having to interact with many state bodies. However, the MTP, as a client, gradually learns how to resist the state and turn this unequal cooperation into an advantage in itself. By looking at the nature of these relationships, we can observe how the MTP tries its best to redefine its position in a period of change, in order to secure its existence.

The patron-client concept helps to illustrate the political behaviour of low-status actors, particularly peasants, as they are incorporated, recruited, mobilised or inducted into the national political process (Powell 1970). In this case, it is the MTP. In the following we present and analyse existing links between the MTP and the state, in order to show how the MTP redefines itself and its functioning during the process of transition.

From all (non-desired but required) interactions between the state and the MTP, involvement of the MTP and other AgSOs in the process of controlling cotton and wheat production seems to be the most intensive. Each year, the MTP director participates in approximately 200 meetings related to the preparation and actual harvesting of cotton and wheat. During the wheat and cotton harvests, despite the fact that the MTP has just one harvester, the MTP director is mobilised by the hakimyat to assist in controlling the harvesting of the fields. During the time of the harvest, he has to deliver a table of how much cotton has been collected and delivered to the cotton factory at the end of each day. Apart from participating in the meetings, which in some instances can be held at 6.00 a.m. and 11.00 p.m., he constantly has to be reachable by phone. Thus, the work process of the MTP is negatively affected, as the director is busy with state assignments.

It is not possible for the MTP to refuse to fulfil state orders, as it may cause problems for the MTP. The hakim, who is often referred to as the 'landlord of the territory', is responsible for ensuring agricultural production. The director of the MTP outlines the hakim's position:

"The hakim is the landlord of the territory. Everything and everyone is subordinated to him. Medicine, markets, all sectors are subordinated to him. We have to get used to our boss, the

hakim. We need to adjust to all conditions in order to keep on living" (personal communication, September 2009).

Amongst his enforcement methods are unpleasant instruments like shouting, scolding, menacing and intimidation. Those methods are applied towards the MTP, other AgSOs and fermers in order to ensure the unquestioned fulfillment of state tasks. The central power position of the hakim is also illustrated by the following statement by the hakim in a meeting with the MTP directors:

"After September 22nd, if I see any person or machine on your own fields (wheat and rice), I will send a public prosecutor to you and close you down (your organisation)" (personal communication, September 2009).

These methods, as well as being applied to the MTP, other AgSOs and fermers, make sure that all actors involved in the agricultural sector are busy with exclusively state-ordered crop production, and nothing else. This demonstrates path dependency with clientelist forms in post-communist states. However, a merit of control and power methods towards AgSOs and fermers seem to decline. The audience (the directors of AgSOs, fermers) think that overwhelming control measures are over all limits and do not remember such instances during Soviet times, as indicated by the MTP director:

"The punishment during Soviet times was without offensive words, it was so strong and it had an effect. Now, it is different. At the beginning it touched us, now we do not care anymore. It doesn't have such an effect as during the Soviet times" (personal communication, September 2009).

Active participation in meetings is not welcomed; rather, passive listening is demanded, as illustrated by the following: "During the meetings it is all the same. Even if someone knows what to do, one has to sit quietly; it is not appreciated" (the acting director of MTP, daily observations, September 2009).

The director of the MTP, having experienced Soviet times and working now so intensively with the state, has decided to obey the state. Thus, he has redefined his position as well as that of the MTP according to the requirements of the current system. He is the first to carry out orders, and he makes sure that those who are subordinate to him do the same. By trying to satisfy the state, he obtains a good reputation and becomes an example used by the hakim to others. This kind of good relationship is useful to the director and the organisation, especially during these times of change, because in this way he will be less harassed by the state and he might even get some indulgences from the state. For instance, when he has some private or business-related problems, he may appeal to the hakim. Similar behaviour is appreciated in the Chinese socialist context, where one of the most important benefits for a team leader is respect and the support that it entails. The client is characteristically the team leader's most enthusiastic supporter and helper, and can be counted on to praise the patron's leadership and to encourage others to do likewise (Oi 1985).

