Title: Institutions and nature-related transactions in Russian farming: a case study from West Siberia

Summary

Large-scale grain production is considered inefficient because its nature-related specificities lead to the limited ability of gathering people in one place and effectively monitoring their effort, while performance can be attributed both to human effort and nature-related conditions. Accordingly in western countries family farms are key grain producers. In Russia, however, large-scale farms echoing the Soviet production style are still the main grain producers. While many scholars have offered reasons for why family farming has not developed in post-Soviet Russia, the question remains as to why some family farms still exist and how similar they are to their western counterparts. Employing an institutional economics approach and qualitative research methods, the paper empirically examines the agro-food system of grain production in the Tyumen region of Russia to understand how family farming and large-scale corporate farming differ in terms of labour institutions and the organisation of nature-related transactions.

Extended abstract

Large-scale grain production is considered inefficient because its nature-related specificities lead to the limited ability of gathering people in one place and effectively monitoring their effort, while performance can be attributed both to human effort and nature-related conditions. Accordingly in western countries family farms are key grain producers. In Russia, however, large-scale farms echoing the Soviet production style are still the main grain producers. While many scholars have offered reasons why family farming has not developed in post-Soviet Russia, the question remains as to why some family farms still exist and how similar they are to their western counterparts. Employing an institutional economics approach, the paper empirically examines the agro-food system of grain production in the Tyumen region of Russia to understand how family farming and large-scale corporate farming differ in terms of labour institutions and organisation of nature-related transactions.

In terms of natural resource management, large-scale agriculture of the Soviet type is considered inefficient, among other reasons because it precludes a crucial requirement for successful agricultural activity, namely catering for the specificities of the biophysical environment based on the farmer's own experience and knowledge of the local conditions (see

e.g. Priebe 1969,). Furthermore, the well-known principal-agent problem arises where employed labour is used for agricultural activities in which performance can be attributed both to effort and to natural forces (Allen and Lueck 1998). In western countries, accordingly, grain farms are predominantly family farms where the institution of family embeds a different type of incentives to provide effort (see e.g. Pollak 1985). In Russia, in contrast, chief grain producers are large farms working thousands of hectares and employing hundreds of people. They also demonstrate, on average, higher grain productivity than family farms.

A number of scholars have offered reasons for why family farming has not taken up in Russia. (e.g. Schulze 2002, Koester 2005, Lerman and Shagaida 2007) However, despite these factors some family farms still exist and their acreage is growing, albeit slightly. So why do they persist, and how similar are they actually with their western counterparts in terms of labour institutions and the organisation of nature-related transactions? Now that over two decades have passed since the beginning of the plan-to-market transition and the largest calamities have settled, it is time to investigate the case empirically. Is family farming in Russia based on the same labour and natural resource management principles as in western countries? How does the management of natural resources differ between large-scale and family farms? How do nature-related properties of transactions play out in the governance structures in both cases? Which types of rules regulate the farms' nature-related transactions, and under which rationale do farmers make their production-related decisions? The proposed paper is centred around these questions and employs a case study of the Tyumen region in West Siberia to study the issue empirically.

While the Tyumen region is mainly known for the largest oil and gas fields in Russia, agriculture plays an important role in its southern part, where around 40% of the population live in rural areas. Forest-steppe zones, especially sensible to the currently ongoing environmental change, are key grain-growing areas in the region. Around 500 commercial crop and livestock farms are registered in the area, with thousands of household plots additionally producing agricultural commodities mainly for own consumption. While agricultural regions in the European part of Russia have been extensively studied by now, agriculture behind the Urals has received way less attention. Meanwhile it plays an important role in regional economies and has distinct environmental characteristics calling for specific institutional arrangements between the actors. Furthermore, West Siberia is expected to see significant effects of climate change in the future (Tchebakova et al. 2009), and for assessing the adaptation potential in the region, it appears crucial to first understand who the key actors are, how they interact with each other, and how institutional factors affect their decision-making.

