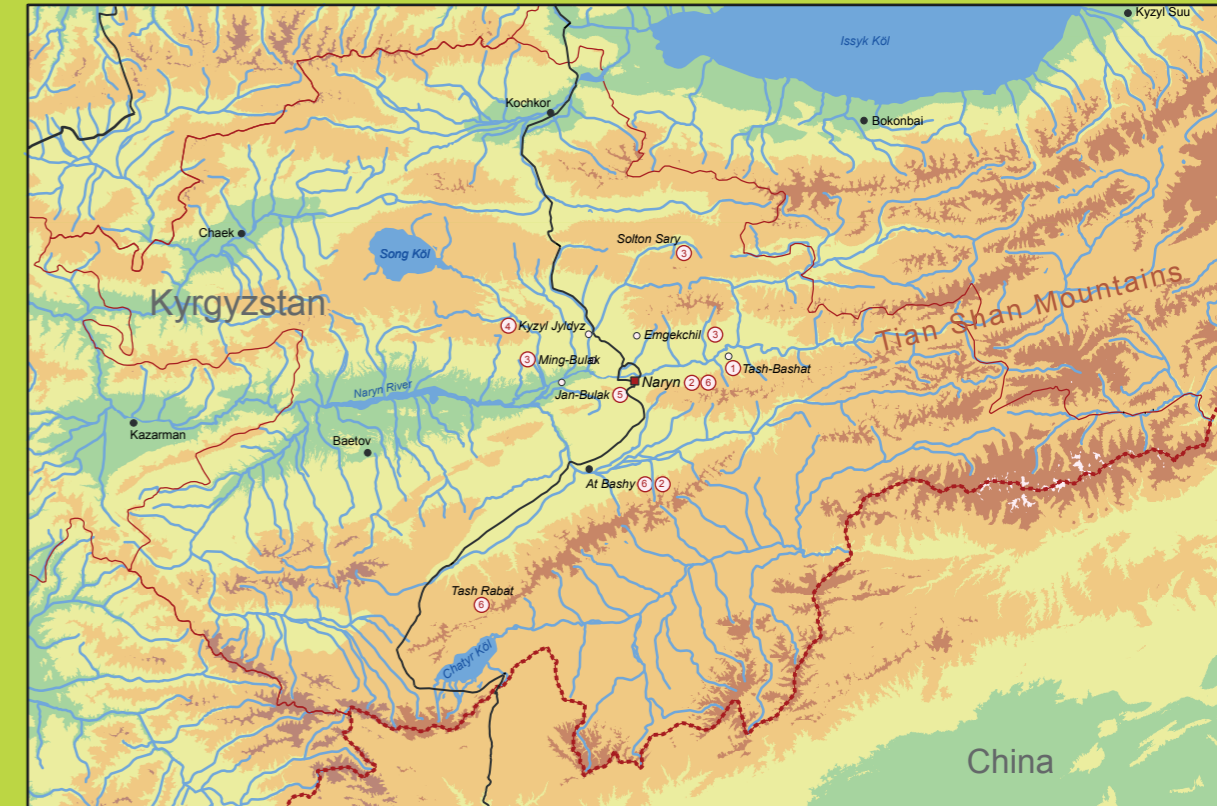


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Potentials and Challenges for Development in Naryn, Kyrgyzstan



Edited by

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Institute of Geographical Sciences
Freie Universität Berlin

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Remarks and Glossary

Currency exchange rate

US\$ 1.00 = Kyrgyz Som 67.47 (June 30, 2016: <https://www.oanda.com/currency/converter/>)

Aiyl Okmotu	Local authority of a local municipality
Kolkhoz	Abbreviation for <i>kollektivnoe khozyaistvo</i> (Russian): Collective farm
Murab	Water manager
Oblast'	Province
Rayon	District
Sovkhoz	Abbreviation for <i>Sovetskoe khozyaistvo</i> (Russian): Soviet farm, State farm

Preface

The training of students in the Department of Geography at the Centre for Development Studies of the Freie Universität Berlin includes the scientific preoccupation with theories of development, with social inequalities at multiple scales reaching from global to local arenas, and with questions of international development policies and practices aimed to ensure basic needs and sustainable development. Such theoretical and conceptual training goes along with the facilitation of methodical skills in empirical investigations. This shall help students to gather own experiences in empirical fieldwork and establish the link between development theories and practice. For this reason, we regularly conduct student projects in different countries of Central and South Asia. These projects also form part of the curriculum of the Master's program in Geographical Development Studies. The experience of everyday life in urban and rural contexts, the perception of regional and global disparities, and the testing of own designed research tools to answer specific research questions provides the students with a high degree of exposure to various professional aspects of possible future employment as development practitioners as well as valuable personal experience. The student project in 2016 was dedicated to the potentials and challenges for rural, urban and regional development in post-socialist Kyrgyzstan with specific consideration of the existing connections and exchange relations between rural and urban areas in Naryn Oblast', the biggest and least populated of Kyrgyzstan's seven provinces (NSC KR 2016).

After gaining independence in 1991, Kyrgyzstan experienced fundamental transformations of the political system, the economy and the sociocultural sphere. These transformations had various immediate impacts on the people's daily life in terms of income generation, the provision with food and consumer goods, the management and use of locally available natural resources, as well as the availability of reliable social services, including health and education. Questions related to national belonging and religious identity represent another fundamental challenge of the post-Soviet era, requiring the search for new answers. Against this background, the student project focused on three thematic clusters including ten subprojects: I) 'Economy: markets, trade, and agriculture'; II) 'Connections and relations: rural-urban nexuses'; and III) 'Culture and society: religion and identity'. The studies were conducted in close cooperation with the Naryn State University named after S. Naamatov located in Naryn Town, the administrative centre of Naryn Oblast'. Ten groups of up to three Kyrgyz and German students addressed specific issues through case study approaches applied in selected rural and urban settings of the province. The scope of the individual subprojects encompassed issues like the car trade and public transport system in Naryn Town, the bazaar economy of the city, trade and value chains of milk and other animal products, the management and utilisation of pastures and irrigation water, challenges related to drinking water supply, small-scale gold mining, endogenous development potentials, and the representation of national identity in the study region. This report includes a selection of the manifold results gained by the Kyrgyz-German student group, and presents six case studies addressing diverse topics (Fig. 1).

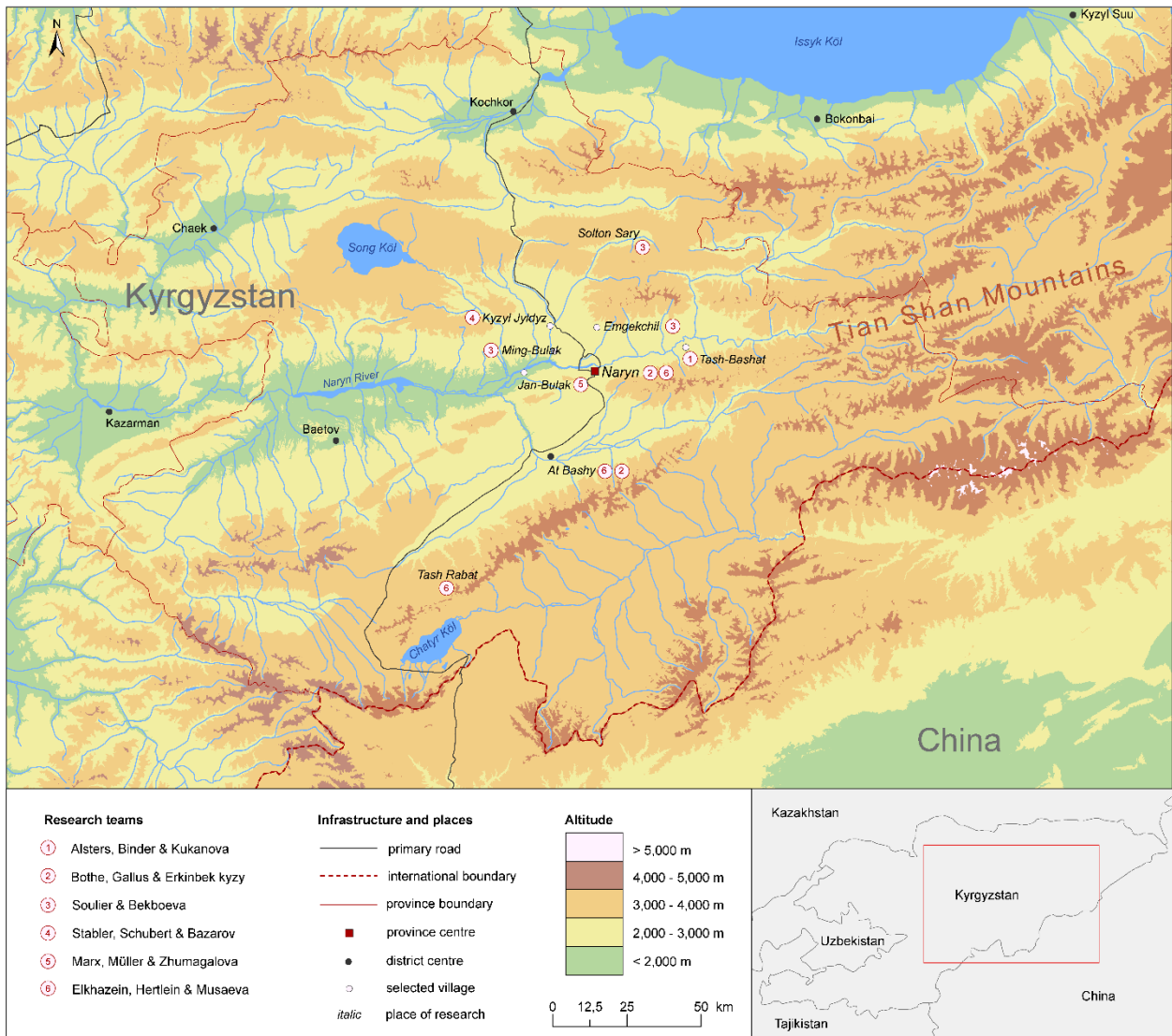


Fig. 1: Naryn Oblast', distribution, and location of the presented case studies
 Source: Dörre, 2017 (draft)

David Alsters, Lisa Binder and Cholponai Kukanova (Team ①) examined, through the analytical lens of the 'endogenous development' approach (Bohle 1988), factors, actors, and potentials for the development of the rural settlement of Tash-Bashat.

Julia Bothe, Katie Gallus, and Zhanara Erkinbek (Team ②) adapted the 'global commodity chain' approach (Gereffi et al. 1994) to examine the commodity and value chains of milk and milk products processed by the dairy factories of Naryn Town and At Bashy to get a better understanding of the regional milk processing industry.

Marlene Soulier, and Nadira Bekboeva (Team ③) looked at the small-scale and artisanal gold mining practiced by the inhabitants of the two villages of Emgekchil and Ming Bulak, and interpreted the observed practices as locally specific livelihood strategies (Chambers & Conway 1992). They also applied the 'global commodity chain' approach (Gereffi et al. 1994) for their analyses, and 'followed the gold' from the excavation of the raw material to the diverse processing steps conducted in the two villages.

Martin Stabler, Franz Schubert, and Aman Bazarov (Team ④) asserted that the problem of inadequate drinking water supply is an urgent problem in Kyrgyzstan, and especially in rural areas. They stated that this challenge, in combination with poor sanitation, represents a serious impediment for rural development by causing high morbidity rates and social costs. The authors present the anecdotal case of Kyzyl-Jyldyz Village, which shows that the externally initiated decentralisation of the drinking water supply in Kyrgyzstan unintentionally contributed to the perpetuation or even deterioration of already difficult living conditions of some marginalized, and economically weak communities.

Alexander Marx, Carolin Müller, and Nurgul Zhumagulova observed the local water management and irrigation practices in the village of Jan-Bulak, which, during Soviet times, represented the centre of a collective farm. Against the background of the scarcity and uneven spatial distribution of irrigation water, as well as the absence of a superior body managing the local water use and distribution in post-socialist times, the authors applied Elinor Ostrom's Social Ecological Systems Framework (2009) to analyze the local management approach and irrigation patterns of Jan-Bulak. The objective of the study is to evaluate the self-organized practices of the local community in terms of sustainability of the outcomes, and efficiency of the taken measures.

Sakina Elkhazain, Lars Hertlein, and Kaliman Musaeva have dealt with questions pursuing the problem of Kyrgyz national identity and its representation in the study region. Inspired by Anderson (1996) and Hall (1994) the authors conceptualize nation and national identity as imagined communities and social constructs, respectively, and applied a mix of different methods to uncover and reconstruct the constructionist character of manifold material and figurative representations of 'Kyrgyznes' of, and within the study region.

The implementation of the whole undertaking would not have been possible without the support of many people and institutions. First, we want to thank our Kyrgyz partners from the Naryn State University named after S. Naamatov, namely Dr. Dinara Bekirova, Head of Department for Economics, and Cholponai Kukanova, lecturer at the same department, for their extremely helpful support in identifying and training the Kyrgyz students during the preparation stage of the project, as well as all the following Kyrgyz team partners: Jamila Kadiralieva, Gulbarchin Asanalieva, Zhanara Erkinbek kyzy, Nurgul Zhumagulova, Nadira Bekboeva, Aman Bazarov, Kuban Akmatov, Emiliya Erkinbekova, and Kaliman Musaeva. Without their language skills, knowledge of local culture, local contacts, and their invaluable organisational support as members of the research teams, fieldwork, and communication with people would have been nearly impossible. The director of the Community Based Tourism (CBT) Organisation Asylbek Rajiev, and the CBT Group Naryn provided great logistical support by organizing the overland trip from Bishkek to Naryn, as well as accommodation in the two cities. Very special thanks to all the interview partners, and hosts for their hospitality and patience. The student project in Naryn 2016 was generously supported by the 'PROMOS-Program for the mobility of undergraduate and postgraduate students' funded by the German Federal Ministry of Education and Research. We are very grateful for this support.

Berlin, May 2018

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1 Factors and Potentials of Local Development. The Case of Tash-Bashat Village

Introduction

After the collapse of the Soviet Union and the subsequent independence of Kyrgyzstan in 1991, the dissolution of collective and state farms resulted in high rural unemployment rates and widespread poverty across rural areas. To introduce a new political, economic and administrative system, Kyrgyzstan underwent a large decentralisation programme shortly after its independence in which the re-establishment of agricultural services was given a key priority to tackle the high rural unemployment rates. For rural areas, the decentralisation policy meant a radical change from formally centralized decision-making towards an empowerment of local and municipal actors (Crewett 2015: 4-5).

Currently, approximately 64.3 % of the Kyrgyz population lives in rural areas in which poverty remains a widespread phenomenon¹ (World Bank 2017). While many peripheral areas are still struggling to establish a decentralized governance system which could eventually be leading to poverty eradication, some have been able to set up a well-functioning system of local governance. The village of Tash-Bashat located in the Naryn Oblast', is characterized by its peripheral location and mountainous geography. Extreme meteorological conditions and poor infrastructure paint a picture of the uneven development potentials in different regions of Kyrgyzstan. This makes a nation-wide development plan difficult and therefore suggests that each region needs to be looked at individually. Based on the case-study of Tash-Bashat, we are seeking to understand which factors and actors contribute to the local development processes in this village, and where further development potentials can be identified. The concept of endogenous development, stressing the importance of decentralized, local decision-making processes, will serve as the conceptual background of the study.

The concept of endogenous development

Centralized decision-making on regional planning policies was the rule in many developing countries up until the 1970s, when modernisation-biased premises considered exogenously driven strategies as the right approach to modernize regions and achieve economic development. However, in the last few decades a considerable shift in concepts of regional policy has taken place, as centrally planned policies were increasingly criticized in the academic debate on development theories. Many representatives advocating for the dependency theory blamed globally increasing spatial inequalities on exogenous factors and called for a disintegration of less-developed regions of the world economy (Bohle 1988: 259; Margarian 2011: 2). At the same time, the traditional notion of development - being largely defined by quantitative, monetary measures - shifted towards a multidimensional approach

¹ In 2013, 37 % of the rural population was living below the national poverty line (Asian Development Bank 2017). The national poverty line amounted to 27,768.50 Som per year/person (AzerNews 2015).

in which social, political, institutional, and ecologic aspects all received growing consideration (Bohle 1988: 259; Nemes 2006: 2). Against this backdrop, the approach of endogenous development emerged in the 1980's (Nemes 2006, 2).

Vázquez-Barquero & Alfonso-Gil define the concept of Endogenous Development as a "process of economic growth and structural change, which employs its local development potential to improve [a] population's standard of living" (Vázquez-Barquero & Alfonso-Gil 2015: 101). In this approach, various interrelated dimensions of development including economic, sociocultural, political and ecological elements are taken into consideration within a specific territory (Nemes 2006, 2; Vázquez-Barquero & Alfonso-Gil 2015: 101). It is essential in this view that development processes are locally-driven as opposed to centrally organized regional development strategies. Development objectives of specific regions are defined by the needs, capacities and perspectives of the local population which needs to actively engage in and take over the role as a decision-making unit (Margarian 2011: 2; Nemes 2006: 3).

All natural, human and cultural resources in a specific development region are potential drivers of change. Thus, not only minerals and economic values, but also numerous "soft factors" such as knowledge, skills, and entrepreneurial abilities of local actors are considered essential factors for the stimulation of local development (Margarian 2011: 11). Furthermore, the creation of proactive, empowering structures of local governance that facilitate commitment and active participation in local development initiatives by creating a strong sense of identification with, and solidarity among the local inhabitants are seen as an essential precondition for the stimulation of local development processes (Nemes 2006: 22). Nevertheless, outside influences are not be completely disregarded since multifaceted connections to other regions can help spreading knowledge, ideas and skills, and thus allow room for innovations within the region. A certain connection to other regions can also increase economic trade opportunities and lead to growing financial resources (Nemes 2006: 22).

The approach of endogenous development is not clearly defined and thus allows space for interpretation (Margarian 2011: 2). However, at least two major goals can be identified. These are, on the one hand, a strong focus on regional units (as opposed to sectoral units) as units of interest, and, on the other, a targeted use of existing potentials, facilitated by regional policy (Bohle 1988: 259).

Bohle identified three overall approaches to classify existing potentials, which, depending on differing theoretical development references, emphasize different potential resources as key drivers of regional development processes.

A production-orientated approach focuses on the economic factors of endogenous development. It concentrates on an improvement of regional production possibilities by addressing economic, physical or infrastructural bottlenecks within a region. It therefore targets unused potential resources, such as agricultural, industrial or mining resources of a region.

Political and social factors and potentials for endogenous development processes are being emphasized by a participatory approach. This approach predominantly builds on

strengthening regional self-realisation and endogenously-driven management processes by establishing favourable social and technological conditions facilitating the emergence of inclusive organisation structures. It regards local leaders and decision-makers as important contributors to endogenously-driven development processes, and includes technological and innovative potentials.

The auto-centred approach focuses on strengthening self-sufficient societies, regional identities and indigenous resource management strategies to foster regional opportunities of self-realisation. Therefore, cultural, social, territorial, and ecological values including equal distribution patterns, regional traditions and identification, as well as the recognition of ecological systems within the region of interest need consideration alongside economic or institutional aspects. Existing cultural institutions, social organisation structures, and ecologically responsible expertise on resource management are considered the major potential resources of endogenous development (Bohle 1988: 260-261).

In the following analysis of our research, we will investigate whether the development processes of Tash-Bashat can be explained in the framework of endogenous development. Endogenous development teaches us to take a holistic look at the ecological, economical, and sociocultural conditions of a region (Rauch 2009: 70). Multidimensional observation has been part and parcel of development studies, for example in the assessment of livelihood-systems (De Haan & Zoomers 2003: 350). This multidimensional perspective has gained importance since the notion of fighting poverty by focusing on material aspects alone has failed (Rauch 2009: 121).

Therefore, we will assess the findings on factors, actors, and potentials of local development within the confines of four dimensions of development: economic, ecological, political and institutional, and societal (Fig. 1). It will assist us in assigning and evaluating the different aspects that are crucial to local development processes in Tash-Bashat. We will continue with a brief outline of our methodology before analyzing and discussing the different aspects of socio-economic life of Tash-Bashat. Interpreted in the framework of endogenous development.

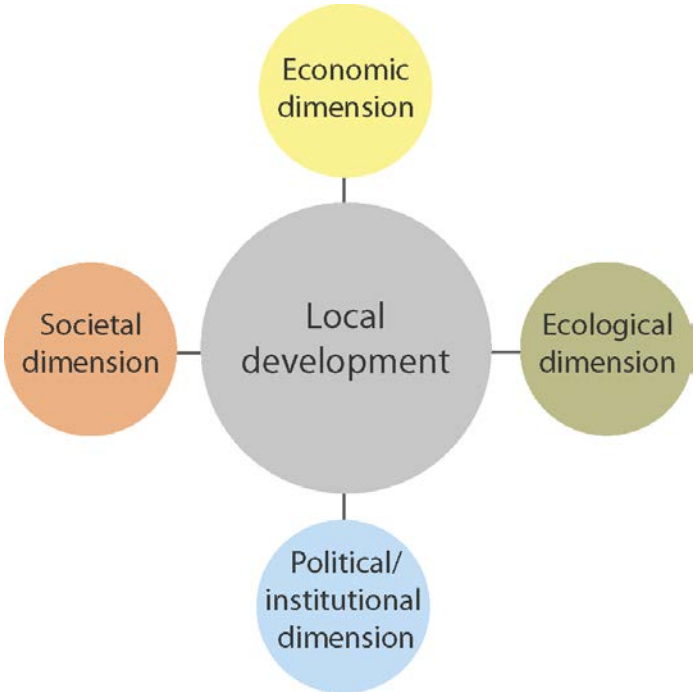


Fig. 1: Four dimensions of local development potential relating to Tash-Bashat. Design: Alsters, 2017

Research area and methodology

The village of Tash-Bashat is located along the upper length of the Naryn River eastwards of Naryn Town, the capital of the Naryn Oblast'. Together with the neighboring villages of Kayinde, Eki-Naryn and Oruk-Tam, Tash-Bashat is located at an altitude of 2,350 m (Fig. 2). Tash-Bashat's population amounts to nearly 1,400 inhabitants who are living in 312 households.²

Eighteen semi-structured interviews on the topic of local development were randomly conducted with villagers of Tash-Bashat. Building on findings from these interviews, we continued focusing on gaining a deeper insight into the mechanisms and processes of the village and its governance structure by conducting expert interviews with the head of the Ortuk Ayil Okmotu and his secretary, as well as with the local tax inspector.



Fig. 2: The village of Tash Bashat. Photography: Binder, 2016

Further knowledge on entrepreneurial development processes was obtained through an expert interview with a university lecturer on economics and entrepreneurship from the Naryn State University. We additionally interrogated two villagers who had set up their own small businesses in the milk processing and the brick-producing sector in Tash-Bashat, as well as a shop owner and a beverage deliverer. In-depths interviews with two young migrants

² Official demographics from the office of the Ortuk Ayil Okmotu from January 1, 2016.

who returned to their native village helped us to further identify employment challenges in Tash-Bashat.

Additionally, extensive talks with the local veterinarian, the head of the pasture committee, and the responsible person for the irrigation system management benefitted our understanding of farming and livestock holding, as well as of the existing ecological challenges.

Deeper insights in the socio-economic dimensions of development such as education and healthcare were gained through interviews with the school principal, the director of the kindergarden, and by a nurse working in the recently built healthcare centre. We also interviewed the person responsible for tap water management to learn about challenges to local drinking water supplies.

All those interviews are supported by numerous quantitative data accessed through the office of the Ortuk Ayl Okmotu and by our personal observations. This approach assisted in obtaining a comprehensive picture on local development processes, which we clustered along the four dimensions of the endogenous development approach.