In addition to the changes of function for traditional patrons transformed into brokers, other local people with 'outside connections' also can assume brokerage functions – bourgeois landowners, schoolteachers, physicians, pharmacists, priests, tax collectors and other local officials (Powell 1970). These people are referred to as 'small intellectuals' of society, whose status and role functions place them in the 'strategic middle' of the social structure (Paulson 1967). In the Uzbek context, organisations such as the tax office, public prosecutor's office, the police and state technical supervision departments play the role of 'state brokers'. Apart from their direct responsibilities, they have to make sure that the AgSOs and fermers follow state orders. Clientelism involves complex (often pyramidal) networks of patron-brokerage selectively reaching different strata, sectors and groups, and selectively pervading political parties, factions and administrations (Roniger 2004). This translates into the constant pestering of the MTP by those organisations. Occupying state positions and partially fulfilling state control function, by so-called 'small intellectuals' has resulted in establishing non-business-related relationships with the MTP, which equates to an abusive use of the MTP's services. Officials exercise their power over AgSOs to pursue private goals. The strong position of the bureaucracy is exemplified by the repair workshop manager as follows:

"If we say 'no' to the hakim or someone from above, they will take revenge on us by means of tax inspection or by public prosecution, easily!" (personal communication, September 2009).

During Soviet times, the state-MTP relationship was a patron-client relationship, i.e. an exchange of services between two sides, both of which had something to offer (either services or a favour), as they were fully supplied by the state. Nowadays, only one side (the patron) benefits from these relationships, because the MTP (the client) offers its services in order to avoid conflict. This kind of relationship, obtaining services for free, occurs throughout the system, from the very local up to the regional level. Thus, state organisations have become a platform for obtaining goods from the society by private groups of people. Due to the poor economic conditions of the organisation and the excessive misusage of the MTP's service by state officials, the MTP is not enthusiastic about maintaining its machines in good shape or purchasing new machinery, which negatively impacts on the quality of provided services to other clients and results in poor MTP performance. Therefore, the MTP director takes preventive measures, in that he is willing to stop providing services for free to state officials and instead move into 'money'-based business versus kinship- and network-based transactions. For instance, he prefers to sell old machinery rather than letting it serve the state bureaucrats for free. Consequently, the informal relationships do not support the formal ones, even though they are overwhelmingly present. The MTP director states:

"Why don't you buy a machine for defoliation and render this to fermers?" – "It is not profitable. When people in the state organisations find out that MTP has this kind of technique, they will start immediately asking it for them, for their relatives, for other officials and they won't pay for it!" (personal communication, September 2009).

The MTP is strongly embedded in the previous system's rules. During Soviet times, when everything belonged to the state and everyone served the state, the MTP director was expected to fulfill any request demanded by or in the name of the state. As no modern-day rules have been invented for these problems which stem from the past, old rules are still in use for whoever comes to the MTP in the name of the state administration came to the MTP and asked for a tractor to plough 0.5 ha. The director fulfilled the order. Even though the director always finds a solution to any problem, he tries to avoid additional misuse of his services, as such mistreatment of the MTP's resources by public servants may destroy the organisation. Yet, at the same time, reinventing the MTP remains a difficult task – caught between the structures, institutions and actors of the past and the so far unknown future.

In combination with working relationships, the MTP director has also developed private relationships with actors within the agricultural production system, e.g. state representatives, other AgSOs and fermers. Being a part of the Soviet and pre-Soviet Uzbek culture, actors celebrate birthdays, weddings, etc. together. This kind of relation has proved to be useful for the director of the MTP and other actors involved in agriculture. Apart from having fun and shifting attention from the exhausting work, new acquaintances and friendships are established. These informal and personal channels are one of the tools the MTP director (and many others) uses to solve organisational and private problems during times of agrarian change.

7 The MTP and Agricultural Input Providers

If in the past all inputs were supplied by the state, and the mutual settlement of accounts (if such occurred) was easily solved with the help of the state, now the MTP has to take care of all its bills alone. Moreover, the legal status of some providers has changed, which does not allow state intervention in their business anymore. Just like the MTP, many of the state input-providing organisations are in a poor economic condition and face financial problems due to the transfer from the state supply system to private management of their businesses. For instance, the state electricity company and a repair factory are in a bad economic situation, as the organisations they provide services to owe them money. Due to the status of the MTP and input-providing organisations, the MTP director mobilises his personal agency, kinship and networking to negotiate the extension of arrears terms. For example:

"The representatives of the repair factory, while driving around and checking its debtors in Urgench, arrived at the MTP and talked to the director about paying back the debt. The director asked them to wait for another 30-40 days, when the MTP would have sold old machinery and be able to pay. The MTP director: 'We also have a huge debt to the tax inspection (40m). First we will sell machinery, after this the (administrative) building and then we can pay out the bills" (daily observation, September 2009).

The MTP director appeals to the non-financial relationships to settle the financial problems of the process of reinventing the MTP. For instance, he suggested to a water supply company that the MTP repair its equipment and write-off the outstanding water bill. Both sides are interested in this operation.