The case study focuses on the production of grain as the main type of agricultural commodity in the region. Family farms refer to 'peasant farms' and large-scale farms to 'corporate farms', or 'agricultural organisations' as defined in the Russian law (see e.g. Franks and Davydova 2005). An institutional economics approach is employed to study the case. Institutions are viewed here as the 'rules of the game' structuring the actors' interactions, and governance structures cover a range of arrangements between the market and hierarchy (see Williamson 2005). It is crucial to extend the focus beyond the farm level because in the transition, activities adjacent to farming have also undergone major changes and the restructuring leading to new institutional arrangements has played a key role in the developments at the farm level. Thus an agro-food system approach is adopted where the actors under study are individuals and organisations involved in agriculture-related activities like farming, input supply, storage, grading, processing, transport, marketing, credit, leasing, advisory services, etc.

A distinct feature of institutional analysis in the field of agriculture is that it has to account for the specificities pertaining to it as a "nature-related sector" (Hagedorn 2008). Except the three central properties of transactions – asset specificity, frequency, and uncertainty, transactions in agriculture have specific properties "strongly influenced by attributes that are typical of natural systems", such as jointness, complementarity, competition, coherence, limited standardisability, irreversibility, etc. These require a "design of special institutions and governance structures suitable for regularising the interdependence between actors" (ibid.: 358). The proposed paper identifies such nature-related properties in the empirical case and studies the rules and governance structures regulating the actors' regulations both in family and large-scale farms. Methodologically the research relies upon a document analysis and over 60 semi-structured interviews conducted in the autumn of 2013 and 2014.

As the final interviews are currently being conducted, data analysis will only be completed by spring 2015. However, preliminary results point to a number of important insights concerning the nature of family farming in Russia and the functioning of the agro-food system with respect to embedding nature-related characteristics of transactions. They reveal certain differences in the characteristics of family farming in Russia and in western countries and show that a focus on the entire agro-food system and not just the farm level is crucial, revealing how institutional factors affect production-related decisions and how nature-related characteristics play out in the institutional arrangements. For instance, farms having the ability to increase measurability of grain characteristics enter into different institutional arrangements with the downstream industry compared to (typically family) farms for which marketing transactions are characterised by limited observability and standardisability. The paper in particular unpacks

some of the specificities of the post-Soviet context, namely the role of the state in the farmers' production-related decisions and interactions with other actors. A focus on agrarian institutions allows going deeper into the 'rules of the game' and understanding how nature-related properties of transactions affect the actors' decisions and interactions in the agro-food sector. The insights can be helpful for approaching the issue of adaptation to climate change in the region as the paper tries to discern the rules according to which the actors' interactions take place.

References

Allen, D. and Lueck, D. (1998). Nature of the farm. Journal of Law and Economics XLI: 341-386.

Franks, J.R. and Davydova, I. (2005). Reforming the farming sector in Russia: New options for old problems. Outlook on Agriculture 34(2): 97–103.

Hagedorn, K. (2008). Particular requirements for institutional analysis in nature-related areas. European Review of Agricultural Economics 35(3): 357-384.

Koester, U. (2005). A revival of large farms in Eastern Europe? How important are institutions? Proceedings of the 25th International Conference of Agricultural Economists (IAAE), 16-22 August 2003, Durban, South Africa.

Lerman, Z. and Shagaida, N. (2007). Land policies and agricultural markets in Russia. Land Use Policy (24): 14-23.

Pollak, R.A. (1985). A transaction cost approach to families and households. Journal of Economic Literature 23(2): 581-608.

Priebe, H. (1969). The modern family farm and its problems: with particular reference to the federal German Republic. In: Papi, U. and Nunn, C. Economic Problems of Agriculture in Industrial Societies. London: McMillan and Co. Ltd.: 251-264.

Schulze, E. (2002). Warum blieb in der russischen Landwirtschaft die duale Struktur von Großbetrieb und Hauswirtschaften erhalten? Agrarwirtschaft 51(6): 305-317.

Tchebakova, N.M., Parfenova, E., and Soja, A.J. (2009). The effects of climate, permafrost and fire on vegetation change in Siberia in a changing climate. European Environmental Research Letters 4 (2009): 1-9.

Williamson, O.E. (2005). The Economics of Governance. Richard T. Ely Lecture 95(2): 1-18.