Economic dimensions of local development in Tash-Bashat

Agriculture and livestock form the backbone of economic activities in a region with a continental climate characterized by short summers and very cold winters. Yet Tash-Bashat is surrounded by vast and rich pastures, which are predestined for the engagement in livestock holding. Therefore, animal husbandry is considered to be the main livelihood strategy in which all households of Tash-Bashat are involved. As of January 1, 2016, there were a total of 8,093 sheep, 3,172 goats, 2,299 cattle, and 1,596 horses officially registered in the local municipality.³ These numbers, however, must be regarded with some suspicion since people do not register all their livestock in order to avoid paying taxes. According to the veterinarian of Tash Bashat, livestock serves multiple purposes: it provides the basis for the villagers' nutrition during winter, it acts as a mode of transportation, and serves as a major financial asset. Selling livestock on the markets of Tokmok or At-Bashy is a common strategy in times of financial need, to meet costs for the renovation of houses, life-cycle events or investments in entrepreneurship. The quality of the animals is regarded to be the highest in Naryn due to its rich pastures, and therefore price-levels are higher than elsewhere in Kyrgyzstan. Tash-Bashat established an advanced veterinary program to protect these important assets. To expand this practice, the local government announced plans to fund a veterinarian station, which further emphasizes the importance of livestock to facilitate local economic development.⁴

Agricultural production is highly restricted by the harsh climate. Consequently, resilient plants like potatoes shape the agricultural landscape, with all households participating in their cultivation. Potatoes are produced for the market instead of being used for subsistence. The decision of farmers on what to cultivate each season, however, is highly

³ Official livestock numbers from the Ortuk Ayl Okmotu office from January 1, 2016

⁴ Interview with the local veterinarian July 19, 2016

influenced by the recommendations provided by the Ministry of Agriculture and published every year for each oblast' in Kyrgyzstan. In case of potatoes, this led to overproduction in 2015 as a year characterized by exceptionally high yields. Therefore, market prices dropped to two Som per kg, resulting in indebtedness of many small-scale farmers in the region.⁵ This example shows that there is substantial room for improvement in the direct communication between the Ministry and the farmers on the ground. Furthermore, a university lecturer of economics from the Naryn State University stretched the fact that it is "important to improve agricultural coaching [since] with better technologies, skills and more education [the farmers] could receive higher yields".⁶

Given the importance of agriculture for the socioeconomic well-being of villagers, the government of the Ortok Aiyi Okmotu is highly motivated to invest collective funds in agricultural equipment and technology. The acquisition of a collectively-owned tractor and plans to construct a greenhouse, which will allow for growing fruits and vegetables throughout the year and thus improve the nutrition of all households, serve as evidence of the efforts being made. Thereby, the local population veers away from the governmental motto and focuses on a decentralized organisation of agricultural production.⁷

There has been a push for professional training to enhance the abilities of rural farmers and give them the chance to diversify their income. A local woman started her own milk processing business with the help of professional training by a foundation in nearby Jilan-Arik.⁸ She had already been engaged in the milk processing business from 2000 until 2006, but with instructions in business administration, logistics and web-based distribution, she was able to enhance economic opportunities consistently. Her business also serves a communal purpose as she has now become a teacher and had to outsource her milk supply to various neighboring families.⁹ Similarly, a local man saw a business opportunity in the manufacturing of bricks, for which the local demand is high. However, transportation costs have let the prices to spike. He received a month-long training session, invested 250,000 Som in technical equipment and went on to supply the whole Ortok Aiyi Okmotu with his bricks. He is able to offer a very competitive price at 30 Som per piece, and sells up to 10,000 units per year. It appears that people who have received a professional training are more likely to become entrepreneurs, set up small businesses, and thereby contribute to local development on a small scale.¹⁰

Ecological dimensions of local development in Tash-Bashat

Not only are rich pastures that surround Tash-Bashat major natural assets to the inhabitants, but the local government also pointed out various natural resources in the Ortok Aiyi Okmotu, which, in their opinion, have the potential to foster development processes in the future. These include pastures, salt, iron, gold, and water. Even though potential investors

⁵ Interview with university lecturer of economics, Naryn State University, July 18, 2016

⁶ Interview with university lecturer of economics, Naryn State University, July 18, 2016

⁷ Interview with the head of the Aiyi Okmotu, July 23, 2016

⁸ Interview with entrepreneur in milk processing business, July 20, 2016

⁹ Interview with a woman producing dairy products, July 20, 2016

¹⁰ Interview with a brickmaker, July 23, 2016

are interested in the mineral resources, the head of the Aiyl Okmotu stated the importance in obtaining the sole right of ownership. He prefers to delay the extraction of these resources until the village is financially capable of extracting them themselves. Until then, the water of the Naryn River plays an important role for the Aiyl Okmotu. In 2012, the Kyrgyz government, with the support of Russia, started to construct a hydropower station in Kayinde. This generated many jobs for the local population, as well as increased revenues. The construction stopped in late 2015 due to lack of funding and it has not resumed so far. However, according to the head of the Ortok Aiyl Okmotu, there is capacity for the instalment of up to eight hydropower stations within the boundaries of the municipality.¹¹



Fig. 3: Yurt set up on the pastures of Tash-Bashat for touristic purposes.
Photography: Binder, 2016

Another sector that is said to have the potential to grow is tourism. Currently, around 150 tourists visit Tash-Bashat every year,¹² where they explore the natural reserve or access the pastures. In order to profit from the natural environment and scenic landscape, a few villagers already actively engage in setting up yurts for touristic use (Fig. 3). One of the interviewees plans to develop a tourism business in Tash-Bashat by setting up a professional internet presence which shall inform the tourists about different tours and cultural experiences that could be offered in the village. However, he sees room for improvement in the development of infrastructure that can meet the expectations of international tourists.

¹¹ Interview with the head of the Aiyl Okmotu, July 23, 2016

¹² Interview with the head of the Aiyl Okmotu, July 23, 2016

These examples show the close connection between economic and ecological dimensions, where the ecological assets can serve as opportunities of economic growth.

Political and institutional dimensions of local development in Tash-Bashat

In Tash-Bashat's center, new buildings and construction sites shape the impression of the village. They reflect the focus on and investment in human capital. A large portion of the local budget goes towards education. A new kindergarten was established in 2011 and two school buildings are currently under construction. They will provide larger classrooms for the growing number of students and give them the chance to engage in physical education on a regular basis throughout the year.¹³



Fig. 4: The new healthcare centre, established in 2013. Photography: Alsters, 2016

By investing in improvements of healthcare, the village is also focusing on human capital. A new healthcare centre was constructed in 2013 (Fig. 4). The former building had been damaged and was not longer up to the standards necessary for the number of patients. Hence, the local government set out to find financial support, which it found in an international aid organisation. With the establishment of the building, the number of employees increased from three nurses in 2012 (Schmidt 2014: 109) to five nurses and a pharmacist.¹⁴ Even though this has been a step in the right direction, one major concern

¹³ Interview with the school principle, July 19, 2016

¹⁴ Interview with a nurse working at the healthcare centre, July 16, 2016

remains in the lack of access to clean water for rural households as pointed out by the water system operator of Tash-Bashat: currently, only 25 households (or about 8 %) have access to tap water.¹⁵ Most households receive their water supply from communal water pumps, from which they fill in big plastic canisters. To tackle this problem, the local government applied for funding from the Naryn Oblast'. The application has been successful, with the regional government having committed to financial help for the construction of a village-wide pipe network. This will eventually bring chlorinated water to Tash-Bashat, but as the pipes will only run along the roads, each household will need to pay for access to their houses themselves. Although this presents a huge step forward, it cannot be expected that universal access to clean water will be established soon.

These new construction and investment activities prove that in recent years the local government has been quite inspired in coming up with ideas for the advancement of the village. They display extraordinary capabilities in mobilizing the community and securing funds from the government, as well as international aid organisations such as the Aga Khan Foundation. Their leadership qualities and commitment have fostered an environment of creating new ideas. The plausibility of these ideas is regularly being discussed between the head of the Aiyi Okmotu and the village community in town hall meetings. Throughout the year, the local government works together with a council made up of community leaders, where the villagers get the opportunity to actively participate in the decision-making processes.

Societal dimensions of local development in Tash-Bashat

In order to set endogenous potentials free, alongside a motivated local government, a strong sense of identification with and solidarity among the population, commitment to achieve common goals and active participation are of high importance. As for Tash-Bashat, the solidarity can be exemplified through various examples. The village community mutually engaged in the construction of the new school buildings and the healthcare centre. The shared acquisition of a new tractor, for which every household contributed in line with their financial capabilities, proves that people are willing to collaborate. Young people offer to work on community fields without remuneration. The acquired earnings from these activities add to the Aiyi Okmotu's budget and can be used for investments in social infrastructure serving the whole village community. Committed and capable leadership is necessary for a proper and stimulating use of the budget. The head of the Ortok Aiyi Okmotu stressed the fact that good social relations form a greater common good that need further encouragement. He is convinced that local development can only be achieved if the people work closely together: "We have to work with the local people here. We have to change our minds and we have to work by ourselves."¹⁶ Another aspect of social life is the issue of migration. Although Kyrgyzstan has a high level of literacy and general education (World Bank 2017), it suffers from an outflow of young people in search of labour in countries like Russia. Even though Kyrgyzstan is highly dependent on the remittances migrants send back

¹⁵ Interview with the tap water responsible, July 21, 2016

¹⁶ Interview with the head of the Aiyi Okmotu, July 23, 2016

(Marat 2009: 7), the so-called brain-drain is an obstacle to the future development of the country and a sign for the lack of jobs available in rural areas. Contrary to other regions in Kyrgyzstan, however, the number of emigrants in search of employment abroad appears to be relatively low in Naryn Oblast' in general, and Tash-Bashat in particular (Thieme 2012: 131). The research led to the conclusion that education is the predominant reason for migration. The main destinations for young high school graduates, of which 80 % leave the village according to the school principal, are Naryn City and Bishkek.¹⁷ Many students are financially supported by their families, and while about 60 % of migrants return to Tash-Bashat¹⁸ there is still a high unemployment rate among those returnees. Although they can hardly put their university diploma to good use, they are highly motivated to improve the socioeconomic situation of Tash-Bashat, take risks, and have a sense for big picture projects such as the development of touristic infrastructure. Even though higher education does not supply the people with jobs, it apparently teaches skills that can universally be applied to their own personal advancement.

Tash-Bashat as an example of rural endogenous development

Given the evidence provided by fieldwork, Tash Bashat can indeed be seen as a successful example of local endogenous development. The analysis of the economic dimension showed that although rural poverty is an issue in Kyrgyzstan (World Bank 2017), the people have found several ways to generate income. They rely mainly on livestock husbandry as a major economic activity, while benefitting from the high quality of their animals. Professional trainings have shown promise in enhancing the farmers' abilities and helping them to diversify their income. These trainings have fostered entrepreneurial ideas, demonstrated by the establishment of a milk processing business and a brick factory. Further potential lies in enhancing agricultural production. However, the farmers seem to be under the Ministry of Agriculture's influence when it comes to the planning of crop cultivation. In the past, this has led to serious loss of income. The local government is eager to prevent a reoccurrence through investing in agricultural equipment and technology such as a village greenhouse and a commonly owned tractor.

Various natural resources that have been found in the Ortok Aiyl Okmotu represent the ecological potential around Tash-Bashat. So far, the local government prefers to be cautious and hold off the extraction of the minerals until the village is ready to take full advantage of the benefits. In the meantime, the Naryn River can be used for its hydroelectric power. It remains to be seen if there will be enough financial resources available for the continuation and expansion of hydropower generation along the Naryn River. If there is, the natural potential could also be used to increase the touristic activities, which might in turn lead to an improvement of the village's infrastructure.

The political and institutional activities worked successfully towards the establishment of new social infrastructure, such as a new kindergarden, school buildings, and a healthcare centre. Although financial aid has been partially necessary for the completion of these

¹⁷ Interview with the school principle, July 19, 2016

¹⁸ Estimation by the head of the Aiyl Okmotu, July 23, 2016

projects, the local government has proven to be motivated and successful in securing these funds. Their leadership qualities and commitment have fostered an environment of creating new ideas. Examples are the collective construction of communal buildings, commonly financed agricultural equipment, and young people farming for communal benefit. Although Tash-Bashat suffers just as much as other Kyrgyz regions from the departure of young people, research has shown that a comparatively low figure engages in labour migration. Most high school graduates leave for university and come back eventually, due to a lack of job perspectives. In spite of the fact that there is a high unemployment rate among returnees, their education and entrepreneurial intuition has the potential to serve local development needs.

The research has shown that the development processes of Tash-Bashat are mainly locally driven. The inhabitants strongly identify with their village and use the surrounding natural resources to collectively push forward local development processes. Tash-Bashat has been able to set up strong and potentially empowering local governance structures that address prevalent livelihood challenges and strive towards improving local living conditions.

Tash-Bashat's development strategy cannot be solely attributed to one of the three approaches outlined by Bohle. It combines features of the production-oriented (improvement of regional production possibilities through education and entrepreneurship), participatory (local leaders as important contributors), and auto-centred approach (strengthening regional identities) to form a unique development path. Various interrelated dimensions of development including economic, social, political, and ecological elements equally contribute to the development processes of Tash-Bashat.

The case study shows that Endogenous Development cannot take place in a regional vacuum. Compartmentalisation in times of globalisation is hardly possible, and a certain amount of interregional support is vital since it allows for an exchange of goods, skills and ideas, as well as for funding opportunities. Nevertheless, the priority and focus of development strategies in Tash-Bashat are concentrated on the local and regional levels.

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2 The Milky Ways of the Naryn Region

Milk plays a vital role in the Kyrgyz agricultural life and in the Kyrgyz diet. Industrially processed or self-processed cattle milk to produce cheese, *chechil* or *kaimak* or processed mare's milk to make *kymys* are found in many places in Kyrgyzstan (Fig. 1). Dairy farming including the sale of milk on regional markets or to milk processing factories is especially common in rural areas such as the backcountry of the Naryn Oblast'.

Kyrgyzstan's agriculture has been dominated by animal husbandry for a long time. Due to the endowment with vast grasslands, its mountainous topography and a climate favorable for animal husbandry, the Kyrgyz Socialist Soviet Republic was developed into a central wool and meat producer in Soviet times (Dörre 2012: 128; UNDP 2013: 12). More than 45 % of the total surface area and 90% of the country's agricultural land is covered by rangelands (Dörre 2015: 8; Blank 2007: 10). In the 1920s, the agricultural structures were modified by the introduction of a state-controlled agricultural production. Strict five year plans defined the quotas of meat, milk and wool production of the newly created collective and state farms (Blank 2007: 10-11). With the dissolution of the Soviet Union in 1991 and the following privatisation of agriculture, animal husbandry became essential for the survival of the people, especially in rural areas. At the beginning of the 21st century, animal husbandry added more than 40 % to the value creation of the agricultural sector (Dörre 2015: 8; Dörre & Borchardt 2012: 313).



Fig. 1: Chechil, an increasingly popular dairy product in Kyrgyzstan.

Photography: Gallus, 2016

Chechil is a kind of string cheese with a consistency of cured raw milk cheese. The cheese strings are rolled up in a figure of eight and smoked before consumption.

Kaymak is a creamy dairy product with a high percentage of milk fat. Kaymak is a basic part of the daily cuisine in Kyrgyzstan.

Kymys is fermented mare's milk with a mild content of alcohol. People ascribe healing powers to *kymys*; especially against respiratory diseases.

Within the last decade, the industrial milk processing sector developed further by using advanced dairy processing technology for the pasteurisation of milk, the production of cheese, as well as packaging and marketing of dairy products as local produce. However, scientific research paid little attention to the logistics and economics of rural dairy farming in Kyrgyzstan thus far, and little is known about the local and regional milk trade in rural areas. This paper aims to contribute to a better understanding of the milk industry in rural Kyrgyzstan by analyzing the social, economic, and spatial organisation of the dairy production and distribution in Naryn Oblast'.

The case study focuses on the At-Bashy cheese factory and Naryn milk factory as two central processing plants in the regional dairy industry. The researchers spent two weeks in several villages around Naryn Town for interviews in order to develop a better understanding of the social and economic structures of the dairy industry. The interviews with place-based actors and stakeholders were held at the locations of the companies, and were followed by additional interviews with farmers and distributors, as well as by observations conducted in grocery stores and supermarkets where dairy products are sold. This is also done with a view to analyse projects of development cooperation in the local milk-processing sector.

The Global Commodity Chain Approach as devised by Gereffi et al. (1994) served as the analytical framework of the study. The approach allows for a theoretically informed understanding of the business and company structures in the local milk-processing sector. It considers the perspectives of the milk farmers, as well as the flows of financial aid and information.

Conceptual framework: the global commodity chain approach

A commodity chain can be characterized by production processes and labour networks involved in commodity production (Hopkins & Wallerstein 1986: 159). The aim of the research is to gain a better understanding of the dairy milk industry, to reconstruct the dairy product-related commodity and value chains by looking closely at the production processes and contextualizing the involved actors. The Global Commodity Chain by Gereffi et al. (1994) provides a suitable framework for contextualisation and analysis of dairy production and trade in Naryn Oblast'. Created within the context of globalisation and putting the focus on the production of goods, the global commodity chain approach enables an analysis of the cross-links, allocation, and interactions of production sites and key stakeholders (Gereffi et al. 1994: 2). The global commodity chains framework directly relates to local production, income, employment, and trade (Gereffi & Fernandez-Stark 2016: 6). In a further perspective, the framework provides an understanding about the organisation of global industries and their structures and dynamics, and facilitates a stakeholder analysis (Gereffi & Fernandez-Stark 2016: 6). In the approach devised by Gereffi et al. (1994), the debate on commodity chain analysis is characterised by four analytical dimensions to be applied in a detailed analysis of the structures and organisation of a commodity chain: territoriality, institutional frameworks, governance structures, and economics within input-output-structures. These institutional, socio-economical, territorial and cultural variables have a decisive influence on the shape and functionings of commodity chains (Hassler 2009: 202). Gereffi et al. (1994) place commodity chains centrally in global economic processes by also explaining how production processes crosscut state borders. The four analytical dimensions are briefly outlined in the following.

Dimensions of value chain analysis

Economic dimension

The input-output structure looks at the distribution and role of all involved stakeholders in primary commodity production and further processing, the means of adding economic value

to the commodity chain at different nodes, and the principal activities of the industry. This dimension of the input-output structure also facilitates the analysis of the interaction between different local actors to achieve upgrading (Gereffi & Fernandez-Stark 2016: 7). Each segment of the value chain is characterized by social and economic dynamics and structures (e.g. of companies) adding value to a product.

Territoriality

Working within a global context, supply chains are spread out across different parts of the world. Supply and trade are the bases for the geographical analysis in the dimension of territoriality. In general, commodity chains operate on different geographical scales, i.e. the global, national, regional or local level (Gereffi & Fernandez-Stark 2016: 7). A commodity chain can be characterized by a high spatial heterogeneity. Territoriality is also influenced through competitors or consumer location. Infrastructure such as communication technologies, industrial capabilities or transport systems can be seen as major influencing aspects within the territorial dimension (Hassler 2009: 204). The case study of Naryn analyzing the territoriality of the milk value chain sheds light on the distribution of actors within the region and their interconnectedness and addresses challenges regarding infrastructure and transportation.

Institutional framework

The institutional framework addresses the rules for the functioning of a commodity chain from primary production, processes of adding value to trade and marketing of a product., The industry value chain “is embedded in local economic and social elements” (Gereffi & Fernandez-Stark 2016: 7), but national or regional institutions will also influence locally concentrated commodity chains. Analyzing the institutional framework is crucial to understand how the regional milk value and commodity chain is organized in contexts of the regulatory powers of formal and informal institutions.

Governance dimension

Governance analysis looks at the control mechanisms and power distribution of a commodity chain (Gereffi & Fernandez-Stark 2016: 10), e.g. in terms of financial, material or human resources. A governance analysis maps the local dynamics within and between companies, workers, industry associations, government institutions and aid agencies (Gereffi, Fernandez-Stark 2016: 10, 14). Within the dairy product commodity chain in Naryn, this means looking at local power configurations and their effects.

With reference to the rural dairy production in Naryn, the approach by Gereffi et al. allows for an analysis of the dairy sector chain in Naryn in its entirety, as well as the identification of challenges along the chain.

Research approach

The principal aim of this study is to contribute to a better understanding of the rural dairy business in rural Kyrgyzstan. Figure 2 illustrates the applied research framework, including objectives, research design, and methods. The empirical research took place in the Naryn Province including Naryn Town and its surrounding rural areas. The main research goal

included the collection of general socio-economic characteristics of stakeholders in the dairy sector and their strategies for value adding and marketing.

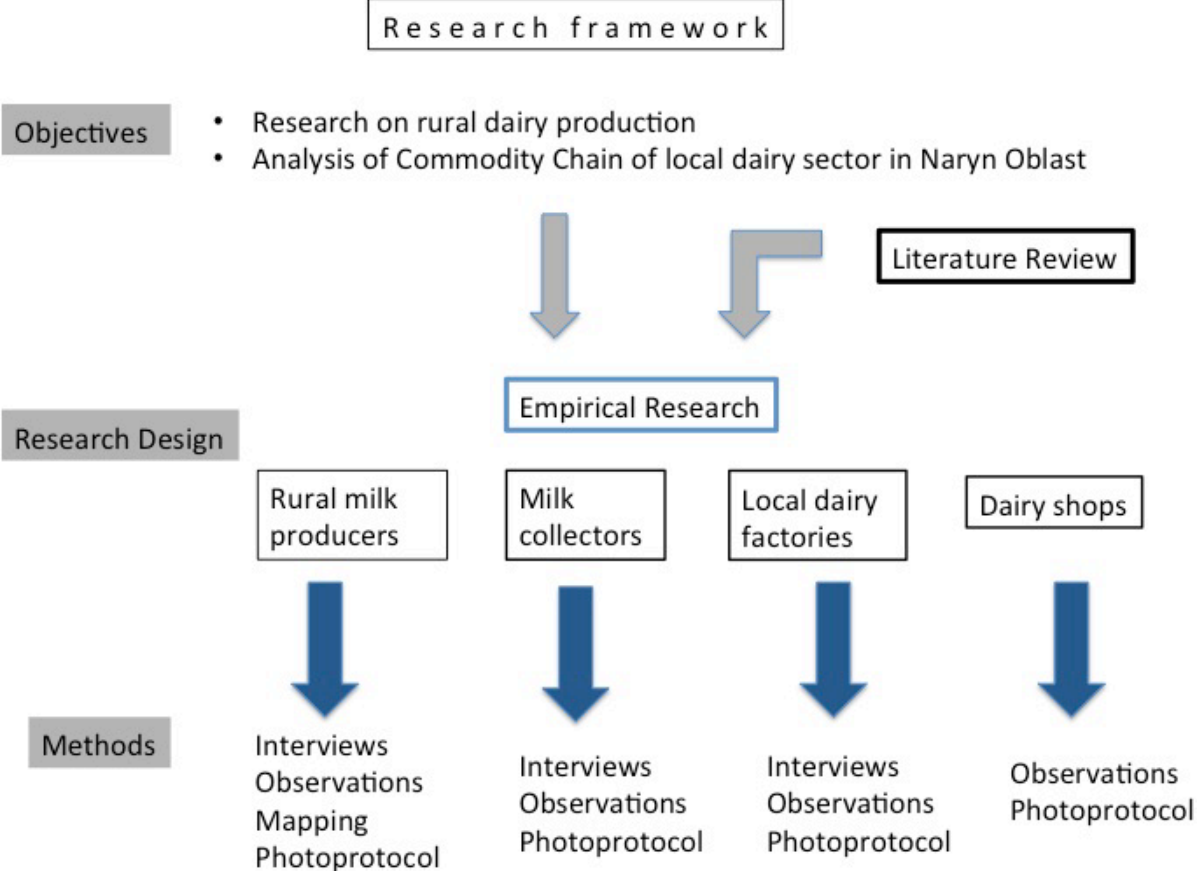


Fig. 2: Research framework. Design: Gallus, 2017

This has been approached by applying a fieldwork approach directed at multiple stakeholder along the commodity chain. The authors conducted 15 in-depth semi-structured interviews in different parts of the Naryn Oblast'. In each study village (Tash-Bashat delivering the milk to the Naryn milk processing plant, and Ak-Jar delivering to At-Bashy milk factory) the authors conducted interviews with about 20 % of the supplying farmers. Additional in-depth interviews took place with the factory owners in Naryn and At-Bashy, as well as with the collectors of the raw milk from the farmers. The observation of the raw milk collecting process in the early morning hours provided contextual information as well as insights into the everyday practices of rural dairy production. The process of milk delivery at defined collecting points was also observed. In addition to interviews, a photo documentation, and mental mapping of the villages took place for visual protocol.

Dairy agriculture in Naryn

Primary milk production in the Naryn Region is mainly a smallholder activity. The dairy factories in Naryn and At-Bashy only proceed cattle milk. About 65 % of the interviewed milk producers in the villages Tash-Bashat and At-Bashy have less than 10 heads of cattle, and only two out of 14 farmers have more than 30 heads of cattle. The smallholder farms generate income from meat, livestock trade and dairy business. For 43 % of the interviewed

rural milk producers around Naryn city, the sale of milk is the main source of income. In contrast, for the interviewed milk producers in At-Bashy the sale of milk is not the priority income source: livestock trade, pension, pensionable jobs as teachers or skilled work in mechanics as well as financial support through remittances characterize the main income sources for this group of respondents. Milk is also used and further processed for household consumption, but most primary milk production is sold to the two processing factories in the region, even though observations on markets in At-Basyh and Naryn have also shown sales of raw and processed milk by individual farmers.

Milking takes place in the morning and in the evening. The raw milk is transported in milk cans and picked up every morning by the local milk collector. Some producers in both areas deliver the milk directly to the processing factory. In At-Bashy, the milk of around 90 local milk producers is collected in 17 collecting-stations.

At each collecting point, two to ten farmers wait every morning for the collector and his milk truck. This is mainly the task of a female household member. The stations also serve as social meeting places used for networking with other women in the village. The collector is an employee of the cheese factory in At-Bashy, who uses this work to supplement his agricultural income. The cheese factory of At-Bashy staffs different milk collectors in each village.