Informal arrangements significantly decline with the emergence of market principles, while working with the representatives of Western machinery providers, i.e. New Holland and Claas. When working with them, the MTP director cannot apply kinship and networks. Or while purchasing spare parts on the openair markets or from the merchants from Turkmenistan who drop by to the MTP, the director of with the help of negotiation and bargaining, which is in the blood of Uzbeks, manages to bring the price. Nevertheless, the deal will not work without cash. Simply with communications like in the case with state organisations (electricity, repair factory) it doesn't work. Those institutions accept just financial relationships regardless the client.

When working with banks, the MTP director uses all kinds of negotiations to reach his goals. Most of the banks that provide services to agricultural actors (e.g. AgSOs and fermers) are under state control; however, establishing relationships with bank workers by giving them presents will improve the situation and quicken transactions. Thus, relationships with organisations or individuals that are not state agents require financial emollients, otherwise they do not cooperate.

In this hopeless situation, when there is no cash in the organisation, the director will attempt to instigate informal arrangements or use his negotiation skills or some of his former links in order to find a solution for his organisation and workers. For example, when there was no gas for more than one month in the repair workshop (because the MTP could not pay the state gas company), the director agreed with a neighbouring organisation to obtain gas from them for a symbolic price, as outlined by the manager of the repair workshop:

"One worker went to get some gas from the neighbouring organisation. He brought it in huge tires" (personal communication, September 2009).

8 Conclusions

The Urgench district MTP in this paper was presented as a case study of agricultural service organisations in Uzbekistan during the ongoing process of agrarian transformation. The way in which the MTP redefines its position during the agrarian change period was outlined by discussing its relationships with the state, its clients and input providers, as well as its own staff. The ongoing process of agrarian transformation has brought many changes to the life of the organisation and its workers. The broader structural working conditions of the MTP are post-socialism – the present political regime of Uzbekistan with strong state control being exercised over agriculture and the MTP in particular. The more specific conditions that currently frame the work of the MTP are its difficult financial situation, the cessation of state supply, the stalled working processes, no permanent occupation for the workers and the constant pestering of the MTP director by state-related-tasks and bureaucrats.

The agency of people, and the MTP's direction especially, have proved to be of crucial importance for the reinvention of the organisation during this period of change. The director is put in a very difficult position in current times, as he has to please the state and state bureaucrats, make a profit on personal and organisational levels and provide salaries for his workers. This transpire to be a huge challenge. Despite the fact that the MTP is an agricultural service provider, the main client in the Uzbek case remains the state. First and foremost, the MTP fulfills state tasks and orders, after the orders of bureaucrats and and the fermers under the state plan. When it comes to non-politically charged service provision, namely to other clients growing non-state-controlled crops, the MTP has neither the enthusiasm nor the quality of service (due to the miserable financial condition) to offer them. In addition to this, and due to emerging competition in the machinery sector, if the MTP continues in this way it is at risk of running into bankruptcy. The MTP director utilises many different strategies to solve the organisation's problems and to satisfy the needs of the clients and the state. He takes preventive measures in order to minimise the provision of gratis services to state bureaucrats, yet simultaneously manages to maintain good relationships with state organisations. Therefore, the way in which he manages to find a way out of the current situation, using his experience gained during the Soviet times to tackle the present problems and to plan for future activities, his connections and kinships and his personal ability to adjust rapidly to new conditions and to improvise, his devotedness to the organisation is the driving factor behind the reinvention of the organisation during and due to the process of agrarian change.

Under these parameters, clientelism proves to be highly adaptive to changing market logic, individualistic strategies and capitalistic considerations, while at the same time it can be tuned to the agenda of politicians, brokers and citizens willing to make claims on grounds other than their only partially realised citizenship. This is why, when projected as a strategic political tool by brokers and political agents, clientelism has remained important during periods of political and economic revamping in societies such as Russia, Poland, Turkey, Brazil and Argentina (Roniger 2004). Clientelism in Uzbekistan has shown to be a defining element of the system of relationships between the state and the MTP during the current period of agrarian change, at the same time having adapted to the new system and thus offered new challenges to clients. Consequently, studying these clientelist structures in Uzbekistan further promises to offer in-depth insights into the processes of decision making from local to national levels.

While managing the organisation, the MTP director appeals to a multitude of established relationships with state bodies, which indicates the importance of these relationships and the MTP's reliance upon them to counterbalance shortages during transition. These relationships can be divided into two types, namely formal and informal. Formal relationships exist on paper and are used by the state while promoting state interests. Informal arrangements, however, prove to be much more functional during the transition process, as they come to the fore when formal rules do not provide grounds for transactions. Former and current state organisations rely heavily on these informal rules due to the lack of finances. The MTP and such organisations appeal to the barter system, the exchange of services and favours and in-kind payments. Longstanding, good relationships between the relevant actors assist in such transactions.