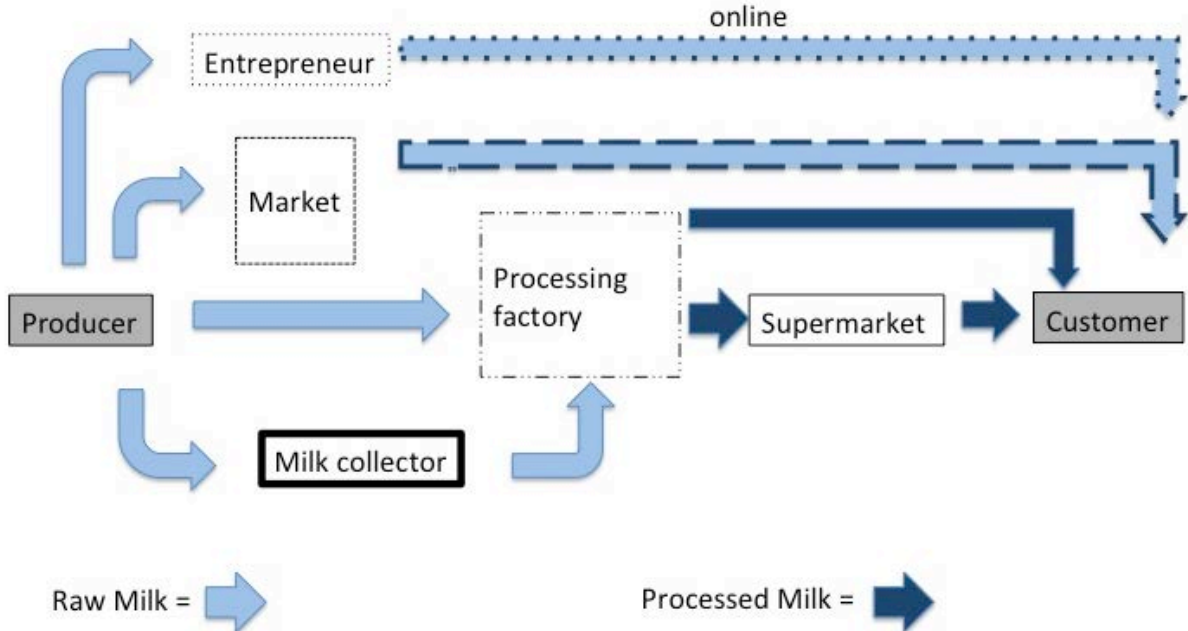


Fig. 3: Commodity chain of the rural dairy sector in Naryn Oblast'. Design: Gallus, 2017

The collector of Tash-Bashat who delivers to the Naryn processing site collects milk from 15 farmers, but has no formal work contract with the factory. The individual dairy business of a local female entrepreneur consists of the purchase of raw milk and self-processed products for sale in her local shop, as well as online-trade with the help of a national online-shop called Zakupki¹, where potential buyers get information about her business and product portfolio. However, customers of this start-up also have the possibility to order dairy

¹ Sale is partly organized by national online shop Zakupki.gov.kg as the entrepreneur stated in the interview.

products in Naryn. Hospitals and kindergartens are among her biggest client group but she also collects now increasing quantities of raw milk out of local village production. As a stakeholder combining several links of the chain, this femal entrepreneur can be seen as an exceptional actor within the dairy commodity chain in the rural context of Naryn. Figure 3 shows the flow of the raw milk from the production site to the customers.

Value chains of milk production and processing in Naryn

The analysis of input-output structures examines the processes of adding value within a commodity chain. Another focus is directed on how the involved stakeholders regulate the commodity chain, i.e. how value is added to the raw milk by processing, packing, storing, and marketing.

Farmers sell their milk via a milk collector or directly to the milk processing factories in Naryn Town and At-Bashy, which then further process the milk into cheese products. The At-Bashy cheese factory produces five different kinds of cheese, as well as butter and cream. Figure 4 shows the proportion of milk and Gouda-cheese, and its added value for the case of the At-Bashy cheese factory. The factory owners sell their products to supermarkets in Naryn and Bishkek. In the Naryn factory, the raw milk is primarily processed to packed milk, cottage cheese, and ayran.

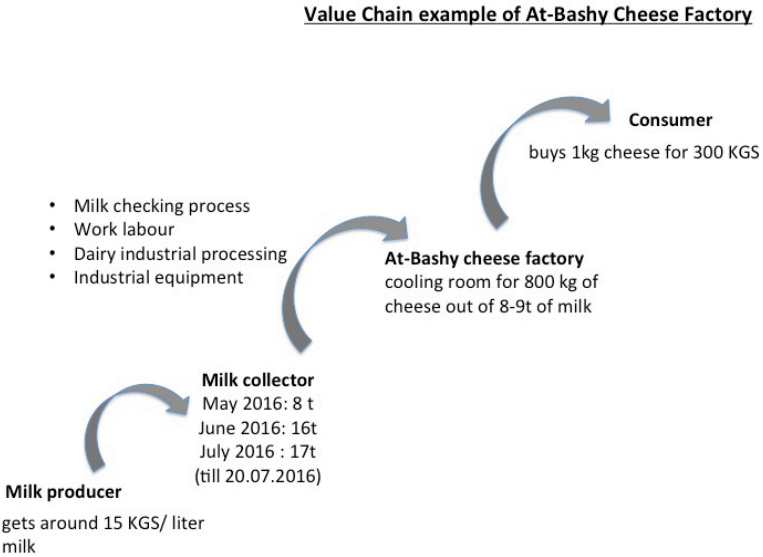


Fig. 4: Proportion of milk/cheese and its added value At-Bashy Cheese Factory. Design: Gallus, 2017

The products are exclusively sold in Naryn Town. Some producers in both areas deliver their milk directly to the processing factory. Packed milk offers the highest profit to the factory owners in Naryn. The factory buys one liter raw milk for 12 Som in summer and 25 Som in winter when overall production is lower. The sale price for one liter packed milk is 35 Som. The research showed that the farmers prioritized selling the milk directly to the factory and processing only small amounts of raw milk for own consumption. The milk collector of At-Bashy collects a wide range of quantities from the various milk farmers, from three liters up to 60 liters, on average around 25 liters per day per milk producer. The milk prices in the At-Bashy region vary, with the cheese factory being endowed with price setting power. In 2016, the price dropped from 15 Som per liter to 13 Som in May, and to 11 Som in June. For the interviewed milk producers the fixed acceptance of the prices set by factories nevertheless provides secure income even though price fluctuations occur. Once a year animals get a vaccination resulting in a 15-day break of raw milk delivery. Figure 4 shows the value-adding process for one liter of milk provided by the primary producer remunerated with 15 Som, and the upgraded product in form of cheese sold for 300 Som per kilogram at the At-Bashy Cheese Factory. The smoked cheese from the At-Bashy cheese factory is a

durable product that is sold in Naryn’s grocery stores and supermarkets, and is even exported to the Kyrgyz capital of Bishkek.

Territoriality of milk production

The Naryn Oblast’ is a strongly rural administrative entity with a localised concentration of the commodity chain in the dairy sector. Analysis of the marketing situation for milk and milk products further supports the characterisation of the commodity chain as locally concentrated, with the processing factories as bottlenecks because they are the only processing industries in the area that buy raw milk from the farmer (Fig. 5).

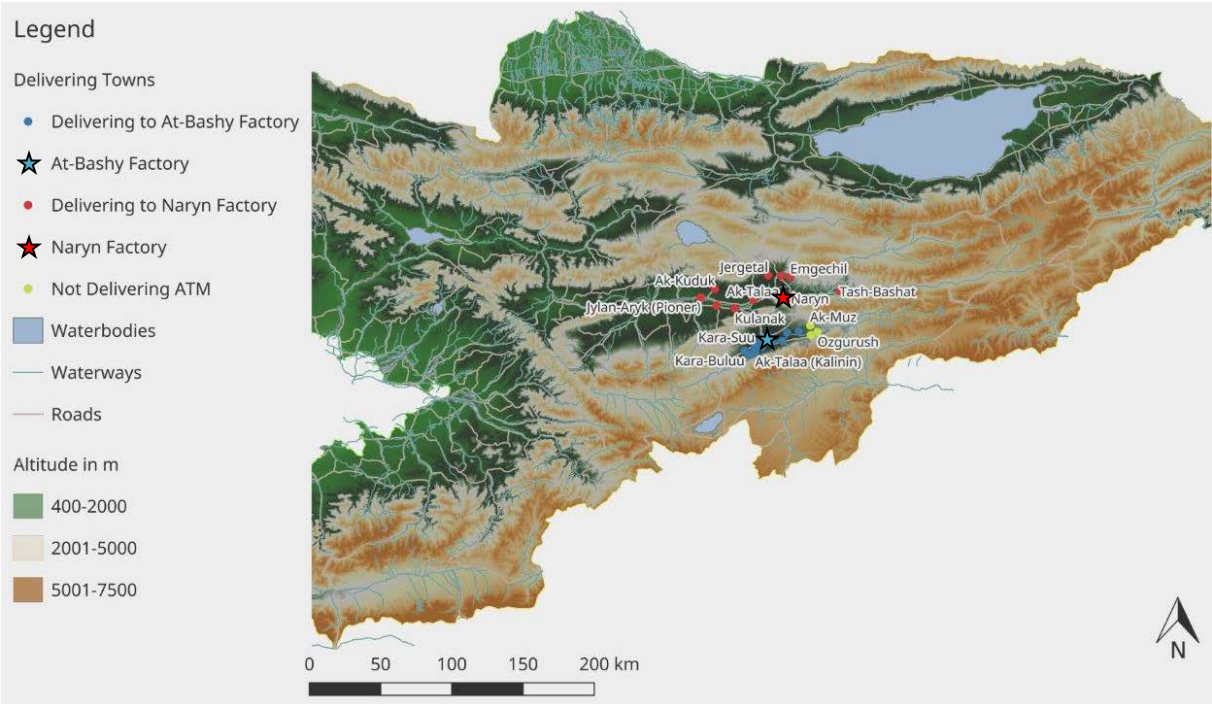


Fig. 5: Settlements from where milk is delivered to the dairy in Naryn. Design: Bothe, 2017

The milk collectors of the At-Bashy factory pick up the milk from milk producers in nine different villages from up to 40 km distance. The pastures of the milk producers in At-Bashy are up to 70 km away, keeping only a certain amount of cattle within the factory’s milk acquisition area. The catchment area of the factory in Naryn Town has a radius of approximately 40 km. The distance between the factories in Naryn and At-Bashy is a one-hour drive for around 50 km. Some farmers organize themselves in collectives to drop off raw milk. The processed dairy products are primarily sold within the Naryn Oblast’ itself, except for the At-Bashy smoked cheese that can also be found in a few supermarkets in Bishkek. In addition to supermarkets, the factory in Naryn Town also delivers about seven tons of milk per month to kindergardens and schools in the region.

The challenge of storing milk is common knowledge, and the greater the distance and travel time to the factory, the greater the possibility that the raw milk turns bad by the time of its arrival. Recent road improvements by the government however improved the transport connections.

Institutional framework in Naryn

The At-Bashy cheese factory was the first of its kind in the Naryn region, established in 2011, although the equipment as well as the official registration for milk processing exist since

2009. The membership in the National Milk Association is not obligatory for milk and cheese factories, but members have to pay a fee of 10,000 Som per year. The association has the aim to help the dairy business in Kyrgyzstan by representing a social network of the stakeholders. For the factory owner in At-Bashy, the association does not fulfil its supportive role of improving and consulting his business because the large distance between At-Bashy and Bishkek results in a sluggish flow of information. The owners of the At-Bashy cheese factory hope to receive consultancy for the development of an export market for their products, which include ecological pure cheese due to the antibiotic-free dairy industry and therefore probably have a high potential for export.

The Naryn Town milk factory is also not a member of the association. The factory in Naryn Town was founded in 2009 and had to be relocated to Naryn Town from another village site after a USAID project that aimed to support the venture posed the condition of Naryn needing to be the factory location. Both factories however stated a lack of support from the relevant government institutions and bemoaned the lack of transparency in the National Milk Association, and a transparent distribution of donor funds. This vacuum has been addressed by development agencies, and both factories were endowed with support by international donor agencies.

In 2014, UNDP and the Ministry for Foreign Affairs of Finland sent experts to provide capacity building and technical equipment to both factories. The Naryn milk factory was further involved in a NGO-programme on cheese production. In November 2015, the German Senior Expert Service (SES) conducted additional programmes in building local capacity for Gouda cheese production. As milk is difficult to further process using old machineries, the manager of the factory plans to increasingly focus on cheese production with hopes for a higher income. However, because Gouda is an unknown product in Kyrgyzstan, the Naryn Town milk factory produces locally demanded smoked cheese.

The different activities within institutional spheres in the dairy sector are visible through the activities of foreign development agencies. In both factories, the projects supported the needs of the factory managers or individual entrepreneurs in a short-term manner, exemplifying the increasing role of international actors in steering locally concentrated commodity chains with a focus on value-adding in factory settings. The Naryn Oblast' Administration is aware of the international projects and seeks a complementary way by advising individual milk producers in value adding strategies in order to soften their dependence from the milk processing factories.

Milk governance in Naryn

The raw milk bought by the factory in At-Bashy needs to fulfil certain standards. Milk collectors need to attend seminars about hygienic rules every two years in order to become certified milk collectors. Collectors test raw milk immediately at the collection points before transporting it to the factory. It is clearly their responsibility to deliver "good" milk, and raw milk that does not pass the quality test at the factory will be rejected without refund. There are 52 workers of the At Bashy cheese factory with a formal work contract. The factory pays taxes and supports collectors financially by providing a truck and petrol money. This is in contrast to the privately organised milk collection around Naryn that operates without support by the Naryn milk factory. In addition to picking up and dropping off the raw milk,

collectors are also responsible for the exact payment of primary milk producers. The milk producers are listed with the amount of milk they supply, but they are not direct contractors with the factory. Rather, the relationship of the collector with the milk producers operates on a personal level.

The price for one liter of milk is set by the At-Bashy cheese factory and Naryn Town milk factory, and price negotiations are not common in both factories. The “private” milk collectors of Naryn get an amount of two Som per liter from the farmers for their service. Milk is checked upon arrival by the factory staff. Obligatory for the milk producers is a veterinary document showing the latest vaccinations of the animals. In both locations, the farmers are paid every fortnight.

Most milk producers deliver their milk directly to the factory in Naryn. The At-Bashy factory is among the bigger dairy processing factories in the country, being the first of its kind in the Naryn Province and showing a higher degree of professionalism regarding hygiene standards and storage of processed goods when compared to the factory in Naryn.

At Bashy and Naryn Dairy Industry

Kyrgyz dairy processors face a number of constraints when they attempt to produce locally and export within the closer region or beyond the nation borders. For instance, the cross-border cooperation is difficult as the region’s transport network is not set up with connections between economic interest zones. The data assessment presented in Figure 6 is explicitly based on the qualitative data from the conducted interviews.

At-Bashy Cheese factory		Naryn	
<p>Strengths</p> <ul style="list-style-type: none"> - Well known brand for smoked cheese - Priced according to kyrgyz mindset - Customers have positive perception about brand - Local staff - Highly structured company guidelines - Fostering business relationships through supports as petrol money for collectors 	<p>Weaknesses</p> <ul style="list-style-type: none"> - Lack of finance - Lack of machinery for ice-cream production - Lack of knowledge for export licence 	<p>Strengths</p> <ul style="list-style-type: none"> - Local production site - Close to consumers - Short transport within Naryn 	<p>Weaknesses</p> <ul style="list-style-type: none"> - Lack of finance to implement advices by SES - Lack of new packing machines - Lack of hygienic standards - No certification process of collectors - Technical equipment out of order
<p>Opportunities</p> <ul style="list-style-type: none"> • Staff-power for growth • Membership in milk association 	<p>Threats</p> <ul style="list-style-type: none"> - Increasing import products from Russia - Infrastructure issues (transport) 	<p>Opportunities</p> <ul style="list-style-type: none"> - Branding of local milk - Shop sale due to big factory space - SES teaching of Gouda cheese 	<p>Threats</p> <ul style="list-style-type: none"> - Increasing import products from Russia - Competitor factory At-Bashy - Decrease of milk deliveries due private milk processing shops

Fig. 6: SWOT-Tables of the cheese factories in At-Bashy and Naryn Town. Design: Gallus, 2017

The analysis of the strengths, weaknesses, opportunities and threats of the At-Bashy factory shows opportunities in expansion by developments of staff size and by accessing support of the National Milk Association. A lack of investment funds results in restrictions of further

product diversity such as in ice cream production. The lack of knowledge for an export licence further restricts production increase. The factory owners have not conducted business plans for the planned export of cheese products.

The supermarkets and merchants in Naryn Town showed little interest in local dairy brands or activities directed towards improved local branding, even though the local production site of the Naryn Town factory represents a clear strength for local branding. Weaknesses such as a lack of hygienic standards, lack of technical equipment, and finance, but also the possible improvement of the organisation of milk collectors are not seen as a priority of the director.

Within the research of the rural dairy value chain, different power relations became visible. The milk processing factories set fixed prices for raw milk purchase, but primary producers are not organized in a cooperative or interest group to get a better stake in price negotiations.

Development Cooperation focusing on Naryn Town shows a high impact on the development of local dairy industries. The creation of new value creating processes was made possible by international development cooperation, but the implementation was not focused on a long-term business partnerships. Technical equipment was provided but the means for maintenance and repair were not established. Programme recipients nevertheless stated some degree of satisfaction with the funds offered by external donors. While the demand for milk in the countryside is relatively low because almost every household keeps cattle for household milk supply, there exists a growing market for processed milk products.

Conclusion

The milk products produced by the two milk factories feed the growing urban demand for dairy products in Naryn Town. This lends credence to the interpretation that the dairy industry in Naryn Province has a growing future market. Still, it is apparent that the dairy industry lacks financial investment possibilities to grow within the national market, and faces the additional challenge of competitors from other Kyrgyz regions like Bishkek City or the Issyk-Kul Oblast'.

Development cooperation organisations provide only punctual support, e.g. by enabling entrepreneurship as evident in the example of the online milk trade store by an individual entrepreneur, or by supporting factories rather than local primary producers. Primary milk producers continue to depend on personal relationships with milk collectors, and the growing demand for raw-milk for further processing.

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Partial view of the Solton Sary Gold-mine. Photography: Dörre, 2016



Waste dump of the Solton Sary Gold-mine. Photography: Dörre, 2016

3 Gold Mining Industries and Local Livelihoods in Rural Naryn

Introduction

Livelihoods of rural communities in the Naryn region are mostly dependent on a combination of livestock and agriculture farming as well as other formal and informal economic activities that provide additional financial income. In the villages of Emgekchil and Ming-Bulak, informal, small-scale and artisanal gold mining is a crucial but oftentimes risky source of income for many households in an environment that has been recently integrated into the global capitalist economy and is marked by the absence of sufficient formal and secure employment and socio-economic safety networks. Simultaneously, formal mining exists in an ambivalent and often contradicting relationship with informal extractions and plays an equally important, but different role in the formation of local livelihoods. This paper aims to analyze the significance of both informal, small-scale and formal gold mining industries for the livelihood strategies of inhabitants of two rural communities located in the Naryn Oblast'. It further situates these livelihood strategies within local and global economic systems as well as socio-political and historical developments in the region. It is based on field research conducted in Emgekchil and Ming-Bulak in July 2016 that will be analyzed in the context of wider literature on informal mining economies, global production networks and economic transformation in Kyrgyzstan.

As Steimann (2011: 32) argues, the "high degree of hybridity, uncertainty and disorientation that characterize post-socialist transformation processes" in Kyrgyzstan calls for research and analysis focused on local-level processes and responses to the "various 'paths' of post-socialist transformation". He thus contends that due to the increase of uncertainty since the collapse of the Soviet Union, the population responded by increasing their flexibility and diversifying their sources of livelihood (ibid.: 35-37). This is exemplified by our research. In the two communities where we conducted our study, Emgekchil and Ming-Bulak, we found two varying approaches and livelihood strategies which utilize the specific resources and knowledge available to the inhabitants in order to cope with, adopt, resist and transform the area's post-socialist trajectory and prevalent socio-economic relations. Drawing on the large field of literature concerned with rural livelihoods, it is important to acknowledge the complexity and diversity that marks livelihood strategies while focusing on the access as well as different forms of utilization of (material and immaterial) capital and resources. Contemporary studies mostly build on Chambers and Conway's people-centred approach, according to which "a livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living" (Chambers & Conway 1992: 6). Depending on their individual endowment with (financial, social, human, physical and natural) capital, inhabitants of Emgekchil and Ming-Bulak combined agriculture, animal husbandry, labour migration, local employment and other income generating activities, of which small-scale mining was one of the most prevalent ones.

Artisanal and small-scale mining (ASM) are an important source of income for many individuals and groups across the world, and at least in terms of the amount of labourers,

estimated to be 20-30 million globally, it should be considered of equal importance to the large-scale and formal mining industries (Buxton 2013: 1; Hentschel, Hruschka & Priester 2002). Despite the lack of an agreed upon definition of ASM, several conditions are identified which characterize this sector. Among these are the necessity for hard manual labour, due to a “lack or very reduced degree of mechanization, [...] low level of occupational safety and health care, [...] exploitation of marginal and/or very small deposits, [...] low level of salaries and income [and] mostly working without legal mining titles” (Hentschel, Hruschka & Priester 2002: 5). All of these aspects we found to be true to varying degrees within our field work. A consensus among scholars seems to have emerged, which contextualizes the expansion of ASM as a response or coping-strategy mostly found in rural areas to “interrelated processes of structural adjustment, de-agrarianization” and poverty (Verbrugge 2015: 1028; Hentschel, Hruschka & Priester 2002; Hilson & Maconachie 2010). While some highlight ASM as a means for survival and the possibility to generate financial income, others stress that it simultaneously exposes rural populations to income insecurity and health and safety risks (Fisher et al: 2009).

During the existence of the Soviet Union, Kyrgyzstan (alongside the other Central Asian Republics) was extensively mapped and explored, which led to the discovery and evaluation of hundreds of mineral deposits, many of which have been undeveloped ever since their discovery (Clark & Naito 1998: 105). Kyrgyzstan’s mining and metallurgical sector also played a substantial role in the raw material economy of the USSR (Abdyrakhmanova, Bogdetsky & Ibraev 2001: 13). From 1993 onwards, foreign investors became involved in gold mining and in 1996, the Kumtor mine began production (ibid.: 27). The state gold mining company Kyrgyzaltyn was founded in 1992 and was renamed as Kyrgyzaltyn OJSC (open joint stock company) in 1999 (Kyrgyzaltyn 2017). In contrast, ASM has been carried out in Kyrgyzstan for several hundred years, and during the Soviet era of the 1930s and 40s, small-scale mining took the form of legal co-operatives (Appel, Dyikanova, Esengulova & Tagaeva 2004: 4). After the collapse of the Soviet Union, thousands of people became involved in informal gold mining, due to losing their jobs and in the absence of other ways to generate income. Out of the two ways to mine gold in ASM, placer gold mining is allowed, while hard rock mining is prohibited. However, rules and regulations are often contradictory, conflicting and seldomly enforced. In the absence of any legal outlets where they could sell their gold, small-scale gold miners have to sell it illegally to gold buyers who are mostly Kyrgyz, Uzbek or Chinese nationals (ibid.).

Methodology

This paper is based on field research conducted in the villages of Emgekchil and Ming-Bulak in July 2016. The research consisted mainly of semi-structured interviews, observations and two informal focus-group discussions. The interviews were conducted in Kyrgyz and simultaneously translated into English. We interviewed 22 informal, male gold miners, two former informal gold miners, four owners of processing equipment, two women involved in processing, nine female members of informal gold mining households, seven male employees of Kyrgyzaltyn (Kyrgyz state gold mining company), two female employees (cooks) of

Kyrgyzaltyn, two male employees (security) of China Gold (Chinese mining company), the head of the Aiyi Okmoty of Emgekchil, four public employees (in Emgekchil and Ming-Bulak), one engineer at the institute of geology, one police officer and four shop owners. The interview partners were identified through relationships that Nadira Bekboeva had in the villages and by finding new contact persons who helped us approach individuals or households involved in the production chain. Many partners were also identified by simply following the sights, sounds and smells of gold mining. It was easy to recognize households involved in gold mining as they either had jeeps parked outside, the turning and churning of the processing machines could be heard or by smelling the unpleasant fumes that are emitted when burning the gold particles with acid. So knocking on the right doors turned out to be the most effective way to find interview partners and often gave us the chance to observe the processing of gold-containing stones and sands brought back from the mining sites.

Introduction to the study area

The conducted research focused on the village of Emgekchil, where it is reported that inhabitants have been involved in small-scale mining activities for the last 20-30 years, probably since the collapse of the Soviet Union. Emgekchil has a population of 3,107 persons living in 651 households and is located about 21 km north of Naryn city. Currently, small-scale and illegalized gold mining seems to be the most important source of income, and 70-90 % of all households are reportedly involved in the production chain while about 170 inhabitants are employed with the state mining company "Kyrgyzaltyn". Research was also conducted in the communities of Örnök, Kuibuishev and Ming-Bulak, which are united in the Aiyi Okmotu of Ming-Bulak, located about 7 km east of Emgekchil and have a total population of around 5,500 persons living in 1,178 households. In these communities, a much smaller percentage of the population is involved in small-scale mining or employed with mining companies but the research allowed informative comparisons of differing livelihood strategies in the two areas. The stones containing gold are excavated in three areas located in Solton-Sary (Buchuk, Ak-Tash and Altyn-Tor). Solton-Sary, a three to five hour drive from the villages, is where the summer pastures of Emgekchil and the neighbouring Ming-Bulak are historically located, a fact which has been officially acknowledged in the Kyrgyz law on pastures in 2009 (LKRÖP art. III, § 2). It is estimated that the gold reserves in Solton-Sary amount to 20 t (Kyrgyzaltyn 2012). The attribution of these areas to Emgekchil and Ming-Bulak is not only significant for small-scale mining but also because of the location of several gold mining companies who are either prospecting or extracting gold there. The most important among these is the state company Kyrgyzaltyn, who is operating an open-pit mine and processing factory in Altyn-Tor. These companies recruit workers from the respective villages and also pay taxes to the two local municipalities of Emgekchil as well as Ming-Bulak and are thus by far the most important contributors to the budgets of the villages' administrations.

Following the gold - the production chain

While focusing on local-level processes and ways of adapting to transformations and uncertainties, it is nevertheless important to locate socio-economic activities within local and global production networks and hierarchies. We will therefore apply the Global Commodity Chain (GCC) approach in our analysis, which, according to Gereffi et al., shows how “production, distribution, and consumption are shaped by the social relations [...] that characterize the sequential stages of input acquisition, manufacturing, distribution, marketing, and consumption [...] promotes a nuanced analysis of world-economic spatial inequalities in terms of differential access to markets and resources” (1994: 2). Following this framework, our analysis will embed production processes in the relevant physical and social spaces and pay attention to how both production and social relations are simultaneously influencing and shaping each other. The importance of local and informal networks for credit acquisition, as well as for renting and borrowing of processing equipment, vehicles and other assets are one main point of interest.

Even though it was not possible to explore the whole commodity chain and to identify all actors involved as intended by the approach, but rather only the lower echelons, the framework is nevertheless useful to indicate the extractivist nature of the gold mining industry. It enables us to connect the informal and illegalized miners in Emgekchil and Ming-Bulak with global transport routes, trade nodes and consumers of gold on global markets, such as in China, India or Europe. However, instead of merely reproducing a simplified north-south dichotomy, the GCC framework rather draws our attention to the various hierarchies and differentiated access to knowledge and resources of the various actors that make up the chain. The production processes that we were able to observe during the field research can be divided into excavation, processing and sale. As they are important for the overall analysis, these steps will be outlined below. All the information provided was obtained through interviews and by observing labour processes.

Excavation

Small-scale and illegalized extraction of stones from the mining sites takes place mainly in the months between August and March when the water levels are lower and there is less or no security personnel present at the mining sites, which have officially been leased to different state- or private mining companies. Groups of miners from the villages that consist of three to 15 individuals travel to the mining sites in Solton-Sary, located almost 4,000 m above sea level. There they will stay in tents for a period between one day and one month. Some large groups even had members who were responsible for cooking and various forms of division of labour seemed to exist. Interviewees described the conditions as very hard and mentioned that there were hardly any safety measures taken. In the winter, the temperatures fall down to -45°C in the mountains and the high altitude further strains the miners. Many reported injuries and health problems as a result of the dire conditions and the need to carry heavy weights. The gold deposits in the stones are indicated by the presence of quartz and most mining groups have become experienced in choosing the right locations for excavation. While some groups extract stones through open pit mining, most dig tunnels that can be between three to 100 m long, using explosives,

some of which motor-operated but mostly consisting of manual tools, which the miners often make themselves. Stones are filled into durable bags that can fit up to 90 kg and carried from the end of the tunnels to the camp-sites where they are finally loaded onto lorries, jeeps and other cars and transported back to the villages (Fig. 1). One bag of stones may contain anything between 0 and 100 g (or even more) of gold, and how much income individual miners make in one trip to the mining sites is starkly fluctuating. The drive to and from the mining site can take a long time and might be dangerous during the winter months, as the dirt roads are often steep and covered in snow.



Fig. 1: Bags holding gold-containing stones and sands brought back from the mining sites in Solton-Sary.

Photography: Soulier, 2016

Processing

The gold is extracted from the collected stones in several consecutive steps using self-built machines and manual labour processes. In Emgekchil, where most stones are processed, about one-third of all households have workshops with the necessary machines in their backyards, which can be relatively simple but also highly sophisticated. Initially, stones are dried over ovens before they are put in the first motor-run machine, which consists of two large revolving drums that contain iron balls, which over several hours grind the stones to sand (Fig. 2). Afterwards, the sand is sieved before being washed by hand in large tubs of water or in specific, vibrating machines that are lined with grids through which the heavy gold is retained, while sand and dirt is washed away. Finally, the remaining, concentrated gold-dirt mixture is mixed with acid and burned over fires or hotplates, leaving the households with pure gold that is sold in small bottles of penicillin to gold buyers located in Emgekchil for a current price of around 2,200 Som per gram. The gold is then traded at higher prices in Bishkek. However, trade relations further along the production chain was not possible to determine during the field research.



Fig. 2: Self-built rotating machines which are filled with iron balls and stones which over several hours are grinded into sands.

Photography: Soulier, 2016

The socio-economic organisation of the chain

The production chain outlined above is embedded in socio-economic networks and hierarchies that have evolved as gold mining became a major source of income for the villages during the last 20-30 years. Informal gold mining is dependent on the existence of various social networks formed mostly on a village-level along friendship and kinship lines, as well as credit, renting and borrowing systems. The groups typically have a leader which might be the person owning a lorry for transport, machines for processing or the one with the most experience. Both expenses and income are carefully accounted for, and divided equally between all members of the group. The necessary funds to pay for the transport of the miners and stones, to buy food products, gas and necessary tools for the period spent at the mining sites, and to rent machines for processing the stones are mostly mobilized through local and informal credits (Fig. 3).

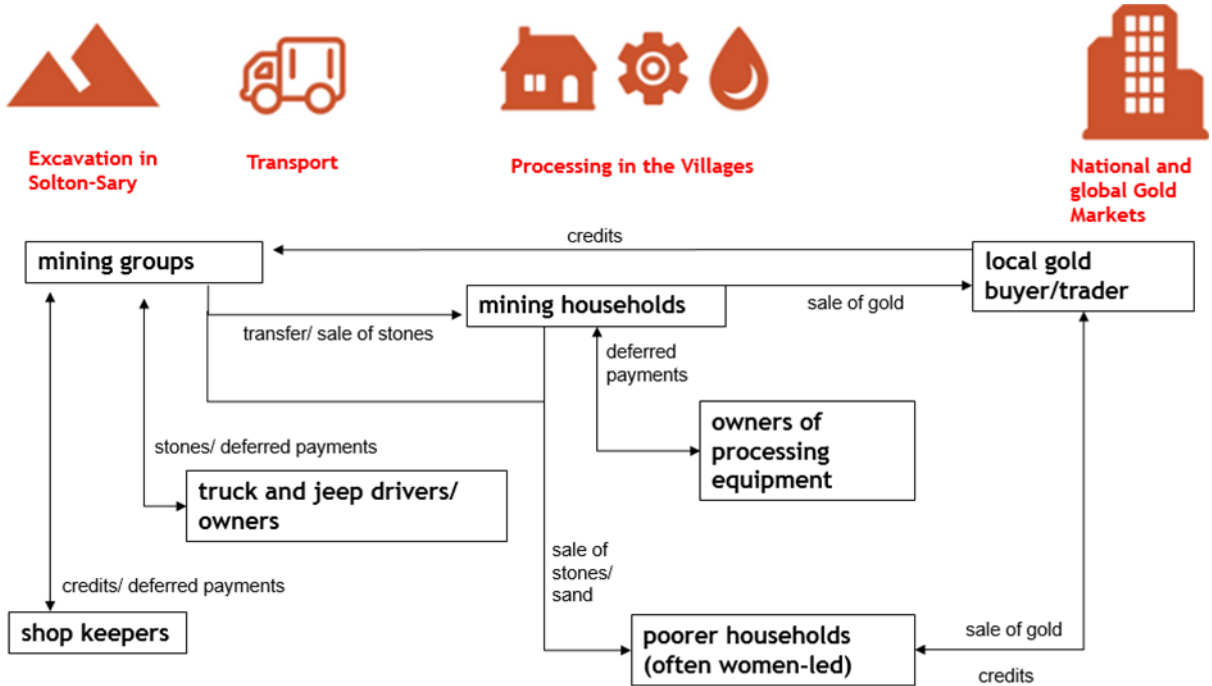


Fig. 3: Diagramme of the commodity chain of artisanal and small-scale gold mining. Design: Soulier, 2017

Individuals and groups borrow the needed food products from local shops, cash from gold traders and pay the owners of processing machines for their usage after they were able to extract and sell their gold. Many of the interviewees, miners as well as shop owners, reported that miners were often not able to settle their debts as they did not find and extract the necessary amounts of gold and thus many are forced to return to the mining sites for several times just to be able to repay what they owe. While local shop owners, owners of processing equipment, lorries and jeeps all profited from the mining industry, it became clear that the buyers/traders of gold, who usually had more financial capital than the average village household, were the main local profiteers. When deducting all necessary expenses from the average gold contained in one bag of stones, the final profit for the small-scale miners (as well as other labourers involved in processing) is likely to be relatively small. However, it seems that working independently and informally in groups might be more profitable than

being employed with one of the mining companies and also gives the advantage of more flexible working periods.

All interviewed households also had livestock and were involved in agriculture to some degree and some had household members employed locally (with mining companies or in other sectors), in Bishkek or abroad. However, small-scale mining was an important or the most important source of income for most households, and it was possible to sustain one's family through the combination of gold mining activities, livestock, agriculture and occasionally some other form of employment. Yet it is important to highlight the insecure nature of income from small-scale gold mining, which was often compared to 'a game of cards' because the gold content and the availability of stones was starkly fluctuating and because of issues arising from the illegalized nature of the work. Most interviewed participants in the chain were highly aware of the prevalent income insecurity and detrimental working conditions, however in the absence of other opportunities to generate income, gold mining was considered an important and durable livelihood strategy.

In order to fully grasp the significance of gold mining and the different labour processes that constitute the production chain, it is worth taking a closer look at the activities taking place further downstream the chain. It becomes clear that gender is one of the main factors structuring labour processes and access to resources. Scholars have found that women (and children) often comprise a high percentage of the labour force in small-scale and artisanal mining (Hentschel, Hruschka & Priester 2002). Far from being homogeneous, the informal mining sector therefore has to be understood as being segmented by social hierarchies where gender is one of the most important structuring forces. In Emgekchil, interviews with several women showed that they are often responsible for processing the stones that their male household members bring back from the mining sites. It should also be taken into consideration that women are often solely responsible for taking care of their families, houses and livestock while the male family members are off excavating stones. Even though women did not go to the mining sites to extract stones themselves (most interviewees considered the work and environmental conditions too hard for women), women-led households are nevertheless involved in the production chain. Many women either buy bags of stones belonging to other miners and process these themselves, or they buy the trashes - sands that have been washed out during the processing - re-wash and then burn them which allows them to still extract small amounts of gold. As many miners use public water taps to wash their sand, some women also use these as free resources and collect sand and dirt around these taps to extract small amounts of gold in order to derive some income for their households, using the most basic processing mechanisms. Interviewed women-led households were clearly the poorest, had only few animals and often had the most precarious working conditions.

The significance of mining companies for local livelihoods

While the original aim of the research was to identify and analyze the significance and socio-economic structures of small-scale and illegalized gold mining activities, it became increasingly evident that state and private mining companies and the employment they

created were also significant for the livelihood strategies of inhabitants of the studied areas. Individuals and households may be involved both in formal and informal mining activities, depending on their respective opportunities and needs that arise at various times. According to the village administration of Emgekchil, about 170 (38 %) of the inhabitants were employed with the state mining company “Kyrgyzaltyn” in Altyn-Tor, Solton-Sary. The company operates a large open-pit mine and a processing plant, while the last processing steps (refining) are not carried out locally but at the Kumtor or Kara-Balta Mining plant, from where the gold then goes to western markets (Abdyrakhmanova, Bogdetsky & Ibraev 2005: 38). In 2017, the company expects to produce 61 kg of gold (Kudryavtseva 2017).

The company operates year-round except from January to March and employs around 300 people. Labourers work twelve hours a day during 15 consecutive days per month in alternating day- and night-shifts. The workers are provided with transport to and from the company, accommodation and necessary facilities at the mining site and three warm and rich meals a day. Salaries range between 9,000-15,000 Som per month and include a wage premium for working in high altitudes. Workers are also able to access free health care while at the mining sites, are insured for injuries sustained while working and are also awarded pensions when reaching the legal age for retirement. However, it seemed that only a few of the inhabitants from Emgekchil worked in higher positions while many were employed as drivers or security personnel. While almost all employees are male, at least two women from Emgekchil were also employed as cooks. Their working conditions and salaries (10,000 Som/month) were similar to those of the male employees, but they reported working for 16-17 hours a day. They also described difficulties of working while having small children as they have to find relatives who are able to care for their families. While there are no companies currently operating in areas administratively belonging to Ming-Bulak village, the company “China Gold” started prospecting and hired six local inhabitants as security guards who earn 15,000 Som for 15 working days per month. One interviewee who is employed with the institute of geology stated that the company would begin excavating the land within the next few years. Interviewees in Emgekchil and Ming-Bulak reported that certain agreements are in place between “China Gold” and other investors and the local administrations, stating that about 70-90 % of all employees should be inhabitants of these villages, if mining activities will begin.

Maybe more significant than employment are the taxes or rents which companies pay yearly to the two Aiyl Okmotu of Emgekchil and Ming-Bulak. “China Gold” pays a yearly sum of 600,000 Som to the Aiyl Okmotu of Ming-Bulak for a certificate allowing them to prospect the area, and this fee will rise substantially if the company will start excavation. The money is reportedly used to buy new agricultural machines for field cultivation and to build a new school. While it was not possible to get accurate information about the amount of taxes annually received by Emgekchil, we have heard about amounts of several million Som by local inhabitants. Further, a cultural centre, a library and a sports centre were reportedly ‘donated’ by various mining companies.

Why Emgekchil? A comparison of livelihood strategies

The main question we attempted to shed light on while conducting research in the communities of Ming-Bulak was why small-scale mining was relatively unimportant there in comparison to Emgekchil. While several interviewees claimed that this was due to the mining deposits being located on Emgekchil's traditional pastures, this was contested by others and did not seem like a plausible answer in itself. It became clear that in order to find an answer, we had to consider and compare the historical socio-economic development of the two villages. By asking the right questions, we found that Emgekchil had historically been economically poorer than Ming-Bulak, meaning that the households there owned less livestock and farm land, and water was scarcer. As one interviewee from Ming-Bulak put it: "We (in Ming-Bulak) always had a lot of livestock. People from Emgekchil used to come and ask us for food. Now, they are richer than us, as one can tell by all the two-story houses that they are building in Emgekchil". Considering, the centrality of livestock to surviving and prospering in the Naryn region, or as Steimann put it: "There is no life without livestock here", inhabitants of Emgekchil had to find alternative means and resources in order to make a living (Steimann 2011: 168). Consulting the registers of the two Aiyi Okmotu, a difference in the average numbers of livestock in the two villages is still apparent: while Ming-Bulak has an average of 4.5 cows and 21.8 sheep per household, Emgekchil still only has an average of 2.6 cows and 15.6 sheep per household. Thus, as the households of Ming-Bulak were able to derive income from their livestock and farmlands, gold mining was one of the only ways to generate monetary income for households in Emgekchil. This could explain why mining is a much more prevalent livelihood activity there, despite the hard working conditions and inherent insecurity. Furthermore, it seemed that knowledge about small-scale gold mining had been retained and accumulated in Emgekchil for over 20 years, while inhabitants of Ming-Bulak only began being involved in these activities during the last five or six years. The accounts seemingly described a development similar to a 'gold rush': when gold prices rose rapidly in 2009, more people became aware of gold mining as a possibility to generate significant income, and many formerly inexperienced men from Ming-Bulak (and the two associated villages Kuisbuishev and Örnök) formed groups and went to the mining sites. However, many interviewees reported that a substantial proportion of small-scale miners from Ming-Bulak became indebted and were not able to derive any substantial profits from gold mining since they lacked the necessary experience and equipment. The number of gold miners thus decreased again over the last two to three years, as only few found the activities profitable. This indicates the importance of social networks, inter-generational knowledge and the access to necessary resources in order to be successful in small-scale gold mining.

Informality and materiality in gold mining

Most scholars analyzing the persistent informality in ASM worldwide highlight the financial, legal, administrative and political barriers that prevent small-scale miners from formalizing their work and from obtaining legal permits to access mining sites (Verbrugge 2015: 1024; Hilson & Maconachie 2017). They are adopting a legalist approach, which sees bureaucracy and obstacles to obtain property rights as main drivers of informality (de Soto 2000). This

approach is equally applicable in the case of Emgekchil and Ming-Bulak, considering that many miners had voiced their wishes for the state to enable them to legalise their work. However, Boris Verbrugge's research allows for a more complex perspective, as he also integrates the structuralist approach into his analysis of ASM, which conceptualizes informalisation "as a long-term systemic process embedded in [...] global capitalism" as well as a product of economic restructuring and crisis. Due to a "crisis of accumulation in the formal economy", cheap, informal labour becomes a main strategy for capitalist regeneration (Verbrugge 2015: 1026). The latter approach not only enables us to see ASM within a global capitalist framework - as a strategy to enable mineral extraction in areas where large-scale capital-intensive mining would not be profitable, but also accounts for the heterogeneity of the informal mining sector. Even if groups of entrepreneurs were able to formalize their mining operations to a certain extent, informality would be likely to persist as a labour practice in the lower echelons of the production chain, as examples from other regions indicate (Verbrugge 2015).

The informal and illegalized nature of ASM in Kyrgyzstan has a decisive impact on the working conditions and socio-economic development of the small-scale gold mining sector. Even though formal mining companies are important for the study areas in terms of employment generation and by contributing to the incomes of the village administrations, they also obstruct and hinder the income generation of small-scale miners. The security personnel employed by the companies and their cooperation with police forces restrict the times and locations for small-scale mining activities. Interviewed miners reported that they are often harassed by both security personnel and the police, who either confiscate their stones or oblige them to pay a fine. The illegalized nature of the work also means that miners cannot install facilities at the mining sites such as proper means of accommodation making their working conditions safer and less precarious. During the processing of the stones, illegality obstructs the implementation of necessary safety regulations and monitoring while the price of gold is also lower than on formal markets.

The materiality of the gold that is extracted, the stones in which it is enclosed and the necessary production processes as well as its sounds and smells have forever been imprinted on the population and landscape of Emgekchil. Impacts of the labour and production processes include but cannot be reduced to working conditions as more profound transformations of ecological, economic and social systems have taken place. Because gold is found best underground, the mountain landscape is slowly transformed both by the small-scale miners and larger companies, and eventually the deposits will be exhausted. The working conditions on the mountain are harsh. Miners live at an altitude of almost 4,000 m above sea level and in temperatures that are often between -30 to -40°C for prolonged periods while carrying bags full of stones which can be as heavy as 90 kg from the underground tunnels to the lorries transporting them to the villages. Back problems, injuries, colds and various illnesses and other bodily reactions to altitude and temperature are reported by the miners. Injuries due to the hazardous condition of the road leading back to the village are also common occurrences. Interviewed inhabitants of Emgekchil report headaches, nosebleeds, teeth that are falling out and hair that turns white early; red eyes of participants in the production chain are a common sight. In Emgekchil, the sounds of the

turning machine drums filled with stones and iron balls and the smell of burned acid saturate the air.

Conclusion

Artisanal and small-scale gold mining is one particular of many livelihood strategies of rural households in the Naryn region. Its prevalence in certain villages, such as Emgekchil, can be traced back to certain localised socio-historical developments and the general absence of adequate and sufficient sources of income in the wake of capitalist expansion, economic restructuring and de-agrarianisation. While formal mining economies are equally important to local livelihoods, these might also contribute to a further illegalisation of informal mining activities potentially prohibiting the rural population from accessing this important natural resource in the future. However, local miners and communities have been successful in circumventing obstacles and legal provisions that aim to prevent them from accessing what they consider their lands. While many households are seemingly able to sustain themselves through their participation in gold mining industries, this should not conceal the precarious working conditions and social hierarchies that are prevalent in this sector.

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4 The Inadequate Drinking Water Supply as a Rural Disadvantage: A Case Study from Kyzyl-Jyldyz Village

Introduction

Kyrgyzstan is one of the poorest countries among the former socialist states of Central Asia. More than 25 years after the dissolution of the Soviet Union, the consequences of political, economic and social transformations have a remarkable effect on the people's lives. With the decline of transfer services and subsidies facilitated through the Soviet system, the economic situation of private households worsened drastically after independence in 1991 (Schmidt 2006: 18). Households had to adapt their livelihood strategies in independent Kyrgyzstan. In most cases, this resulted in attempts at diversification of income sources in order to cope with the new uncertainties, compounded by increasingly dysfunctional public utilities (Rost et al. 2015: 866). This resulted in an overall deterioration of living standards, with rural populations being more affected than urban dwellers. This can be exemplified by looking at the situation of access to safe drinking water, which in rural Kyrgyzstan poses an ongoing problem. While access to safe drinking water is considered a human right and a long-standing development goal, 70 % of the country's water supply networks are in need of repair or replacement. Most of the water obtained in rural areas is surface water, making its users vulnerable to catch diseases and leading to overall unsatisfying living conditions (UN 2009: 16). Against this background, the present study looks at the means and strategies of accessing rural drinking water with the aim to shed light on the interlinked problems for rural dwellers in Kyrgyzstan. The argument is based on a case study in the settlement of Kyzyl-Jyldyz located in Naryn Oblast', and its interrogation based on the following research questions: What is the shape of current livelihood strategies of the rural dwellers? How do rural households supply themselves with drinking water and what problems arise from the lack of functioning water infrastructures? By attempting to provide answers to these questions, the problems of implementing a functional drinking-water supply system will be highlighted in the contexts of prevalent government activities and community mobilisation in Kyzyl-Jyldyz.

Access to clean drinking water within the global development agenda

Universal access to safe drinking water is a long-standing development goal codified by the New Delhi Statement from the Global Consultation on Safe Water and Sanitation held in 1990. In the statement adopted by participants from 115 countries, it is proclaimed that "Access to water and sanitation [is] not simply a technical issue; it is a crucial component of social and economic development. Sustainable and socially acceptable services can be extended by using appropriate technologies, adopting community management and enhancing human resources. Political commitment is essential and must be accompanied by intensive efforts to raise awareness through communication and mobilization of all sections of society" (UN 1990: 2). Ten years later, the Millennium Declaration of the United Nations integrated access to safe water in the Millennium Development Goals as Target 7.C: "Halve,

by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation". According to the United Nations, this target has been met five years ahead of schedule. However, targets that are more ambitious have been set in the framework of 'Sustainable Development Goals': "By 2030, achieve universal and equitable access to safe and affordable drinking water for all". In 2015, an estimated number of 663 million people, i.e. about 9 % of the world population, still need to use unimproved water sources or surface water. Moreover, it has to be considered that not all sources classified as 'improved' are also safe, as it was also estimated that in 2012 at least 1.8 billion people had to satisfy their demand for drinking water from sources contaminated with faecal matter (UN 2016: 10).

Insufficient supply with drinking water as an 'urban bias'

Supply with adequate drinking water is globally characterised by an 'urban bias'. Bain et al. (2014) show that there exist profound inequalities in terms of access to drinking water between rural and urban areas. These inequalities are reproduced through global development agendas focusing on cities. Even though the proportion of people in rural areas with an access to improved drinking water sources has significantly increased since 1990 from 62 % to 84 % in 2015, it is still substantially lower than in urban areas where the proportion is stagnating at around 96 % (UNICEF/WHO 2015: 17). However, during this period the global urban population grew six times faster than the rural population. This means that within 25 years around 1.5 billion people gained access to improved sources of drinking water in urban areas, while in rural areas one billion people were able to establish access (Bain et al. 2014: 510-511). Further, the classification of improved and unimproved access used to guide the implementation of the UN-targets and their monitoring does not comprise dimensions like water quality, affordability, reliability and sustainability (Clasen 2012: 1178; Shaheed et al. 2014: 283). 'Access' is also an elastic term potentially concealing rural-urban inequalities. About 79 % of urban dwellers worldwide have access to piped drinking water in their houses, but this is the case only for 33% of rural dwellers do (Bain et al. 2014: 510; UNICEF/WHO 2015: 17). Time allocation for the collection of water in rural household is therefore subject of several academic inquiries, because it has an impact on the use of time available for reproductive and productive work activities, especially for female household members (Koolwal & Van De Walle 2010; Ilahi & Grimard 2000). Because of missing access to adequate water infrastructure certain reproductive chores, such as washing dishes or cleaning the home, become more laborious and are more time intensive (Meeks 2012: 21). Generally, the quantity of water used by a household is linked to the amount of time needed to collect it (Cairncross & Cuff 1987: 51).

Drinking water scarcity in rural Kyrgyzstan

In spite of its large freshwater resources, Kyrgyzstan faces challenges in supplying its rural population with potable water (Isabekova et al. 2013: 2). Undoubtedly, this related to the fact that most parts of the drinking water infrastructure in Kyrgyzstan was built 40 to 50 years ago. Under Soviet rule, the agricultural farms, namely *kolkhozy* and *sovkhozy*, were responsible to operate the water supply systems in rural areas. Local people were usually not involved in the construction, maintenance or repair works and the supply was free of charge (Topbaev 2015: 14). With the collapse of the Soviet Union, however, the

responsibility for water supply systems were transferred to the local governments, the Aiyi Okmotu, which had neither the expertise nor the funds to keep them in an adequate condition (ADB 2012: 1).

Nevertheless, Kyrgyzstan is the only former Central Asian Soviet Republic meeting the Millennium Drinking Water Target by 2015. Between 1990 and 2015, the population's access to safe drinking water improved from 75 % to 90 % (UNICEF/WHO 2015: 65). However, such aggregated numbers conceal regional disparities and differences in water quality (World Bank 2015: 6).

When looking at the data from the Joint Monitoring Programme of the WHO and UNICEF, the 'urban bias' clean drinking water supply in Kyrgyzstan becomes evident. 97 % of the urban population has access to an improved water source, of which 88 % are piped outside the premises. In rural areas, 86 % of the population was classified as having access to an improved source, but only 42 % have it piped onto their premises. Moreover, approximately 10 % of the rural population still use surface water for their supply of drinking water (UNICEF/WHO 2015: 65).

There exist altogether 1,074 centralised water supply systems in the country, mostly relying on access to groundwater but as many as 133 supply systems are fed by surface water alone. Poor condition of these systems lead to water losses between 20 % and 50 % (UN 2013: 104). According to the Ministry of Agriculture and Melioration, about 11 % of the existing drinking water resources do not meet sanitation and hygiene requirements while in nearly 30 % of rural settlements there exists no centralised water supply system at all (Department of Water Management and Melioration 2013: 12).

The resultant insufficient drinking water quality in combination with poor sanitation in rural areas causes a high rate of dangerous gastrointestinal infections, such as typhoid fever, paratyphoid fever, bacillary dysentery and hepatitis A, particularly among children (Department of Water Management and Melioration 2013: 13; UN 2013: 104).