The above-mentioned spectrum of informal relationships with other social actors signifies the reason for the existence of seemingly unprofitable organisations like the MTP, which, as a former state organisation, provides a platform for many people connected with agriculture. The spirit of transition, and not particularly strictly followed formal rules, gives freedom to those actors to use their state positions to obtain private goals.

Klyamkin (2002) claims that the significance of informal arrangements declines with the emergence of market principles. The only fragile motivation in combating illegality and corruption might come from businessmen, especially in small businesses. Thus, the development of private business will potentially contribute to the weakening of existing informal arrangements, which is highlighted when viewing the relationships between the MTP and non-state organisations (purely business, branches of international organisations), which work on a financial basis and where informal relationships are weaker or not in use at all.

However, despite the strong agency of actors, the present structure in Uzbekistan is very powerful and does not give much space for the actors to manoeuvre freely. Notwithstanding the MTP's legally independent status, it is strongly interwoven into the political structure of the state and depends on this body due to state-ordered crop production. Apart from the financial and institutional problems, one of the main challenges of the present leaders and staff of the MTP is a lack of experience and knowledge about how to run the organisation in a market economy.

Consequently, questions for further research include: how long can the director, who is the single key player in the organisation, stand the multiple forces bearing down on him and the MTP during this time of transition? What can be done to reinforce the process of the organisation redefining itself? What can influence the strong structural factors currently in place, in order to let the MTP and other agricultural actors move on?

References

Central Bank of Uzbekistan. (2010). From www.cbu.uz.

- Clapham, C. and ed. (1982). "Private Patronage and Public Power: Political Clientelism in the Modern State." <u>New York: St. Martin's Press</u>.
- Djanibekov, N., J. P. A. Lamers, et al. (forthcoming). Land Consolidation for Increasing Cotton Production but Sufficient for Triggering Rural Development in Uzbekistan? <u>Challenges of Education and</u> <u>Innovation for Agricultural Development</u>. K. Labar, M. Petrick and G. Buchenrieder. Halle (Saale), IAMO. ##: ##.

Eisenstadt and Roniger (1990). Patrons, Clients and Friends, Cambridge University Press.

- Klyamkin, I. (2002). Burokratiya i Bizness.
- Lehrman, Z. (2008). "Agricultural Development in Uzbekistan: The Effect of Ongoing Reforms." <u>The</u> <u>Hebrew University of Jerusalem</u> #7.08: pp. 1-29.
- Mendras, M. (2002). "The State is Weak, Administrations are Strong. Assessing the Functionality of Bureaucracies in Russia." (Paper was presented at the Honesty and Trust Project workshop Collegium, Budapest, 13-14 December 2002: pp. 1-25.
- Niyazmetov, D. (2008). "Efficiency of Market Infrastructure Development for Farmers of the Khorezm region." <u>Urgench State University, Uzbekistan</u> Master thesis: pp. 1-125.
- Oi, J. C. (1985). "Communism and Clientelism: Rural Politics in China." <u>World Politics</u> Vol. 37(No. 2): pp. 238-266.
- Paulson, B. (1967). "The Role of the Small Intellectual as an Agent of Political Change: Brazil, Italy, and Wisconsin." <u>Paper delivered at the American Political Science annual meeting in Chicago, September,</u> <u>1967</u>.
- Powell, J. D. (1970). "Peasant Society and Clientelist Politics." <u>The American Political Science Review</u> Vol. 64, No 2 (June, 1970): pp. 411-425.
- Regional Statistics Office (2010). Information on Machine-Tractor Parks in the Khorezm region. Statistics Department. Urgench.
- Resolution #152 (1997). On Measures of Strengthening the Material and Technical Basis and Increasing Efficiency of Machine-Tractor Parks. Cabinet of Ministers of Uzbekistan. Tashkent.
- Roniger, L. (2004). "Political Clientelism, Democracy and Market Economy." <u>Comparative Politics</u> Vol. 36, No 3 (April 2004): pp. 353-375.
- Scott, J. C. (1972). "Patron-Client Politics and Political Change in Southeast Asia." <u>The American Political</u> <u>Science Review</u> Vol. 66(No 1 (March, 1972)): pp. 91-113.
- Trevisani, T. (2008). "Land and Power in Khorezm. Farmers, Communities and the State in Uzbekistan's Decollectivization Process." <u>Freie Universitaet zu Berlin</u>.
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