The government of Kyrgyzstan has certainly acknowledged the poor situation in terms of access to clean and potable water in rural areas but is still struggling to mitigate the problem. For example, Kyrgyzstan's 'Law on drinking Water' which was adopted in 1999 states that when communities are organizing themselves in order to receive a water supply network the state is required to build and put into operation such infrastructure in the course of three years. However, in reality this legal proposition is widely ignored. The Aiyi Okmotu as the self-financed and decentralized state body is in charge of practically implementing the Law on Drinking Water in its area of administration, but the needed financial support from the central government is more often than not insufficient, even to maintain already existing supply networks (UN 2013: 105). Likewise, in contexts of rural unemployment and hardship the capacity of people to pay for water supply services is very limited. They need to pay for services of much lower quality when compared to the free high quality supply during the Soviet era. Increasing tariffs for poor service often lead to problems, even though the average expenditures on rural water supply were estimated as only 0.4 % of available household incomes (ADB 2012: 2; Department of Water Management and Melioration 2013: 13).

In 2002, the Kyrgyz government started to put more effort into improving the water situation in rural areas. This needs to be seen in contexts of development assistance, such as provided by the International Development Association of the World Bank and the United Kingdom's Department for International Development who jointly implemented a 'Rural water supply and sanitation' project. Also, the Asian Development Bank financed a project on 'Provision of infrastructure services at the locality level' (UN 2013: 105). These donor-driven projects are better known under the name 'Taza Suu', i.e. 'clean water'. One essential goal of the project was to establish 'Community Drinking Water Unions' as new democratic institutions responsible for the supply with potable water on the village level (World Bank 2015: 6). The Taza Suu initiative was implemented in about one fourth of all rural settlements in Kyrgyzstan, while the Aiyl Okmotu continued to function as the responsible institution in the remaining majority of rural settlements (Topbaev 2015: 62). By the end of 2007, water supply systems had been built or rehabilitated in 367 settlements, reaching a population of 614,000 people. However, the achievements of the project stayed far behind its initial aim to implement functioning infrastructures in 730 settlements. The project implementation was accompanied by many difficulties. Kyrgyz NGOs criticized the expensive yet inappropriate or poor quality construction-material that was used. An internal investigation by the Asian Development Bank itself concluded that there was large evidence of corruption and fraud, which led to a shutdown of the project (Isabekova et al. 2013: 4-5). Altogether, 101 million USD were allocated for the 'Taza Suu' programme that achieved some progress in the rural water sector, but also revealed persistent problems, such as weak sector governance and ineffective service provision (Asian Development Bank 2012: 1).

Methodology

In light of the questions guiding our research we examined both how rural dwellers deal with the drinking water problem at a household level, and collectively within the settlement. We applied a combination of social science research methods. During two weeks of field research, we performed 32 semi-structured interviews with members of 25 rural households, representing about 10 % of all households in Kyzyl-Jyldyz. The sample included households of every social status. In addition to the interviews, we investigated the functioning of social institutions in the settlement. Interviews were carried out with the mayor (Aiyl Bashy) and the chairwomen of the women's association of Kyzyl-Jyldyz, the nurses at the medical station, the head of the village club house, the director of the kindergarten and with school teachers and shopkeepers. Informal conversations and street observations formed another important part of the research design, as well as mapping and photographic documentation of the rural village setting.

The settlement of Kyzyl-Jyldyz: An introduction

The settlement of Kyzyl-Jyldyz is located 26 kilometres north of Naryn Town., located at an altitude of 2,150 m a.s.l. in the fluvial valley of the On Archa River. Together with the hamlets of Jalgyz Terek and Jergetal, it forms the rural municipality of Jergetal. Kyzyl-

Jyldyz is the Kyrgyz translation of the former collective farm “Red Star” that operated during Soviet times. Visible traces of the Soviet era are found at the “entrance” of the village where a signboard still welcomes every visitor. Even though Kyzyl-Jyldyz is still the official name used on maps, documents and passports, all residents of the village prefer the original name Kara Chii (Black Hay) and refer to their settlement accordingly.

The settlement consists of 260 households and has a population of approximately 1,300 people; statistically that leads to an average household size of five persons. Looking at the settlement’s structure, the Soviet legacy becomes apparent. In the village centre the kindergarten, the school, the medical station and the clubhouse containing a theatre with 150 seats and a small library can be found, making Kyzyl-Jyldyz an exemplary planned settlement from the Soviet era. The village mosque was built eleven years ago with financial support from Saudi Arabia and is nowadays an important meeting place for (male) dwellers. Wide agricultural fields are located in the immediate surroundings of the built-up area, representing a sizeable and important part of the settlement. In a majority of cases, these fields are used as hay meadows. In September 2015, a project implemented by the Aga Khan Foundation aimed at the improvement and extension of the agricultural irrigation system and expanded the total irrigated area of the village to 278 hectares.

Current livelihood status of the dwellers

The livelihood approach is a human-centred approach and looks at individual households in order to assess their objectives and capabilities. The approach intends to highlight the proactive role of households and individuals in shaping their livelihood situations rather than seeing them as passive victims of structural frame conditions (De Haan & Zoomers 2005: 28). The collapse of the Soviet Union and the subsequent redetermination of the political and economic system as well as the radical change in property rights in the aftermath of 1991 has to be taken into account to understand current livelihoods in rural Kyrgyz contexts. There is a broad agreement that rampant privatisation, a lack of subsidies and neoliberal reform policies had and continue to have varied effects on people’s livelihoods in Kyrgyzstan (Steimann 2011: 28). In the past as well as today, mixed mountain agriculture combining animal husbandry with crop cultivation is a central pillar of rural livelihoods in Kyzyl-Jyldyz. A detailed insight into the livelihoods of the households of Kyzyl-Jyldyz is essential to understand the challenges and opportunities for the implementation of a drinking water supply system in the village.

Concerning the population structure in Kyzyl-Jyldyz in 2016, the number of children under 14 years was 370, 146 residents were retired and only 56 dwellers were engaged in off-farm labour and could draw a salary from the state. Those people were teachers, nurses, kindergarten teachers or occupied in the village administration. Many of the remaining 721 people described themselves as farmers or being jobless. These numbers underline that access to paid non-agricultural employment is still very difficult. This circumstance makes subsistence farming linked with animal husbandry essential to make a living in Kyzyl-Jyldyz. Therefore, access to arable land, pastures and livestock is a crucial point for many people’s well-being. There are only six tractors in the village, and the lack of mechanisation makes agricultural labour time consuming and often requires work of the entire household. During the summer, farmers spend every day on the fields to harvest their crops as well as to help

their kin with these tasks. That is why on some days the settlement seems almost empty, and farmers on their ways to the fields told us: "If you want to see how we really live you have to come to the fields". Nevertheless, many households rely on various different sources of income such as transportation, small retail shops and pensions. Furthermore, remittances from family members in other places have an important impact on the financial situation of most households and hence livelihoods become multi-local.

Livestock

Livestock is an essential component of the livelihood strategies of rural households in Kyzyl-Jyldyz. Animal husbandry can have a variety of favourable impacts. On the one hand, meat, dairy-products and wool secure a degree of self-sufficiency for many households. Even dried animal faeces are used as heating material (Güng) during the winter. On the other hand, as most families have no access to a permanent monetary income, livestock can be sold and consequently be used as a source of financial income at any time. Beyond the commodification of animals for self-sufficiency and financial income, livestock is used to maintain social bonds between and within families. Depending on the closeness of the kin relationship (cows or horses for close relations and sheep or goats for distant relations), relatives are gifted at funerals, birthdays or weddings.

The official numbers given from the Aiy! Bashy of Kyzyl-Jyldyz in 2016 point out that residents own a total of 609 cows, 4,364 sheep, 1,470 goats, 449 horses and 75 donkeys. As such, sheep and goats are the most important livestock in the village.

Arable land

In our study sample it is evident that there is an interrelation between landownership and flock size as well as over-all well-being. Four of the five households identified as large farmers owned between three and five hectares of land. Most of the smallholders owned less than one hectare and only very few were landless. Only one case was observed where land was leased from a relative. A possible explanation for these disparities in ownership of land could be found in the proceedings of privatisation and distribution of former *kolkhoz* property, as well as the subsequent modes of heritage (Steimann 2011: 80). Independent of size, land was mainly used to grow grass and barley to assure fodder for private livestock. In cases where households owned comparatively large areas of land but only a low number of livestock they were able to sell their surplus grass within the settlement.

Apart from stratified landownership all households make use of small private gardens for growing vegetables for private consumption, mostly potatoes but also carrots, onions, garlic and beets. These products are harvested through household labour and stored in big holes in the ground for conservation. Harvests can be stored and might suffice for a whole year, making people almost self-sufficient. In most cases, vegetables and primarily potatoes will also be distributed within the wider family living outside Kyzyl-Jyldyz, especially to children studying in Bishkek.

The broad engagement in agriculture shows that water is abundant for animal husbandry and crop cultivation but due to its insufficient quality it is not usable as drinking-water.

Financial incomes

Throughout this study it became clear that the post-Soviet transformation with its radical reconstruction of all political and economic spheres and subsequent massive unemployment shaped the livelihoods of rural dwellers in Kyzyl-Jyldyz. The previous chapters showed that somehow every household is engaged in agriculture yet with varying degrees of success. This results in a diversification of livelihood strategies. The village dwellers thus consider different ways to obtain financial income in order to sustain their households.

The highest wage that could be found during our field research was 19,000 Som per month, a salary drawn as head of the kindergarten, which should be seen as exception rather than the rule. Teachers in Kyzyl-Jyldyz could earn between 8,000 to 10,000 Som per month. The interviewed nurses earned between 9,300 and 10,500 Som per month from their work in the medical station. The salary of the Aiyl Bashy was comparatively low with 7,500 Som. None of the interviewed households reported that they sustained themselves through regular salaried jobs alone, as this would not suffice to make a living.

Social support in the form of child allowances, old age or disability pensions and remittances from family members play an important role for the majority of the studied households. Pensions and child allowances as forms of governmental support are calculated individually for each family depending on their respective land ownership, number of children, financial incomes etc. and varied from 5,000 Som to 6,800 Som.

Selling agricultural produce and the sale of animals in particular, is used by almost every household as source of financial income, which can amount up to 200,000 KGS a year. On rare occasions dairy products, vegetables (esp. potatoes) and hay was sold within the settlement and on local markets. Farming in the latter sense is not a significant form of financial income. Some respondents considered themselves businesspersons since they made money with transportation services (mostly bringing livestock to the markets). As owners of a car, truck or tractor these people seemed to have various opportunities to improve their financial situation. The interviews with three of the rural shopkeepers showed that incomes from small retailing amounted to up to 6,000 Som a month. The mentioned widespread subsistence farming make most families almost self-sufficient. As such, groceries that have to be purchased are limited to flour, oil, sugar, salt, tea and fruits to make compote. These products are generally not purchased in the shops of Kyzyl-Jyldyz as prices are lower in Naryn city or other places, and thus shop keeping becomes a business of limited lucrativeness.

Altogether, purchasing power among rural dwellers remains low and people did not become powerful market participants yet (Steimann 2011: 215). Since a drinking-water supply system is a rather costly project that often needs co-payment, the difficult monetary situation of most households could form an obstacle for implementation.

The inadequate drinking water supply in Kyzyl-Jyldyz

The current situation in the settlement

“This is the worst village in the whole of Kyrgyzstan” one resident stated right at the beginning of our field research. It turned out that the man was referring to the conditions of the local drinking water supply. In contrast to the majority of rural settlements in Kyrgyzstan a subsurface water supply network is completely missing in Kyzyl-Jyldyz.

Therefore, one will search in vain for the typical standpipes by the wayside that are common in other rural places within the region. Only in the northeastern part of Kyzyl-Jyldyz there is one hand-operated standpipe which was functional during our field visit and is also marked in the map (Fig. 1), and shown in the picture (Fig. 2).

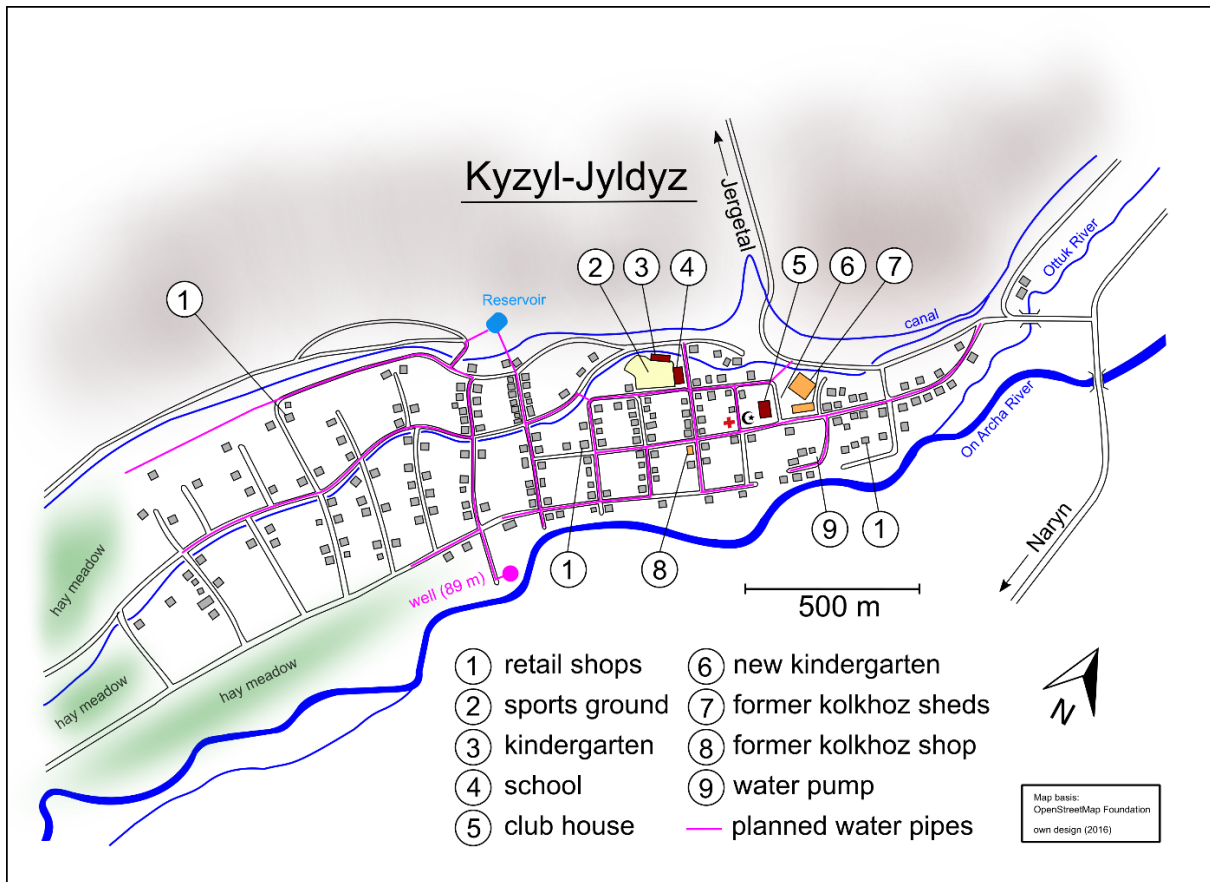


Fig. 1: Map of the settlement of Kyzyl-Jyldyz. Design: Stabler & Schubert, 2017

However, only a few households situated closeby seemed to use it regularly. Furthermore, interviewees explained that the quality of the water from this pump is not satisfactory and that it is usually out of order during the winter. According to the results of our household level survey, the majority of the residents use open surface water as their source for drinking water for most of the year. This surface water comes either from the On Archa River or the irrigation canals which are fed by the small river Ottuk. The river Ottuk flows into the On Archa River at the north-eastern end of Kyzyl-Jyldyz. The On Archa River, a tributary of the Naryn River, originates in a mountain range about 30 km north-east from the settlement out of the small rivers Solton Sary and K k-Torpok. Especially in springtime, the water from the river has too much suspension, which means that people are more likely to take on long distances in order to collect water. Since the settlement extends over 4.5 kilometres it depends on where the individual household is located if the water is either fetched from the standpipe in On Archa, a place situated outside the settlement in south-western direction, or in the north-eastern part of Kyzyl-Jyldyz. In these cases, mostly handcarts or donkeys are used for the transportation. A woman from the northeastern part of Kyzyl-Jyldyz stated that in her area, people usually do not own a donkey since they live close to the standpipe but people living remotely are more likely to have one.

There were also cases observed where a car is used for fetching water. For example, one resident stated that he would drive five kilometres to On Archa or six kilometres to the neighbouring settlement of Echki-Bashi. Moreover, it turned out that people who are using their own car to go to Naryn Town regularly take the opportunity to bring tap water in jerrycans from their relatives in the city. However, most of the year the majority of the residents relies on the surface water from the river or the canals. Members of each household do two to four round trips a day to fetch water. According to our survey, in most households the responsibility for fetching water seemed to lie with men.



Fig. 2: Hand-operated standpipe in the north-eastern part of Kyzyl-Jyldyz.

Photography: Schubert, 2016

Nevertheless, we noticed during our observation on the streets that also older children, mostly boys, were hauling fresh water. In general, there are no specific practices for water purification. Most of the observed households just let the water sink for several hours until the suspended load remains as residue on the ground before they consume it directly or use it for other purposes such as cooking, serving tea or washing. The virtually non-existing access to adequate drinking water in the entire settlement has its consequences on the health of the residents. According to the statements of the nurses in the medical station of Kyzyl-Jyldyz, about 70% of their patients have health problems that can be attributed to the consumption of impure water. In most cases, these persons are suffering from gastrointestinal infections that result in diarrhoea and fever but also skin rash. Especially in spring and summer, the morbidity of these diseases is high. Since 2016, the United States Agency for International Development (USAID) is offering training courses for medical staff locally but also in Naryn Town dealing with hypertension, which is in the case of Kyzyl-Jyldyz only the second biggest health issue. Since there is just basic medical treatment on site, patients are often referred to Naryn Town and sometimes to Bishkek. Due to the bad drinking water quality no hot lunch is served for the approximately 360 students at the school of Kyzyl-Jyldyz, unlike in most Kyrgyz schools. Instead, only bread, marmalade and Kefir are provided. During our household level interviews it became clear that without exception people see the inadequate or rather non-existing supply with potable water as the biggest disadvantage of life in the settlement. Certainly, among older persons there seems to be a bigger acceptance of the issue since they are used to the situation for many decades. It also turned out that the information people have about the ongoing planning process of a water supply network varies, which also leads to different assessments of its success. Some of the interviewees were clearly optimistic that the project will be implemented in the following year whereas others resigned and did not believe in an imminent improvement of the situation.

An attempt under the Soviet system

Unlike in most of the rural settlements in Kyrgyzstan, no water supply system has been built during the 1960s or 1970s in Kyzyl-Jyldyz, when it used to be a *kolkhoz*. Only just before the end of the Soviet era some effort was made. From 1990 to 1991 building operations took place in Kyzyl-Jyldyz. The plan was to pump groundwater from a well close by the river up into a reservoir that would feed a piping network providing three standpipes with water in each crossroads of the settlement. However, the project's implementation supposedly failed because the pump was too weak to channel the water across the distance from the well to the reservoir that goes uphill. During the change of the political and economic system in the early 1990s, no progress was made to solve the problem. On the contrary, local people took the opportunity to illegally sell the still unused building material including the standpipes to Chinese traders. Therefore, the establishment of a water supply system in Kyzyl-Jyldyz went into far distance.

The progress towards a water supply network in the post-Soviet era

Due to the ongoing lack of an adequate supply with drinking water, a user group was founded by residents which consists of 15 participants who are all representatives of the different 'tribes' living in Kyzyl-Jyldyz. This group managed to submit a project proposal to the Community Development and Investment Agency of the Kyrgyz Republic (ARIS) in 2013. According to the statements of the head of the village and the chairwoman of Jergetal Aiyl Okmotu the project is fully planned. Each household of Kyzyl-Jyldyz had to contribute 1.000 Som to the planning costs. The plan includes a supply network that will provide water access on premises for the majority of the households. From the documents provided by the Aiyl Bashy, we could learn where it is planned to erect the subsurface pipes and added this information to the map (Fig. 1). The estimated costs for the whole project would amount to 64 million Som, which equals to almost one million US Dollars. Not least because the well has to be drilled deep, the project turned out to be relatively cost-intensive. There already exists a twelve metres deep well close by the river in the western part of the settlement (see Fig. 1). However, laboratory samples have shown that the water from it is bacterially contaminated. Since Kyzyl-Jyldyz has no sewerage system, the common sanitation facilities are pit latrines in the gardens. Therefore, the groundwater is likely to be impure until a certain soil depth. It was assumed that the well that will feed the drinking water supply network should reach a depth of 89 metres. For the last four years the Aiyl Okmotu of Jergetal as the body in charge for the water supply requested the funding of the project from the Department of Water Management and Melioration of the Kyrgyz government. Up to our field visit in July 2016 this remained a futile attempt. The Aiyl Okmotu itself, which has a fiscal revenue of 2.8 million Som annually, does not even closely have the financial means to implement such a comprehensive project. Moreover, in the main municipal settlement of Jergetal only about 35 % of the 3,200 residents are provided with adequate drinking water. In Jalgyz-Terek, the third settlement within the municipality, access to drinking water is provided everyday between 9 am and 3 pm only.

Conclusion

In terms of the supply with clean drinking water, our case study represents a drastic example. It has shown the failure of the decentralisation process in coping with the provision of basic public services. Even though the community administration, the Aiyi Okmotu, is the responsible body for providing the residents with potable water, it simply has neither the financial nor the technical capacity to act. Other examples show that even the maintenance of already existing supply networks overcharges the local state bodies (Rost et al. 2015). Simultaneously, the government in Bishkek does not meet its legal obligation, which delays the process to an indefinite period. In the case of Kyzyl-Jyldyz, it is hard to determine a leading cause of the ongoing deficit. Different projects for the communities' development, for example the construction for the new kindergarten for 17 million KGS this year, have been implemented successfully. However, the construction of a supply network is comparatively expensive since almost one million US Dollars have to be allocated to facilitate access to clean drinking water. Assuredly, the adverse geographical circumstances contribute to the difficulty of the realisation, a fact that also explains the failure of potential attempts during the Soviet era. The necessity of this investment remains nevertheless crucial, since the residents of Kyzyl-Jyldyz invariably see this issue as the biggest obstacle in their daily lives. In light of the Millennium Development Goals the complete lack of clean drinking in the village water remains also problematic, even though this agenda more generally fails to sufficiently address the rural-urban inequalities (Bain et al. 2014). Finally, it must be noted that the inadequate supply with potable water is only one out of several disadvantages for the lives of rural dwellers in Kyzyl-Jyldyz. The insufficient supply with medication, small wages, and the narrow range of locally available job opportunities, supply with goods and the lack of infrastructure are further cases in point.

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5 Sustainability of Post-Soviet Water Management in Jan-Bulak Village

Introduction

Irrigation and freshwater supply in the area of the so called “water tower of Central Asia” (Sorg et al. 2012: 725) - the Tian Shan Mountains - is shifting because climate change is adversely affecting the cryosphere in high mountain regions in the Central Asian newly independent states. However, not only physical geoscientific phenomena are changing the relation between humans and nature. Since the demise of the USSR in 1991, the water allocation itself has undergone dramatic transformation from governmental to private use and administration (Abdullaev & Rakhmatullaev 2015: 857-858; Rost et al. 2015: 863).

For human and physical geoscientists all over the world adaption to the consequences of global change for humanity and nature will be one of the greatest challenges of the 21st century. Exploring, analyzing, understanding, and organizing this issue is already one of the main topics of many academics worldwide, in order to preserve natural as well as anthropogenic cultural spaces. Water scarcity therefore is one of many aspects that have been explored and analyzed by scientists in order to understand how social and ecological systems are working reciprocally in countries in the Global South and North.

Hence, it was possible to deduce how scarcities of resources arise and how resource users, governments and further stakeholders are dealing with these phenomena in order to achieve, implement, and enhance sustainability (Basurto et al. 2013: 1366-1378). Nevertheless, in order to realize this deduction it is necessary to know what so-called ‘sustainabilities’ are, according to science (Ostrom 2009: 420-421).

For this purpose, a general definition of this concept shall be worked out in the following: In mainstream geoscientific literature the term sustainability in the field of ecology is defined as the

“preservation and at the same time continuous and optimal use of a resource in the environment of humans for the benefit of current and future generations” (Leser et al. 2011: 593).

In this paper, we want to extend the understanding of sustainability in order to realize and achieve a more holistic scientific approach. Proponents of the field of critical resource geography say that the common definition of sustainability might be interpreted as a reason for Northern economic hegemony facilitated by neoliberal practices, e.g. ‘rolled out’ by global institutions (such as the World Bank) with the (apparent) power to impose their will on whole countries (Castree 2006: 4). Therefore, the role of power, knowledge, ethnicity, class, and gender as concepts have to be considered in the concept of sustainability in order to achieve a more holistic approach (Castree 2006: 3-4; Lawhon & Murphy 2011: 364).

In the context of resource scarcity related to sustainability, self-organisation is also playing a key role especially when the users are highly dependent on resources becoming scarcer. In addition, if the resource use is not the subject of the government or any other superior

administrative unit, self-organisation becomes even more necessary to assure an adopted, fair and sustainable use of scant resources.

In light of this assessment, the present paper focuses on answering the following research question: “How far is self-organisation and sustainability regarding the water management and irrigation patterns in the former soviet *kolkhoz* of Jan-Bulak, Naryn Oblast’, already implemented and where is some future potential?”

The general framework of Social Ecological Systems (SES) by Elinor Ostrom will be applied to analyze field research data that was gathered in July 2016.

The general framework of social ecological systems for analyzing sustainability

“The world is currently threatened by considerable damage to or losses of many natural resources, including fisheries, lakes, and forests, as well as experiencing major reductions in biodiversity and the threat of massive climatic change” (Ostrom 2009: 419).

This overuse of natural resources has always been a challenge for different stakeholders who directly or indirectly depend on the respective resource. For this reason, sustainable management of water, soil, forests or livestock is extremely important to realize natural resource justice and to diminish and prevent (neo-) extractivism and exploitation.

Due to Elinor Ostroms framework of coupled SES, it is possible to depict, elucidate and evaluate complex short- and long -term interactions of energy, material and information flow between the anthroposphere and the geosphere. Hence, SES is a scientific approach that tries to promote and contribute new strategies for transformation in order to implement a more sustainable management of natural resources (Ostrom 2009: 419). Moreover, this concept is based on many empirical case studies within which the idea of SES was developed (Basruto et al. 2013: 1366-1378; Scholz & Brand 2011: 509).

The framework of SES contains four core subsystems. Resource Systems (RS) (e.g. water systems); Resource Units (RU) (e.g. the amount and flow of water or crops); Governance System (GS) (e.g. the set of rules, monitoring and administration created by governments and/or non-governmental organisations (NGO) for implementation); and Users (U) (e.g. inhabitants who are using a resource for sustenance or for commercial purpose).

These four core subsystems are connected by Interactions (I) between each other and also affected by Outcomes (O), which are influenced by I. Among RS and RU as well as GS and U mutual interactions exist. However, the subsystems of RS, RU, GS and U with its I and O as a whole system is nevertheless further affected by social, economic and political settings (S) and related ecosystems (ECO). These interactions are also reciprocal. A more detailed view of the respective subsystems of the framework reveals many different second-level variables (Fig. 1).

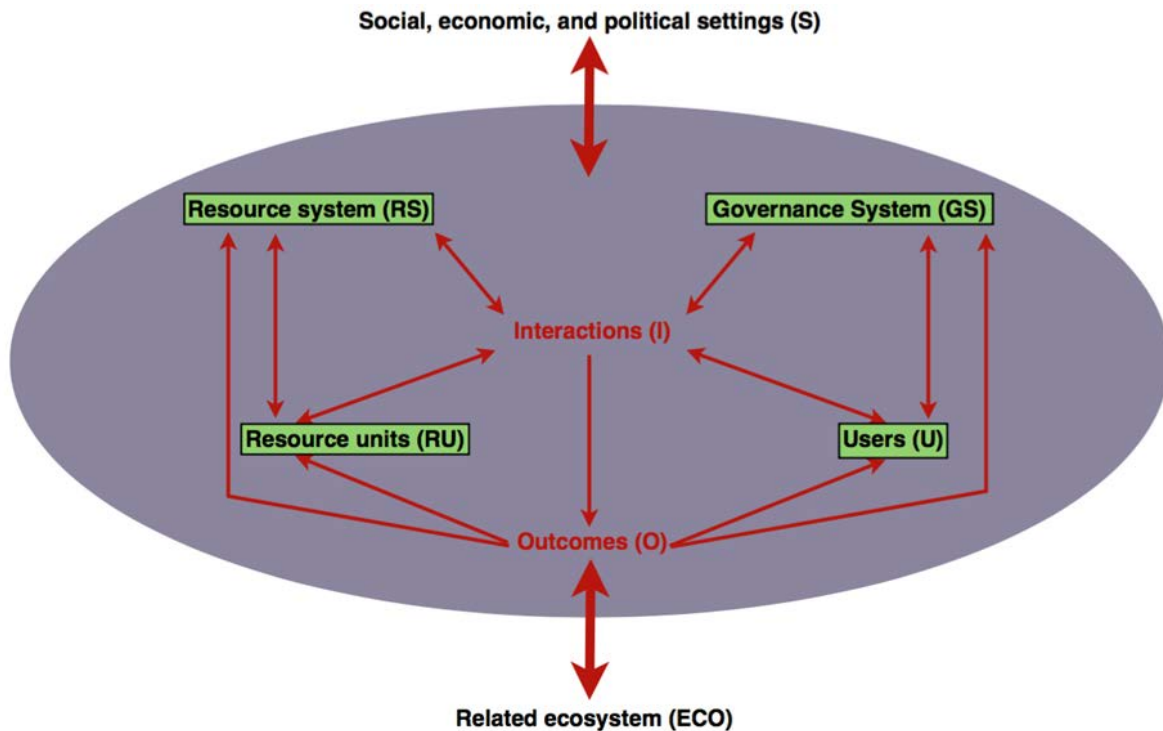


Fig. 1: The framework of Social Ecological Systems for analysing sustainability.
Design: Marx 2017 based on Ostrom 2009

According to Ostrom (2009), ten second-level variables derived from many years of empirical research on SES from field researchers are critical for analysis (cf. Baland & Platteau 2007: 276; Basurto et al. 2013). These key variables act as a positive or negative factor on the behaviour of the self-organized management of U. According to this long-term empirical knowledge, the size of a resource system (RS3) is an important indication. This means that self-organisation depends on the definition of boundaries.

For example, costs of administration and organisation are rising if the size of a RS is very extensive, because monitoring and continuation of regulations become more difficult (Baland & Platteau 2007: 321-324). Likewise, small RS do not generate adequate amounts of good. As a consequence, RS have to be moderate in their territorial size to obtain a manageable self-organisation. Nevertheless, an RS also has to have attributes of scarcity, which concerns the productivity of an RS (RS5). Therefore, U will only start to self-organize if a resource such as water in a canal- or river-system should neither be exhausted nor be existent in large quantities. Scarcity and the danger of a less productive RS are, in this context, a corresponding variable of why U realize self-organisation (Wade 1994: 1, 12-13). Another important aspect is the predictability of the dynamics of an RS (RS7): The adjustments of guidelines may influence a SES, whereby water systems, due to their dependency of several factors, are more difficult to predict. One of these factors is resource unit mobility (RU1), because expenses of a moveable resource, e.g. water, are more difficult to administrate than fixed objects like water in a lake. Focused on the subsystem of U, five variables are pointed out: The number of users (U1) as well as the respective leadership (U3), norms/social capital (U4), knowledge of the SES (U5) and the importance and dependency of a resource to users (U6). U1 means that costs of administration are higher if the quantity of organisation-members who are using a resource is high because consensus-

based adjustments and changes are more challenging to realize in larger groups (Baland & Platteau 2007: 298-299; Wade 1994: 15). Nevertheless, Ostrom says that even if the group size is important, self-organisation still “depends on other SES variables and the types of management tasks envisioned” (2009: 421). As a result, U3 might influence U1. A good leadership, for example, can enable self-organisation without the higher number of users will have negative effects on it. U3 might be also influenced if some people of an organisation have entrepreneurial abilities or if graduates from university and/or a parliamentary advisory committee are involved in decision-making processes (Baland & Platteau 2007: 339-340, 342). Accordingly, the variables of U4 are also not to be scoffed for a well-functioning self-organisation. Ethical standards, moral and social competence as well as trust in each other are still extremely important to reduce expenses of self-organisation, which also means that rules have to be respected by every single person. As a result, it is logical that rules and agreements can only be kept if resource users create their own regulations due to collective choice-rules (GS4) (Berkes et al. 2006: 1557). In such a case following the rules is more likely. U5, which means that users understand, comprehend and are aware of the four subsystems RS, RU, U and GS, is another decisive factor (Gadgil, Hemam & Reddy 1998: 44-45). This also means users should know particular variables and characteristics of the subsystems and their interactions and implications such as the regeneration capacity of a resource or general information about their own population as well as ecological and physical knowledge. Subsequently U6 is a further key variable. This variable is defined due to dependency especially if resources, such as water, soil or crop plants are eminent to users’ livelihoods. In long-term development this in turn implies that efforts of self-organisation rise if users do not deal sustainably with the RS, as the scarcity of common resources will probably increase. Even if these ten key variables are meant to be the most important factors for analyzing self-organisation, other aspects such as storage characteristics (RS8), NGOs (GS2), history of use (U2) or conflicts among users (I2) as well as the ECO, S and O with its single variables might be, depending on the respective SES, further eminent (Ostrom 2007: 15181-15182; Ostrom 2009: 420-421) (Tab. 1).

Table 1: Settings, systems and variables associated with self-organisation (based on Ostrom 2009) (key variables are in boldface type)

Setting/ First-level subsystems	Second-level variables associated with self-organisation	Third-tier variables
Economic development (S1)	GDP (1994-2016): 3.58 % (S1.1) GDP per capita 1,017.15 USD (S1.2)	
Demographic trends (S2)	Population growth (2005-2015): 1.52 %	
Related ecosystems (ECO)	Climate patterns of Jan-Bulak - steppe climate (ECO1) Pollution patterns from goldmine and industry (ECO2)	
Governance system (GS)	Government organisation Naryn Basin Water Management (GS1) nongovernment organisation Kyzyl-Zoo-Dostuk Water User Association (GS2) Operational rules (GS3) Collective choice rules (GS4) Constitutional rules (GS5) Monitoring and sanctioning processes (GS6)	Farmers have to clean canals to get permission to irrigate fields (GS3.1) Irrigation of fields only 3-4 times each season (GS3.2) Amount of irrigation water of AKC decided by engineer and director of GS2 (GS3.3) Turning system (GS4.1) Lottery system (GS4.2) Irrigation cycle of twelve hours costs 42.20 Som (water from Big Naryn Canal) (GS5.1) Irrigation cycle for one season costs 500 Som (water from Ak-Kiya Canal) (GS5.2)
Resource system (RS)	Sector of water and the related canal system (RS1) Clarity of system boundaries defined by fields belonging to Jan-Bulak (RS2) Size of the resource system (1,911 ha) (RS3) Human constructed facilities (RS4) Productivity of RS (RS5) Equilibrium properties (RS6) Predictability of the system dynamics (RS7) Storage characteristics (RS8)	Big Naryn Canal (RS4.1) Ak-Kiya Canal (RS4.2) Small canal built by spades (RS4.3)
Resource units (RU)	Resource mobility (RU1)	
Users (U)	All users (2,393 inhabitants) (U1) History of use/construction (U2) Leadership (U3) Social capital (U4)	Members of the Kyzyl-Zoo-Dostuk Water User Association (U3.1) Members of the Naryn Basin Water Management (U3.2) World Bank (U3.3) Regulator and engineer of Naryn Basin Water Management as well as Kyzyl-Zoo-Dostuk Water User Association (U4.1) Smallholders of Jan-Bulak (U4.2) Members of Kyzyl-Zoo-Dostuk Water User Association (U4.3)

Users (U)	Knowledge of Social Ecological Systems (and mental models) (U5) Importance and dependency of the resource (U6) Technology used (U7) Additional profession (livelihood-strategy) (U8)	
Interactions (I)	Harvesting levels of diverse users (I1)	Increase of crop yield in the western part (I1.1) Decrease of crop yield in the eastern part (I1.2)
	Conflicts among users (I2)	Conflict between two smallholders (e.g. about water) (I2.1) Conflicts between smallholders and Murabs (I2.2)
	Investment activities (I3)	Kyzyl-Zoo-Dostuk Water User Association gets financial support from the World Bank (I3.1) Payment of contribution (I3.2)
	Self-organizing activities (I4)	
	Network activities (I5)	
Outcomes (O)	Low wage for Murabs (O1) Ecological performance measures of sustainability (O2)	

Water management and irrigation in Jan-Bulak

The objective of the following chapter is to analyze, evaluate and discuss the key variables. Further variables that are important for answering the research question are included as well. As a result, reciprocal interactions of variables are deduced, analyzed and discussed.

The research data has been obtained during a two weeks on-site visit in July 2016. The team was completed by a local research partner, who was acting as a translator and contact arranger. The inspection of the canal system was implemented by several transect walks with local farmers and employees of the Naryn Basin Water Management (NBWM) and the Kyzyl-Zoo-Dostuk Water User Association (KZD-WUA). At the same time, questions regarding operating principles of the canals and gates, opening and closing times as well as responsibilities were answered. In a further step semi-structured interviews with three local farmers were conducted to gain detailed information about the irrigation system and its execution. Deeper insights into the functioning were gained through participatory observations of a field irrigation and the opening of the main gate. During an interview with three active *Murab* (water managers), a participative map was designed to illustrate the current canal system and the different areas of responsibilities (Fig. 2).

In addition, semi-structured interviews with the head of the Aiyl Okmotu and an employee of the NBWM in the office in Naryn have been conducted. A comprehensive knowledge was also obtained through an extensive talk with the director of the KZD-WUA in his office in Jan-Bulak.

Even without focusing on the local level, the importance of a sustainable use of water in Kyrgyzstan can already be derived from some general indicators like demographics (S2) and the economic development of the country (S1). Kyrgyzstan's total population amounts to 5,965,000 inhabitants with an annual population growth of 1.52 % between 2005 and 2015

(UNSD 2017). It is important to notice that the proportion of the rural population amounts to 64.3 % in 2015 with an annual growth rate of 1.17 % between 1992 and 2015 (FAO 2017a). Due to the fact that especially this portion of the population is highly dependent on agriculture and therefore on irrigation water, the enormous importance of the sustainable use of this resource becomes obvious and is underlined by a relatively high portion of the agricultural sector accounting for 17.9 % (2016) (CIA 2017) of the country's Gross Domestic Product (GDP). The knowledge about S is especially important to estimate development trends of the future and their level of influence. Nevertheless, these data (for example data on population growth) are more important on the national level to gain a holistic view. But to derive concrete impacts on the region by this variable, some more detailed statistics, which were not available, about local population growth would be necessary.

A closer look into the proportion of land used for agriculture (55 %) compared to the available arable land (12 %) highlights that an efficient resource use is crucial to maintain the already restricted cultivation area in order to supply the increasing population with food (FAO 2017b). For this, irrigation water is needed and because of that it must be ensured that the resource is not overused as a result of high demand.

Furthermore, some governmental water policies have taken place in recent years. In addition to a modern Water Code, which was signed into legislation in 2005, a Water Management Improvement Project was implemented in 2006 lasting until 2013. One goal of that project was the support and rehabilitation of WUAs in Kyrgyzstan (WB 2017: 2-3). The establishment of WUAs was intended to decentralize the task of the regulation and management of water resources and was already accepted in 1997 when the government agreed on the associated bill. The Law "On Water User Associations and Unions of Water User Associations" was thus adopted in March 2002. Two years later, twelve WUAs were established in the Naryn Region as a result of it (Degembaeva et al. 2016: 97), aiming at a better water supply of the users on the national and local level. The World Bank (WB) has a long tradition as supporter and provider of financial aid related to the water sector in post-Soviet countries (WB 2013: 4).

Nevertheless, it has to be questioned how those governmental and international efforts are influencing the local situation. The effectiveness of the governmental actions regarding the establishment of WUAs can be further questioned, considering that out of twelve legally registered WUAs in 2004 in the Naryn Region, after eleven years only four were still operating (Degembaeva et al. 2016: 97).

Geographical conditions

During the Soviet era, Jan-Bulak was established as the *kolkhoz* named after Karl Marx in 1931. Today, it belongs to the Naryn Oblast' with a total population of 2,393 (determined on 01.01.2016) (AiyI Okmotu of Jan-Bulak 2016: 1). As the majority of the people living in this village are both smallholders and medium farmers or they practice subsistence farming in addition to their actual profession (U8) as a livelihood-strategy. The number of inhabitants can also be seen as U1. The RS is represented by the sector of water and the relating canal system (RS1), which is mainly used for agricultural irrigation. The canal system relies on the characteristics of the ECO with the corresponding river and is therefore sensitive to possible disruptions like changes in the climate pattern. This issue is enhanced by the steppe climate (ECO1) of the area. With 280 mm per year, there is only little precipitation. The precipitation

maximum occurs in May (47 mm) and June (52 mm). In view of these low values it is snow and glacial melting from the mountains, which ensure irrigation. The main source for irrigation water therefore is the Naryn River, which gets water from the Yssyk Köl Oblast' located in the north-eastern part of Kyrgyzstan, as well as from tributaries from the Naryn Oblast'. However, on the upper course pollutant entry is coming from the Kumtor goldmine and other industrial activities (ECO2) (Climate-Data 2017; Kronenberg 2013: 81; Sorg et al. 2012: 725). As this section indicates, the ECO can be interpreted as vulnerable. With regard to global climate change in terms of a complete melting of glacial ice in high mountain areas the situation is getting worse because flows into and out of the focal SES are decreasing. Consequently, ECO2 endangers the RS as the concentration of chemical pollutants and contamination of water increases.

The canal system and organisational structure

At the moment, two existing canals are leading to Jan-Bulak. These are called: Big Naryn Canal (BNC) (RS4.1) and Ak-Kiya Canal (AKC) (RS4.2). The boundaries (RS2) of the RS are defined by the fields, which belong to Jan-Bulak and also the canal system itself can be seen as a spatial boundary as it regulates and determines the water flow (Fig. 2). The total range of agriculturally used fields belonging to Jan-Bulak and used by the inhabitants (U1) has an area of 1,911 ha, which is also the total size of the resource system (RS3). Due to the inhabitants, the size of the resource system - marked out by the fields- as well as both the canals with their purpose of supplying the agricultural fields of the users with irrigation water, it can be said that the RS is well defined, basically equipped and has a manageable territorial size.

The Soviets built the BNC (RS4.1) in 1941 (U2), which gets water from the Naryn River. Its starting point is located on the eastern end of Naryn city. At its ending point the canal merges into the other important canal, the AKC (RS4.2). For the irrigation of the fields belonging to the community of Jan-Bulak the BNC only provides 0.6 m³/s of water, which is caused by a decreasing water flow rate due to further irrigated areas of the (peri-)urban districts of Naryn as well as evaporation and infiltration at the canal itself.

The majority of the fields are irrigated by the AKC, beginning at the eastern boundary of the village, which was also built by the Soviets from 1981 to 1985 (U2). Due to its history the canal system as it currently exists can be seen as the heritage of the Soviet era. Therefore, the tradition and infrastructure of irrigation was established by the Soviets and thus still influences the present usage of the water resource. The AKC irrigates an agricultural area of 13.61 km² and has a water flow rate of 0.8 m³/s at its beginning. Due to changes in the water flow rate during the year, depending on factors like melt water, precipitation and water withdrawal on the upper course of the river, a definition of a specific value of the unit water flow is difficult. The available amount of water for irrigation or the number of hectares which can be irrigated in a specific time period may be the best approximation of the number of RUs as well as an indicator for RS5. Furthermore, these indicators are also interrelated to the variable RS7. To set this variable, combined U5 like the water flow rate today and in the past is crucial. Therefore, users have to be aware of the amount of water which can be used for irrigation as well as of the approximate amount of water loss due to

inefficient water management, poor conditions of the canals, evaporation, leaching and climate changes as described above.

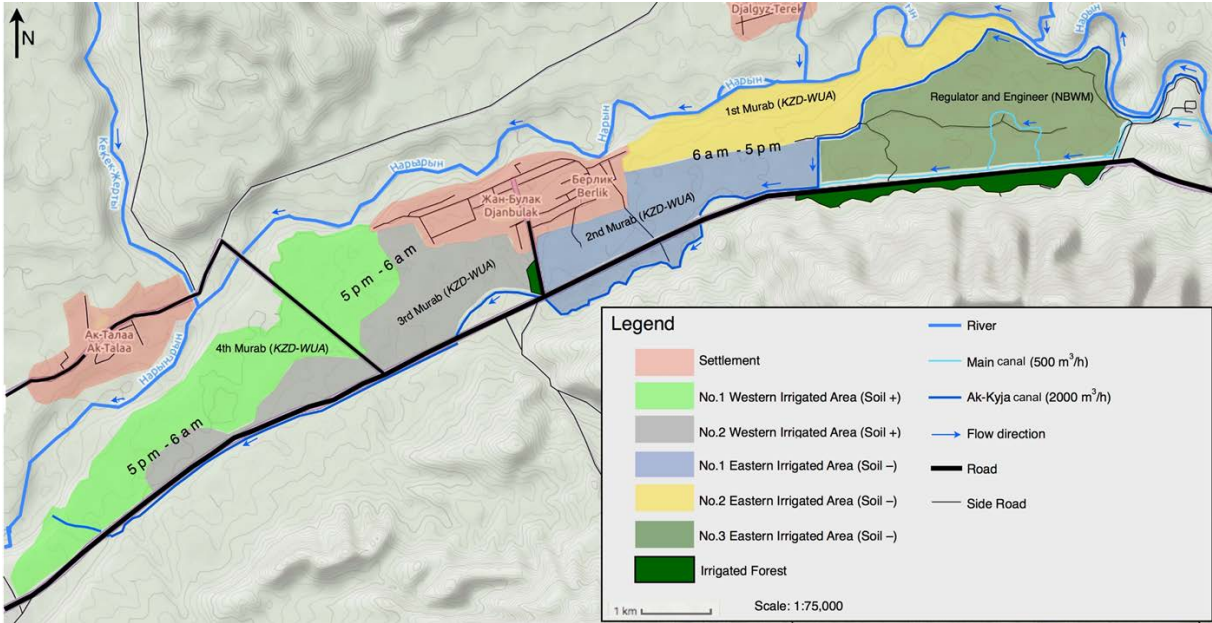


Fig. 2: Participatory map: Irrigation system in Jan-Bulak and its schedule of the turning system. Design: Marx, Müller & Zhumagulova 2016

RU1 is high due to the physical features of water, but very limited in steering possibilities. Nevertheless, the usage of a canal system is one adaption to this limiting factor. The water availability is also highly dependent on natural conditions, like precipitation, droughts and heat waves, along with the existent river regime (cf. geographical conditions). In the face of climate change, these influencing factors will change and become even less predictable. In order to counter these insecurities of future water availability we have to mention that RS8 is currently non-existent. Hence the availability of water in the future is a key characteristic of reasonable self-organisation (I4) and sustainability (O2) of the SES in Jan-Bulak. During the field research, these problems have been discussed with smallholders. On this occasion it turned out that peasants in the research area have a very high U5 because they were aware of evaporation, infiltration and leaching caused by inefficiency. But solution strategies such as fundamental repair measures of the canals to stop water infiltration or irrigation practices towards less evaporation are not focussed on at the moment. Also possibilities for an efficient RS8 in case of a dramatic shift of the flow regime caused by climate change respectively the complete melting of glaciers are not being planned. According to smallholders, this problem will only be resolved when there is no more water in the river. The interaction among RUs is very high, as water is directly influencing the growth rate of crops and therefore the crop yield. The importance of irrigation also emphasizes the high economic value and a high U6. Especially the last two variables associated with the unpredictability of the RS in the future (see above), underlines the requirement of an adequate management of the RS, undertaken by I4.

The GS of the canal system in Jan-Bulak can be divided into two sections. There are the NBWM as a governmental organisation (GS1) and the KZD-WUA as an NGO (GS2). The NBWM administrates the BNC. Its range of responsibilities regarding the BNC includes maintenance,

repair measures and cleaning of the canal. These tasks are undertaken by an employee of the NBWM (U4.1) (Fig. 3).

One irrigation cycle takes twelve hours and costs 43.20 Som per ha (GS5.1), for the fields that are supplied by the BNC. Farmers whose fields are irrigated by the AKC have to pay 500 Som per ha (GS5.2) for each season. This indicates that the irrigation fee of the KZD-WUA is almost 1.5 times higher than the fee of the NBWM. As farmers are responsible themselves for taking care of irrigating their fields, they can also be seen as a social capital (U4.2) in the context of the irrigation system. Some operational rules (GS3) regarding the usage of the canal have been set. Farmers have to clean their small canals to get the permission to irrigate (GS3.1). Furthermore, each field is irrigated three to four times between April and October (GS3.2), depending on the rain, which enables two harvests per season. If we consider these operational rules set by the smallholders themselves, it is possible to say that this organisation structure is an indicator for self-organisation.



Fig. 3: Flow rate regulation at the gate of the Big Naryn Canal. Photography: Marx, 2016

The order of irrigation is based on a turning system (GS4.1). According to farmers, first irrigated fields lead to a better harvest rate. In this regard, equilibrium properties (RS6) are not given as the farmer who can irrigate first has an advantage over the others. In case of I2 between two farmers about the amount of water (I2.1), a Universal Current Meter from the NBWM, a tool to demonstrate whether the water distribution is equal or not, can be used as a conflict-solving method. Nevertheless, monitoring and sanctioning processes are missing within the GS, and the risk of free rider problems is increasing in the SES.

GS2, which is partly financed by the WB (I4.1), administrates the AKC. GS2 was founded in 2003 and provides together with the employee of the NBWM a number of the social capital (U4) of the system. To get a better understanding of U4 it was further subdivided into four third tier variables. According to GS2 the board of directors, consisting of seven members, is elected every three years as well as one director is recommended by local citizens. The proposed director has to be confirmed by the seven members of the board of directors. The director determines people to hold the positions of one engineer, regulator, accountant and four *Murab*. Depending on the water flow rate of the Naryn River and the harvest period of grass the engineer and the director decide about the amount of water which will enter the AKC at the main gate during the irrigation period and can thus be seen as another operational rule (GS3.3). All members of the KZD-WUA are executing their position in addition to their

actual profession. Therefore, sometimes they have a very high workload and their tasks within the KZD-WUA cannot be executed properly because of their obligations from their actual profession (U8).

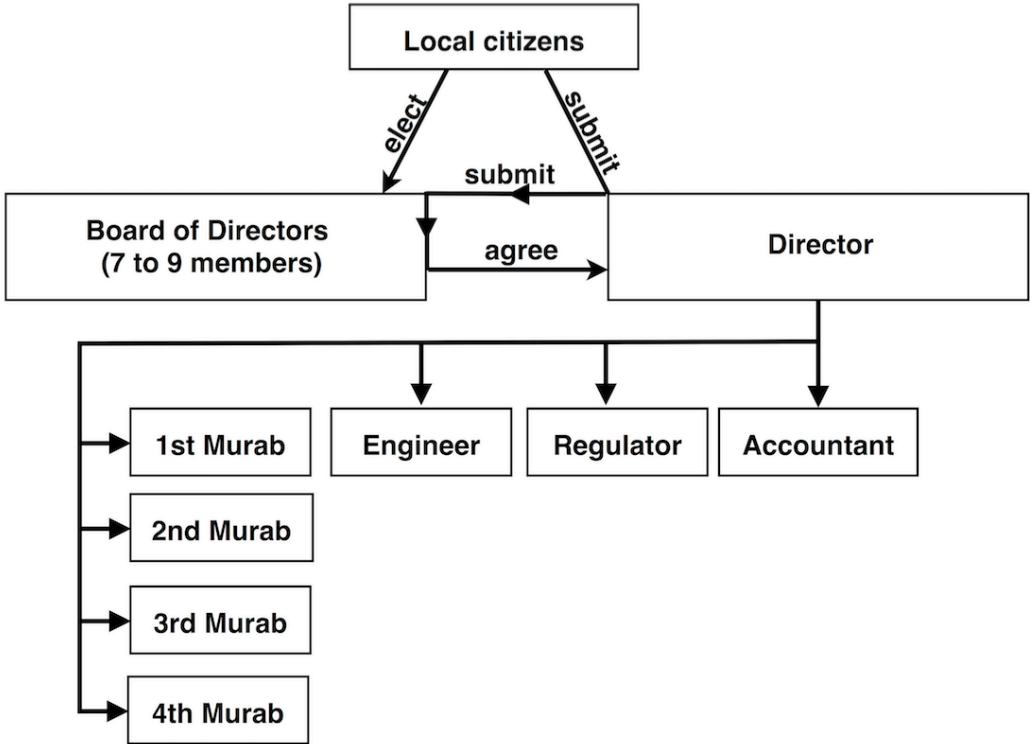


Fig. 4: Organigramme of the Kyzyl-Zoo-Dostuk Water User Association.
Design: Marx, Müller & Zhumagulova 2016

According to GS2 this regulation should be realized by the regulator of the association but is temporarily held by an employee of the NBWM (U4.1). Regarding the hierarchical structure of GS2 with its various responsibilities distributed among its members (U3.1/4.3) and the employees of the NBWM (U3.2/4.1), it is very difficult to identify a clear leadership (U3). Additionally, for some major investments GS2 depends on the willingness of the WB (U3.3) In case of the requirement of large repairs, a letter of inquiry has to be submitted to the main office of the WUAs in Naryn. From there the request will be forwarded to the responsible authority of U3.3. This means that I4 of GS2 is depending on U3.3. In the past, the KZD-WUA already got financial support by U3.3. 3,600,000 KS were given to GS2 as a starting capital for repairing and maintaining the AKC. 25 % of this amount had to be paid back. Further 28,000 USD were subsidised in 2014 for a new excavator (U7) for consolidation and improvement works. Most of these investment activities (I3.1) have been conducted by U3.3. Some smaller investments in repair measures can also be conducted by GS2, financed by the payment of contribution (I3.2). However, according to peasants these attempts to improve have not led to less infiltration or evaporation of water in the canal system. Consequently, I3.1, given by WB, are not leading to an improvement of the situation.

Table 2 shows the current salaries and the duration of employment of the present employees of GS2. According to them, the wages cannot cover living expenses. Combined with a high workload the motivation remains sometimes poor also because employees have to secure their long-term livelihood (U8). Even though the differences between the wages seem not

to be that big, it has to be considered that a *Murab* has quite more working days than the accountant or the engineer. For that reason, it is understandable that especially this position is rather unpopular and the people are complaining about bad salaries.

Table 2: KZD-WUA positions and their corresponding salary and duration of employment in years (Data base: Interview with the Director of the KZD-WUA, July 2016)

Position	Salary	Duration of employment (years)
Director	4,000 Som	8
Accountant	2,500 Som	1
Engineer	2,000 Som	2
Murab	2,000 SomS	1 (only 1 Murab is working since 4 years)

The last section also demonstrated that the whole system only works due to a high level of information sharing among U1, the esponsible persons (U3.1; U3.2) and GS2 with its contact to U3.3 as financier. This also includes many network activities (I5), which have to be undertaken to ensure the functioning of the SES.

Irrigation system of Jan-Bulak

The supply of irrigation water for the fields which belong to the BNC is the responsibility of the regulator and the engineer of the NBWM (U4.1). The irrigation system of the area of the AKC however is more complex. It is divided into a western and an eastern part due to variations in the topography, the relief and the geographical location of the fields. It is further subdivided into four sectors of responsibility (Fig. 1), controlled by four water managers (Sehring 2005: 9-12). The irrigation itself is realized through small canals, which have been built by the farmers themselves (RS4.3) using spades (U7) (Fig. 5). These canals get water from the BNC or AKC to enable irrigation. Therefore, farmers have to manage and control the appropriate water supply for their own fields.

The provision of irrigation water however is the responsibility of the *Murab* (Fig. 6). As Figure 1 shows, the irrigation in the eastern part takes place from 6 am to 5 pm and the western part is irrigated after 5 pm until 6 am. The *Murab* of the eastern part have to close the water gates to ensure the water availability for the irrigation of the fields in the West. The eastern part is characterised by a hilly terrain, which is why irrigation at night with headlights would be more complicated than in the shallower part of the West. Due to these conditions and the fact that the water is entering the area from the East, the fields of the eastern part are irrigated during the day until 5 pm. Nevertheless, according to peasants a better harvest rate can be observed in the western part because of more fertile soils and a less sandy character. Irrigation at night also leads to less evapotranspiration and evaporation, resulting in differences of the (I1) yield between the western (increase) (I1.1) and the eastern (decrease) part (I1.2).

This indicates that due to different conditions, variations in the harvest rates occur and lead to a further disequilibrium between different farmers. This is partly caused by the turning system but also reliant on the existing natural conditions (RS6). On the contrary, the order of irrigation in the West is based on a lottery system (GS4.2), changing every season to guarantee greater fairness among agriculturists. Because of less water availability in the West, the last irrigated field may have the greatest disadvantage (see RS6). However, this type of water management is not always working without conflicts (I2). Farmers of the western part complained about occasional suffering from water scarcity due to poor working morals of individual *Murab* (I2.2). This issue was mentioned at assemblies several times, but no improvement has been realized. The



Fig. 5: Regulation of the water flow for the irrigation of a grass field.
Photography: Marx, 2016

collection of irrigation fees from the farmers is another task of the *Murab*. This approach turned out to be problematic because local farmers are not always willing to pay this fee if their *Murab* is not working conscientiously. Due to a missing GS6, both of these problems have remained without consequences and thus aggravate the situation. This means that the organisational structure between GS1, GS2, GS3 and U1 is principally working, but nevertheless there are eminent problems.

The mentioned conflicts between the water managers and the farmers (I2.2), the low wage and sometimes unpleasant working conditions can be seen as a reason for the inefficient and insufficient work (O1) of the *Murab*. It also has to be considered, that the *Murab* need to fulfil their obligations from their actual profession (U8) as well and are therefore prone to a high workload. Better salary and GS6 could be helpful to solve this problem. The question of salary again is related to the financial situation of the KZD-WUA and once again highlights the scope of this problem and the importance of a financial invulnerability.

Summary and conclusion

The following conclusion will summarize in how far self-organisation is already implemented in Jan-Bulak. Subsequently the question if a sustainable water management and irrigation system is already achieved or if there is a high potential to achieve it will be answered. This shall be implemented using a flowchart (Fig. 7) that has been created on the basis of the presented analysis and discussion of the research data.

The paper shows that self-organisation is partly given in Jan-Bulak as the users are provided with a more or less satisfying amount of irrigation water at the moment. A manageable size

of the RS combined with a high economic value of water and the users' dependency on it as well as the users' knowledge of the SES, demonstrates the need and also the opportunity for self-organisation. Further positively influencing components are the existent canal infrastructure, the adjusted water management and the complex irrigation system, which have been jointly developed by the users, and include controlled procedures and rules.

Furthermore, the KZD-WUA and the NBWM, on a subordinate level, represent mediatory authorities as well as an implementing instrument.

But the actual existence of self-organisation (I4) and sustainability (O2) needs to be questioned. For although the analysis showed some important components for self-organisation and a responsible resource use are given, negatively influencing aspects became apparent as well. The main issue is the lack of financial resources. As the flowchart shows, this problem can be attributed to several factors such as non-adopted and non-context related support of the WB. It also demonstrates that the payment of contribution is not working properly whereby the KZD-WUA is limited in its opportunities to build up some savings (Fig. 7). Even more numerous are the impacts resulting from this financial problem. Low wages are negatively influencing the working morals of the *Murab*, resulting in conflicts between them and the users. As a consequence, the latter do not



Fig. 6: Murab, opening the main gate at the Naryn River. Photography: Marx, 2016

receive enough water or not at the right time. As the flowchart shows this issue is worsened by an unfair turning system that leads to different harvest rates among the users and aggravates the conflict potential which is counterproductive to achieving I4 (Fig. 7). Therefore, ethical standards, moral and social competence and trust in each other, which are important aspects to reduce expenses of self-organisation, are not given. In addition, the impact of the people's obligations to fulfil their liabilities regarding their actual profession as it is part of their livelihood-strategy also needs to be considered as this aspect can also have negative impacts on self-organisation when they cannot handle the high workload of both, their actual profession and their liabilities to the community regarding water issues or to the KZD-WUA.

Poor canal conditions and missing future plans to preserve the prospective water availability in the face of climate change are further components which demonstrate that, according to the SES approach, a sustainable resource use now and in the future cannot be guaranteed.

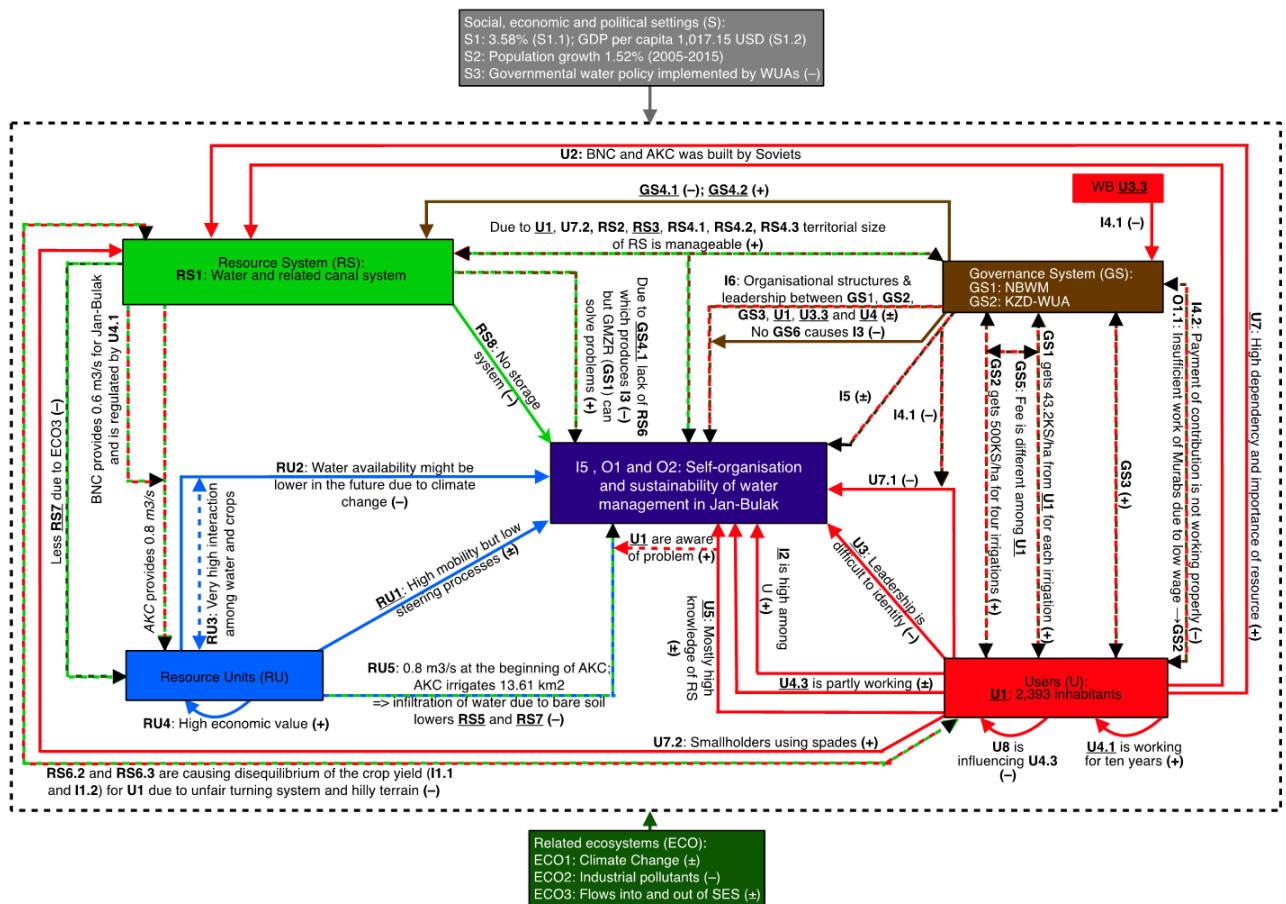


Fig. 7: Flowchart, based on the empirical research data, to show main interactions (I) and outcomes (O) of reciprocity among the components U, GS, RS and RU. Design Marx, 2017

According to the research question (+) refers to positive influences on self-organisation (I4) and sustainability (O2), whereas (-) refers to negative influences.

Arrows of one colour: influences of U, GS, RS, RU, S or ECO

Varicoloured arrows: reciprocal influences

Key variables of self-organisation: underlined

In attempting to answer the research question it became apparent that the reason why self-organisation and sustainability are not totally fulfilled needs to be considered on a broader level and cannot only be attributed to the users of the RS. Data about the economic, social and political settings are available on the national level and provide important information, but they are not enough to deduce their impact on the local level. In addition, we need to take a closer look at the role of the WB, operating as a financier. As financial resources are the main problem, it seems that the top-down approach with its 'rolled-out' practices, neglecting traditional and cultural aspects as well as local conditions are not target-oriented towards improving the local situation. Especially the WB could compensate the costs that will result from a higher number of users in the future due to population growth and the strong use of the canals if their support was solution-oriented. But to manage this high number of users a clear leadership is also indispensable. The analysis and the flowchart thus demonstrate that, in our case, the responsibilities are highly distributed among different positions and the actors cannot act independently as they are restricted in their possibilities

(e.g. KZD-WUA from WB). A clear leadership with related competences is therefore not given. But it also has to be considered that the traditional leadership such as the council of elders is not even integrated in the Governance System. This again proves a missing context-related approach in the system.

In accordance with these deductions it becomes obvious that power as well as knowledge and sovereignty of information and interpretation, have been mainly implemented by the WB. This can be seen as a reason why self-organisation – if at all – is only partly given and implemented by Kyrgyz national institutions and by users on a local level.

Logically this strategy produces a gap of power within the SES, whereby sustainability, as defined in the first chapter with a balance of power and knowledge, is not given. On this basis we can deduce that the WB is not concerning complex post-colonial and especially in Kyrgyzstan post-socialistic issues that would be of vital importance.

As a result, the paper makes clear that influences as per description of institutions from countries in the Global North such as the WB have to be built on respect and critical self-reflection to fulfil concepts like self-organisation and sustainability. Only in this way and without a ‘roll out’ of neoliberal practices, development cooperations from the Global North will obtain holistic sustainability based on ethical standards, moral and social competence in order to implement commons and minimize water scarcity and consequences caused by climate change. Therefore, the approach of the SES needs to be adopted in a way that also allows further considerations of socio-cultural aspects to be included instead of mainly focusing on environmental aspects. In this regard the question considering sustainability cannot be completely answered in this paper. On the one hand it becomes apparent that the used approach of the SES in our case was suitable to obtain an overview of the current situation, the interaction and influences between the different actors and variables. On the other hand, more variables and their complex interactions are needed and have to be taken into account to make a more holistic statement regarding the research question. This was in turn not possible in this case due to the limited stay and research scope. Nevertheless, this paper provides another example of how water allocation has undergone a dramatic transformation from governmental to private use and administration in a post-Soviet country. It is also a good base for further research regarding sustainability in the sector of water management and the further integration and implementation of context-related solutions based on prospective research results to explore and analyze global issues concerning water scarcity.

List of Abbreviations

AKC	Ak-Kiya Canal
BNC	Big Naryn Canal
KZD-WUA	Kyzyl-Zoo-Dostuk Water User Association
NBWM	Naryn Basin Water Management
SES	Social Ecological System
WB	World Bank
WUA	Water User Association

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6 National Identity and its Representation in Naryn

Introduction

The collapse of the Soviet Union in 1991 was not only a turning point in world history, but also led to a deep restructuring of the political and ideological landscape of the multi-ethnic Kyrgyz society, at a time when Kyrgyzstan was proclaimed an independent state for the first time. The transformation process facilitated political and economic change but also led to changes in terms of identity and national awareness. As Kyrgyzstan had never existed as a nation-state sharing the same boundaries or name as today, up until the Soviets founded the Kyrgyz Autonomous Socialist Soviet Republic in 1926, a national consciousness was poorly developed. In pre-Soviet times, people in today's Kyrgyzstan identified along the boundaries of clan and kinship structures and along the lines of nomadic or settled lifestyles. After independence, Kyrgyz elites tried to gain legitimation and stability for the new state by developing a shared Kyrgyz identity and a common narrative of history, which emphasized a specific Kyrgyz past and traditions. Consequently, a new semiology was created and placed in public space.

In our research, we dealt with the nation-building processes and the closely linked narrative of a Kyrgyz national identity and history. We tried to identify such nation-building processes and their traces in Naryn Oblast', which is considered as 'the real Kyrgyzstan'. The frame of analysis is built on theoretical approaches to national identity and nationality based on the works of Benedict Anderson and Stuart Hall. Nations and national identities are considered as mental constructs or rather culturally constructed categories.

Thus, the research questions to be answered in this paper are: In which contexts and conditions was the Kyrgyz nation and the idea of Kyrgyz national identity created? What are the traces of identity and nation-building processes and representations of national identity in Naryn?

In the first part of this article, the theoretical approach will be outlined. We will clarify our constructivist understanding of nation and national identity and discuss nations as systems of cultural representation. Following this, we will outline the foundation of the Kyrgyz Socialist Soviet Republic under Soviet rule and clarify its significance for contemporary aspects of ethno-nationalist strategies and the Kyrgyz national identity, as there would be no Kyrgyz Republic today without the Soviet nationality policy. A brief look at our methodology will specify how we gained our results that will be discussed subsequently. We followed the traces and representations of national identity on-site in urban and rural public space and analyse them in context of the theoretical approach. Accordingly, five sections considering the diverse aspects of national identity in Naryn form the central part of the article: (1) the narrative of "2200 Years of Kyrgyz Nationhood", (2) Manas - the great Batyr, (3) traditions, symbols and semiotics, (4) Naryn - 'the real Kyrgyzstan', and (5) the impacts of the Soviet past and Islam on the challenged identities.

Theoretical approach

Considering the controversial nature of the terms 'nation' and 'national identity', a closer examination of those concepts is warranted. We will clarify our understanding of nations as social constructs and subsequently present the concept of the cultural representation of nations as the analytical basis for our research.

The construction of nation and national identity

In our research, we did not use the rather traditional essentialist approach to nation, nationality and national identity that considers a unitary nation as a primordial and natural category based on language, common genealogical origin or ethnicity, culture and religion. In this approach, nation is imagined as an objective, permanent, and measurable characteristic that constitutes certain group by establishing equalities and connections due to a shared national identity. This view on nation is challenged by a constructivist approach on nation and national identity which questions the naturalness of nations and highlights that nations are the results of historical and continuous cultural processes which emerged only in the modern era (Renner 2009: 250). In this sense, "the existence and coherence of a particular nation is (...) best understood as an ongoing product and not the primordial precursor of nationalism" (Sparke 2009: 488). That means that national identity is better viewed as a performance than faith. In our research, we followed the assumption that nations are not the natural or inevitable conditions, but the outcomes of very specific historical pathways. The specific historical processes that lead to the idea of a Kyrgyz nation and finally the Kyrgyz Republic will be outlined below.

Following Benedict Anderson, nations can be understood as mental constructs or as imagined political communities in which individuals are somehow connected by an abstract sense of solidarity and identification to a shared national territory. This national community imagines their nation as limited and sovereign (Anderson 1996: 15-17). This does not mean that nations are not real: "The idea of a specific national community becomes reality in the realm of convictions and beliefs" (De Cillia, Reisigl & Wodak 1999: 153). The imagination of national identities is accompanied by constructions of uniqueness and difference that constitute in internal homogenisation and external distinction (De Cillia, Reisigl & Wodak 1999: 153-154).

Nations as systems of cultural representation and narratives of history

Following the assumption that nations or national identities are mental constructs, it can be assumed that they can be produced, reproduced and changed by means of language and other semiotics (De Cillia, Reisigl & Wodak 1999: 153). National identities are complexes of shared ideas, concepts and perceptual patterns that are conveyed or developed by a corresponding national socialisation. Stuart Hall puts it as follows:

"(...) in fact, national identities are not things we are born with, but are formed and transformed within and in relation to representation. (...) It follows that a nation is not a political entity but something which produces meanings - a system of cultural representation. People are not only legal citizens of a nation; they participate in the idea of the nation as represented in its national culture." (Hall 1994: 612)

One of the most important aspects of the discursive construction of nations and national identities is history, and the narrative of history of a certain nation. "History is an essential

ingredient in constructing and maintaining the imagined community of nationhood" (Liu & Hilton 2005: 239). History provides the community with narratives that tell a story of who they are, where they come from and where they should be going. The representation of history creates meanings and shared memories that connect the present with the past, and defines the social identity of peoples, and how peoples relate to other peoples (McLean 1998: 244; Liu & Hilton 2005: 537). Another crucial factor in the formation of a nation is the development of the daily language into the official state language of the respective nation (Anderson 1996: 82-84).

Hall suggests five main elements that are important for the narrative of a national history. The first element (I) is the narrative of a nation as it is told in national history, literature, media, etc.

"These provide a set of stories, images, landscapes, scenarios, historical events, national symbols, and rituals which stand for, or represent, the shared experiences sorrows and triumphs and disasters which give meaning to the nation." (Hall 1994: 613)

The second aspect (II) is the "emphasis on origins, continuity, tradition and timelessness" in which the nation is presented as primordial and natural while the "essentials of the national character remain unchanged through the vicissitudes of history" (Hall 1994: 614). The third element (III) is what Hobsbawm calls the invention of tradition:

"'Traditions' which appear or claim to be old are often quite recent in origin and sometimes invented (...) 'Invented tradition' is taken to mean a set of practices (...) of a ritual or symbolic nature, which seek to inculcate certain values and norms of behaviour." (Hobsbawm 1983: 1)

The fourth (IV) aspect is the foundational myth of a nation - often a mythical story in which the origin of the nation, its people, and their national character is located. The fifth element (V) is the idea that national identity is rooted in a pure, original people that has lived on the particular territory since ancient times and is regarded with certain nostalgia (Hall 1994: 615).

Considering these elements of systems of representation of a nation, our aim is to show how this representational system is configured in the Kyrgyz narrative of national identity and history and what traces of this processes can be found in Naryn. The results will be put in context with the elements mentioned above and presented in the following sections.

Historical approach

To understand the contemporary aspects of nationality in Kyrgyzstan, one has to take a look into the Soviet past where the foundations for the nations and national identities of the Central Asian states have been created: "Post-Soviet nationalism is the result of the Soviet nationalities policy with its institutionalisation of ethnicity, nationality and nationhood" (Haugen 2003: 110-111). In the following section, the Soviet-led creation of nations, their causes and contexts, and their consequences for the Kyrgyz national identity will be outlined briefly.

The foundation of the Kyrgyz Socialist Soviet Republic

Before the Soviet state literally created the Kyrgyz Autonomous Socialist Soviet Republic in the course of the national territorial division in 1926, there has not been a Kyrgyz named state or territory. Until 1876, most of the tribes that are today marked as Kyrgyz have been part of the Khanate of Kokand that eventually came under the dominion of the Russian Empire. The Eurocentric concepts of ethnicity, nation, and central state were mostly alien to the people living in this region. "This concept of ethnic group was largely invented post facto by Soviet theoreticians in order to justify an imposed territorial realignment" (Roy 2000: 3). Social relations and loyalties were not attached to alleged ethnic affiliation, but to family relations, clans and tribes. The important feature regarding group identity was the division between nomads and people living in sedentary structures (Lowe 2003: 108; Schmidt 2007: 210-212).

After the Bolshevik came into power in consequence of the October Revolution 1917 and the won civil war, plans for a great social restructuring according to the socialist model of society were made. Neither classes nor nations should exist in this vision of society. This meant deep-reaching changes for the Central Asian societies: Aside from the collectivisation and the accompanying settlement policy towards the previous nomadic society, this restructuring meant the delimitation of national republics along alleged ethnical and linguistic criteria (Martin 2001: 73). It might seem paradoxical from today's perspective that the Soviet Union, which stood for an internationalist attitude, founded and promoted the Central Asian nations, but this fact needs to be regarded in its historical context.

Following Terry Martin, Lenin and Stalin considered nations not only as by-products of capitalism but also as inevitable products of modernity and the historical progress: "national consciousness was an unavoidable historic phase that all peoples must pass through on the way to internationalism" (Martin 2001: 70). Since nations were in a teleological sense considered as necessary and natural stages of the social evolution, the goal of the Soviets was to accelerate this process. The Russian nation was claimed to be the most progressed whereas the Central Asian region - especially the Nomads - was considered 'backwards' and 'primitive' (Geiß 1995: 162 & 165; Dörre 2014: 87-88). Simultaneously, the Soviets distinguished between an offensive Great-Power chauvinism, which was associated with the Russian Tsarist Empire, and a defensive nationalism of suppressed nations, which was considered as a rightful reaction to the chauvinist nationalism. In this distinctive defensive nationalism, the Soviet leadership also saw opportunities for the emancipation from the capitalist bourgeois order of the Tsarist Empire (Martin 2001: 69-71). In addition to these ideological reasons, there were strategic considerations in the founding of nations as the Soviets intended to prevent the development of pan-Turkic or Islamic sentiments (Geiß 1995: 162, 165). The most important strategy in the promotion of nationality was the *korenizaciya* (rooting) which will be closer examined in the next chapter.

Precondition for the *korenizaciya* in Central Asia was the already mentioned division in national territories itself. The basis for this division were the views of Stalin who in his role as the commissioner of national issues defined a nation as follows:

„A nation is a historically constituted, stable community of people, formed on the basis of a common language, territory, economic life, and psychological make-up manifested in a common culture.“ (Stalin 1953: 307)

The national republics should be categorized by the means of 'objective' criteria. In 1923 and 1924 ethnographic and statistical investigations were conducted which were meant to be the basis for the following national territorial delimitation. But the partition along linguistic and ethnic features turned out to be a very complicated endeavour. There have been no clear linguistic borders, many people were bilingual or multilingual, and since ethnic affiliation has not been an important marker of identity, many people did not know to which ethnicity they should associate themselves (Geiß 1995: 82; Martin 2001: 73; Schmidt 2007: 212). Additionally, a lot of those alleged ethnic borders did not match with reasonable borders in an economic or administrative way (Geiß 1995: 82). In the course of this categorisation and according to the strategy of double assimilation, every Soviet citizen received the Soviet citizenship *graždanstvo* and a corresponding nationality, the *nacional'nost*. Those nationalities were hierarchically ordered and titular nations were founded. The titular nations and their members gained various political and cultural privileges - the language of the respective titular nation was to be spoken in the respective republic - in contrast to the minorities which had less rights and social representations (Martin 2001: 73; Dörre 2014: 89).

Creation of national identity

In 1936, Kyrgyzstan became a full-fledged Soviet republic. This was accompanied by a defined Kyrgyz territory, an own political leadership, a flag, and a national emblem as well as various administrative, economic and cultural institutions. The Kyrgyz language, the main criterion in the national division, was written down for the first time (Schmidt 2007: 212). "Language was seized upon as a key element of identity, and the under-developed tongue was given a script (...), an expanded vocabulary, grammar, dictionaries, literature, and other elements necessary to declare it formally" (Lowe 2003: 109). The daily language of the people became an official language.

The *korenizaciya* was supposed to lead to a social evolutionary catch up of the 'backward' nations and simultaneously promote the socialistic ideas and ideology - which was now receivable in their own languages - by targeted support of the respective national elites. Terry Martin described this as an "affirmative action empire":

"Soviet policy systematically promoted distinctive national identity and national self-consciousness of its non-Russian populations. It did this not only through the formation of national territories staffed by national elites using their own language but also through the aggressive promotion of symbolic markers of national identity: national folklore, museums, dress, food, costumes, opera, poets, progressive historical events, and classy literary work. The long-term goal was that distinctive national identities would co-exist peacefully with an emerging all-union socialist culture that would supersede the pre-existing national cultures." (2001: 74)

The designed long-term goal of a common Soviet identity could not be reached in the course of history. Instead, the measures of the Soviet leadership caused a strengthening of the

ethnic national consciousness. Even if the Soviet ideology followed national targets in principle, the Soviet nationality policy and its administrative implementation including the distribution of passes and censuses promoted national identities in Central Asia. Accompanying this, labels of self-consciousness, identity and belonging were created which not only contain a sense of inclusiveness but also a conception of exclusiveness and 'the other' (Schmidt 2013: 171). Nationality gained importance and became a fundamental feature of identity - one could also say that the performance of nationality adapted its constructed category. In the following decades, the Kyrgyz society was reconstructed. The influence of Islam was limited and social traditions which were not in line with the Soviet ideology were replaced (Roy 2000: 79). Even though the Kyrgyz language got constituted under Soviet rule, soon, the Russian language became dominant in the urban centres of Central Asia since Sovietisation became strongly connected to Russification and Russian served as language of inter-ethnic communication (Lowe 2003: 110).

The result of the nationality policy of the Soviet leaders outlined in the previous section was a multi-ethnic republic under the leadership of the Kyrgyz titular nation. Ethnicities or nationalities were artificially separated due to similar languages and lifestyles. This multi-ethnic character of Kyrgyzstan not only remains after the end of the Soviet Union, but it comes along with a growing sense of ethnic awareness and national affiliation - and going with this: a growing sense of differentness (Lowe 2003: 112). Today, Kyrgyzstan is home to more than 90 ethnic groups (with Uzbeks and Russians as the biggest non-Kyrgyz groups) which make up for more than 30 percent of the population of Kyrgyzstan (Schmidt 2007: 218; Beyer 2010: 13-15). In regard to this diverse composition of the population of Kyrgyzstan, the ethno-centric and exclusive nation-building processes, which we will outline in the following sections of this paper, are highly problematic and are likely to facilitate discrimination and marginalisation of non-Kyrgyz groups.

Methodology

A deepened discussion using existing literature on nation-building, cultural aspects of nations, and Kyrgyz history allowed the approach to our central research questions. We tried to reach the research goal primarily via the conduction of interviews and via observations on site.

For the undertaken observations, the work has been aligned strongly to existing literature. Fiona McLean for example provides her readers with steps to explore national identity through observations which includes the consideration of monuments in public space, visits of museums and sites of representation as well as the consideration of art and traditions in daily life. She "develop[ed] a deeper understanding of the way in which museums negotiate and construct meanings of national identity" (McLean 1998: 244). Further, she "concludes that museums (...) have a significant contribution to make in developing our understanding of national identity" (McLean 1998: 244). A few days in the Kyrgyz capital allowed an impression to be held in mind. Further research took us in an area which might represent the traditional Kyrgyz life, as Naryn Oblast' is considered as a typical Kyrgyz region - a topic that will be discussed in the next section.

In Naryn Town itself, the presence of the National State University allows access to teaching staff and experts on different subjects. Research about Manas and the history behind the myth had been facilitated thereby and museums (Naryn Historical Museum of Ethnography, Art Gallery, Koshoi Korgon Museum) could serve for information on history and awareness in and about Naryn as well as for identifying potential interview partner. The visitation of monumental sites and the environment of Naryn Town and neighbouring districts (Koshoi Korgon, Tash Rabat, Kara Suu) as well as given festivities allowed an insight in Kyrgyz traditions (arts, omnipresence of Manas, attachment to rural country) and of how the country is presented in tourism.

The interviews were conducted guideline-based in formal as well as in informal ways using the help of an interpreter. The questions we asked were about the epic of Manas (an important Kyrgyz epic that tells the story of Manas), its role and representation in public and daily life, about Kyrgyz traditions (festivities, food, music, in family, etc.) and their significance as well as about the shift from Soviet times to today in relation to identity and affiliation. Discussions were undertaken with experts on contemporary history as biographical and narrative interviews as well as in more intimate circles with relatives of the Kyrgyz' research team. The work with locals allowed us to get an authentic impression of how households are organized and to get an insight of how Kyrgyz people in Naryn think about their and the country's past as well as about their feelings facing questions of national identity today and before. Thoughts on the topic of the shift from Soviet to Kyrgyz identity could best be gathered by conducting interviews.

However, we would like to add that representations of national heritages often come along with touristic representations and imageries - Nicola Palmer calls these "processes by which the projected identities are selected for tourism promotion" (2007: 647). Due to this and our lack of language we faced difficulties in assessing traditions and representations of Kyrgyz culture as they might be performed with us as a touristic audience in mind. This, for example, applies for the *Shyrdak* Festival discussed later where one might get the feeling that certain traditions are performed to meet the (supposed) expectations of tourists or consumers.

Results

After the break-down of the Soviet Union and the accompanying independence (that was not really desired by most people living in Kyrgyzstan since it did not have the infrastructural and institutional requirements nor the ideological desire for an independent state), far-reaching transformations followed - not only in politics and economics, but also in categories of culture, history and national identity (Schmidt 2013: 240). With the demise of the Soviet Union an ideological vacuum was left that the Kyrgyz elites and the Kyrgyz government needed to fill by developing a shared and unifying identity to equip the new state with legitimacy, stability and credibility (Lowe 2003: 114). The goal of this strategy was, inter alia, to counter sub-national loyalties and supra-regional identities like Pan-Turkism or Islam as well as strengthening their own political and economic power (Schmidt 2007: 220-221; Marat 2008a: 12). In this course instruments like the creation of a century-long Kyrgyz

history, stories of pre-Soviet heroes - especially the epic of Manas -, the recourse of perceived traditions, a new semiology, and the reinterpretation of symbols were used. The goal in this research project was to identify such nation-building processes and their traces in Naryn Town and oblast'.

In this section we are going to present the results of our research and assign them to specific categories which we characterized as principal issues or challenges of the Kyrgyz nation-building process: The Kyrgyz historical narrative of "2200 Years of Kyrgyz Nationhood", the significance of Manas, traditions, symbols, and semiotics, the perception of Naryn as "the real Kyrgyzstan" and the impact of the Soviet-past and Islam on the challenged identities. Those results and their meanings will be put into context to the theoretical approach outlined above with special consideration of the construction of the nation by the creation of historical narratives and the elements of cultural representation stated by Stuart Hall.

The narrative of "2200 Years of Kyrgyz Nationhood"

One of the most important aspects of this nation-building process is, as we pointed out, the narrative of a connecting history, as "perceptions of the past are essential for the creation of a national self-consciousness" (Lowe 2003: 121). Following that, the Kyrgyz elites had to find a suitable narrative of history that, for obvious reasons, reached out further into the past than Soviet times - in which the formation of the Kyrgyz state took place - and connected today's Kyrgyzstan to pre-Soviet traditions. In doing so, they followed an essentialist understanding of nation in which the congruence of nation and state is desired - every nation should naturally possess its own state (Schmidt 2007: 215-217; Dörre 2014: 91). The history of the Kyrgyz people is not presented as the product of Soviet national policies but as the re-emergence of an ancient nation which has always lived on Kyrgyz lands: "Like its neighbours, the post-Soviet Kyrgyz historiography is built on a teleological logic: it is the history of a nation marching towards its independence" (Laruelle 2012: 40). Gaps and contradictions are more or less ignored as "Kyrgyz history is not particularly well equipped to provide the basis for a sense of national awareness" (Lowe 2003: 121). In the nation-building process the Kyrgyz history promotes an idealized version of 'Kyrgyzness' and presents the Kyrgyz as an ancient people with a proud and successful history (Lowe 2003: 121).

This construction becomes very evident in the festivities of "2200 Years of Kyrgyz Nationhood" introduced by former President Askar Akayev, who played an important role in telling the story of the Kyrgyz and published several books regarding this topic, in 2004 (Marat 2008a: 15-16). This event has its manifestation on the outside wall of the National Art Gallery in the very centre of Naryn. The gallery itself was funded by the local patron Askar Salynbekov in 2001 for the purpose of conveying the Kyrgyz their national heritage. The wall shows identifying symbols like the *boz ui* (yurt), *tunduk* (typical roof bars in yurts seen from the inside), the Kyrgyz flag, and the state seal as well as places that are important in Kyrgyz history like the Tash Rabat and Koshoi Korgon, which also can be found on Kyrgyz bank notes, and also crucial historical figures of different historical eras like Kurmanjan Datca, a stateswoman (!), who reigned in the 19th century, the local hero Koshoi and of course Manas (see following section). Here, the Kyrgyz history is presented in a teleological,

coherent manner: an ancient nation on its way to a developed and industrialized country that still holds its traditions (Fig. 1).



Fig.1: Wall painting “2,200 Years of Kyrgyz Nationhood” at the Art Gallery, Naryn Town.
Photography: Hertlein, 2016

Quite a few of the statues and monuments we found in Naryn Town and Naryn Oblast’ have been built after the independence and often relate to pre-Soviet heroes. Most of them are independence fighters, warriors that defended the Kyrgyz or strong rulers (Lowe 2003: 116). An example is the statue of Aibek Batyr in At-Bashy, which was also set up in the course of the “2,200 Years of Kyrgyz Nationhood” festivities (Fig. 2).

In the context of the creation of shared narratives of history, it is also remarkable that the year 2016 is officially branded as the “Year of Kyrgyz culture and history” as you can see on the poster (Fig. 3). For example, this meant that the local TV station made productions and news regarding this topic. Under the same label the 220th anniversary festivities for the local hero Tailak Batyr, also known as Song-Kol festival, took place at the end of July, including several traditional sports and folklore. Two ways of contributing to telling the story of a Kyrgyz nation.

Besides the Art Gallery, the Regional Museum in Naryn and the museum at the ancient fortification Koshoi Korgon are to be mentioned in this context of narrating a national history as they are placed where local and national history and historical events are presented. The museums set their focuses on different Kyrgyz heroes, local personalities, traditions, art, and folklore. In this way they produce meanings of the nation which are pivotal to the construction of identities (McLean 1998: 244). Also to be mentioned, and this might be put in context of the ‘invention of tradition’, is the Naryn-born ethnographer Amantour Akmatalliev (1934-2009) who is honoured with his own section in the Regional Museum and who “wrote down a lot of Kyrgyz traditions” and “found out a lot about Kyrgyz instruments, food and national clothing” as we learned from a museum employee.



Fig. 2: Statue of Aibek Batyr in At-Bashy.
Photography: Hertlein, 2016



Fig. 3: Posters of the “Year of Kyrgyz culture and history” and the 220th anniversary festivities of Tailak Batyr in Naryn Town.
Photography: Hertlein, 2016

In this chapter, one can see how present ideologies and nation-building processes determine the perceptions of the past. The past is interpreted and can be instrumentalized by the needs of the presence - here, this means the presentation of a shared narrative of experiences and history of a Kyrgyz people living in Kyrgyz territory since ancient times (element I and V following Stuart Hall). Essential characteristics and values which represent the national culture provide feelings of continuity and belongingness (element II). It is very important to note that these narratives are extremely ethnic-centred around the Kyrgyz - the “Year of Kyrgyz culture and history” is about the Kyrgyz history and not the history of Kyrgyzstan and all its ethnic groups.

Manas - the great Batyr

The most important figure that stands in the very centre of the Kyrgyz historical awareness is the mythical warrior Manas whose story is told in world’s longest epic that was orally transmitted (as well as changed and interpreted) over hundreds of years and written down at the end of the 19th century. Manas united the 40 Kyrgyz tribes - represented in the 40 rays of the sun in the Kyrgyz flag - and defended the nation against all kinds of dangers and foreign enemies. His story applies as the foundational myth of the Kyrgyz nation and Manas himself is generally considered as the ‘Father of the Nation’ as an interviewed student told us: “In Naryn, every child says Manas is my ata [father]”.



Fig.4: The seven maxims of Manas in Naryn State University: Unity and solidarity of the nation; International harmony, friendship and cooperation; National dignity and patriotism; Prosperity and welfare through painstaking and tireless labor; Humanism, generosity, tolerance; Harmony with nature; Strengthening and protection of Kyrgyz statehood.

Photography: Hertlein, 2016

In search for a unifying narrative, the interest in Manas increased significantly at the beginning of the 1990s: “For the Kyrgyz government, the Manas epic represented a comfortable option for a national framework” (Marat 2008b: 35). The administration under Akayev promoted the epic and its significance for the Kyrgyz foundation and cultural heritage:

“Akayev argued that every nation has its own ‘genetic code’ that was formed thousands of years ago. The epic, he explained, was a physical representation of this code for the Kyrgyz.” (Marat 2008b: 36; following Akayev 2002: 177)

In this course, the “International Year of Manas” which celebrates the 1000th anniversary of Manas took place in 1995. Places like the airport of the capital Bishkek, streets, and organisations were named after Manas and a governmental committee extracted seven maxims mentioned in the epic and included them in the official state ideology (Marat 2008b: 34). Those seven maxims, are popularly placed in schools and universities and are largely known, as a student told us: “There are seven virtues and we had to learn it and to remember it by heart. When we were woken up at night, we could tell them”. As you can see in Figure 4, these maxims are clear instructions and emphasize what it means to be Kyrgyz. The Manas epic is also an important instrument in the national education as Manas is regarded as a moral role model. A whole academic discipline, called Manasology, is dedicated to the studies of the Manas epic and Manas’ deeds. In an interview on the significance of Manas, a doctor in Philology, who wrote her dissertation on the etymology in the Manas epic, told us that “Manas was a very smart and strong person (...) and plays a very important role in education. He is a teacher for the Kyrgyz people because he was very wise”. This is also

interesting because schools and universities generally play a major role in establishing a common national identity in centralized nation states due to the coherent universes of experience created by uniform curricula and standardized diplomas (Anderson 1996: 122).

The often referred-to “Manas-times” are surrounded by a certain nostalgia. The Manas epic contains a variety of cultural and geographical information about the Kyrgyz and their neighbours (Köçümkulkizi 2005: 2). In this “Manas-times”, imaginations about an idealized pure, original people found its projection screen: In those times, every person allegedly followed the rituals which currently are perceived as Kyrgyz traditions, simultaneously “freedom and justice reigned”. These nostalgic ideals are in some sense also the goals for the future, as we



Fig.5: Poster with Manas-poem in Naryn Town. Photography: Hertlein, 2016

heard in interviews that many Kyrgyz wish for a strengthening and following of Kyrgyz traditions and connect their hopes with that. Following Erica Marat, “the ideology based on Manas encouraged the use of Kyrgyz language and the return of national traditions” (2008b: 39). In our research, we found that in today’s Kyrgyzstan and Naryn, Manas’ heritage is omnipresent in the form of paintings and monuments or in theaters and cinemas. In Figure 5 a poster is displayed with a poem about Manas, Kyrgyz ancestors and their heritage and connections to today’s Kyrgyzstan.

Manas and the epic come along with a specific significance for ‘Kyrgyzness’ (element II). They are pivotal in the system of cultural representation and form the base for a shared descendant myth (element IV). As one interviewed student of Manasology put it: “Identity and Manas go together. Without Manas, there would be no Kyrgyz nation today”.

Traditions, symbols and semiotics

An important aspect of nation-building processes in post-Soviet Kyrgyzstan is the recourse on traditions and symbols, as well as the redefinition of identity-forming semiotics. Some of the aspects we found on this matter will be presented in the following section.

Our findings demonstrate that the omnipresence of the Manas epic serves as base for many traditions. Sets of Kyrgyz traditions related to the epic are placed at prominent places in universities and schools. As we have learned in interviews and informal conversations, the description of many parts of the daily life find entrance in the current Kyrgyz way of life. The already mentioned value of the nomadic life in yurts (Fig. 6) seems to be an integral part: An interviewee claimed that every family in Naryn has at least relatives living seasonally in yurts, herding animals, and maintaining parts of their ancestors’ lifestyle. It is also worth noting that strong differences to other nations and their traditions are drawn. Yurts serve as good examples: We were told that Kyrgyz yurts follow a given construction, consist of certain materials and differ strongly in these points from those of their neighbours (as Chinese yurts which are built with metal bars). This shows how a certain national

uniqueness is constructed. The mentioned Manasologist referred that the production of handcraft arts and *shyrdaks* (traditional felted carpets) are described in detail in the epic of Manas as well. Traditional music and arts as playing *komuz* (traditional Kyrgyz stringed instrument) or the now again popular traditional dance *Kara Jorgo* which celebrates horse-riding, the 'Kyrgyz way of living' and the Kyrgyz landscape (Fig. 7) can allegedly be traced back to Manas-times and are still taught that way. On site it became clear how strongly these traditions determine the public image. Just to name a few examples: famous *Manaschi* (singer of the epic of Manas), *komuz*-players and other artists are present in everyday life in Naryn in form of small monuments, busts or images.



Fig.6: *Boz ui* placed in the center of the Art Gallery, Naryn Town.

Photography: Hertlein, 2016



Fig.7: Kyrgyz girls dancing the traditional *Kara Jorgo*.

Photography: Hertlein, 2016

Furthermore, the *Shyrdak* Festival was held in At-Bashy to promote and present the Kyrgyz national identity, although, at the same time, it serves as promotional event for the country in the matters of tourism and rural development as it was promoted by the German Gesellschaft für Internationale Zusammenarbeit. In this case, it is interesting "how tourism and nationalist policies are often complementary, especially in promoting a sense of historical past and reviving cultural heritages" (Palmer 2007: 647) and it remains unclear to what extent the festival was solely meant to celebrate Kyrgyz culture or to commercialize it as an activity for economic development. However, since it was only the 6th traditional *Shyrdak* Festival, Hobsbawm's notion of the invention of tradition comes into mind.

Another example of the promotion of traditions is the field of clothing. Kyrgyz people - or at least the ones who are affiliated to traditions and the 'Kyrgyz way of life' - traditionally wear a head cover: the *kalpak* (felted hat) for men and the *joluk* (headscarf) for women. In 2011, the former president Atambaev invented therefore a new holiday. On May 3, the whole country now celebrates the official *kalpak*-day. Again, traditions are singularly emphasized and the constructive character of identity-building is obvious. The response of those kinds of invented traditions differs in rural and urban areas. In rural areas, the perception of lived traditions was much higher.

Not only traditions represent the Kyrgyz identity. The public space is full of symbols that refer to the traditional Kyrgyzstan, but also demonstrate the constructivist character of this whole nation-building process. As Schmidt (2007: 216) has pointed out, in many places

attempts were made to construct Kyrgyz identity. The already mentioned Kyrgyz flag is a good example. The flag and its color reinterpret old Soviet symbols. Lowe states that the red background of the flag, the former communist color, today represents the color of Manas (Lowe 2003: 116) or as an interviewee told us the color stands for the braveness of the people. Furthermore, a Tunduk (roof bars in yurts) is in the center of the flag to symbolize the nomadic lifestyle of the 'real' Kyrgyz people (Schmidt 2007: 216). The flag's 40 sunrays represent the 40 mythical Kyrgyz tribes Manas unified. These symbols are mainly representative and inclusive for the Kyrgyz people, but exclusive for the non-Kyrgyz populations of Kyrgyzstan (Lowe 2003: 216; Schmidt 2007: 215-216). The seal and the hymn of Naryn as further symbolic elements will be discussed in the following section.

The use of the Kyrgyz language is a critical issue in this context as it is a significant marker of identity and one of the main criteria in the construction of nationality. The Kyrgyz intelligentsia already started to challenge the dominance of the Russian language in the 1980s (Lowe 2003: 118). In 1993, the Kyrgyz government further promoted the Kyrgyz language and established it as the only state language to be used in political institutions, although Russian was reintroduced as a second state language in 2001 (Schmidt 2007: 218; Dörre 2014: 92). "The Kyrgyz language (...) should be supported as necessary to the enhancement of independent sovereignty and the fortification of Kyrgyz national feeling" (Lowe 2003: 118). This ethno-nationalist language policy contributed to the discrimination and disintegration of non-Kyrgyz who partially did not speak Kyrgyz. In Naryn, we found out, schools shifted from Russian to Kyrgyz as the first language to be taught in last decades. Although people in the city are mostly bilingual, the Kyrgyz language is prevalent; in the rural areas most people only speak Kyrgyz. This is due to the ethnic homogeneity and the rural character of Naryn Oblast' which also led to the impression of Naryn as the 'real Kyrgyzstan'.

Finally, the 'Kyrgyzification' in terms of symbols and semiotics becomes obvious when looking at the public space, its places, letterings, and signs. The governments of the past years have vehemently tried to push the Russian part of Kyrgyz history into the background (Schmidt 2007: 217). Formerly prominently placed (Lenin-)statues were relocated to quieter areas and substituted by new monuments (of Manas). Also the renaming of streets is a popular means of reorientation. It should be pointed out, however, that these proceedings are, above all, measures from the public side. This 'kyrgyzification' (of public space, semiology, toponymy) from official side is a further mechanism of producing a collective sense of national identity (Dörre 2014: 94). Although, in a lot of cases the people we met were still familiar with the old names and used them. Therefore, in public space and in public life, clear references are made to the government's desired and promoted identity, in which the twentieth century is particularly reinterpreted.

Also on banknotes - as indicated above - particularly Kyrgyz localities are taken up, so that the Soviet past is pushed back by the daily facing of actual history. The variety on banknotes is far-reaching: it stretches from the so-called beginnings of Kyrgyz history, with Manas and its followers, to modern buildings which represent the contemporary progress of the country - under omission or reinterpretation of the years under Russian dominance (Schmidt 2007: 216-217).

Following Hall and Hobsbawm we could identify invented traditions (element III) which affirm to be old ones but are in fact newly placed and promoted ones. The goal of this placement of ritual proceedings is the indoctrination of specific behavioral practices leading to a unified people with same principles and customs. The mentioned measures should strengthen and especially encourage this procedure.

Naryn - 'the real Kyrgyzstan'

In addition to the oblast' Talas, Naryn is considered 'the one real Kyrgyz area' within the country. More than 99 % of the population of the oblast' is considered ethnic Kyrgyz (Datenbank des Statistischen Komitees der KG 2013: 6). That "in Naryn everyone speaks Kyrgyz", as an interviewee told us, is one further reason for this perception. Other parts of the country are much more multilingual and ethnically mixed. In Naryn's villages other languages than Kyrgyz are partly not even understood. In our research we found several examples for this back-to-the-roots character of the local identity when informally interviewed people emphasized the value of nature and traditions for being Kyrgyz. A primordial understanding of ethnicity and nation is underlined for instance by the seal and the hymn of Naryn as official representations of local identity.

"[They] can be seen as linking the modern Kyrgyz Republic to the physical landscape and a simplistic and comforting nomadic past. Both are essentially exclusive and glorify the Kyrgyz people rather than the inhabitants of Kyrgyzstan." (Lowe 2003: 216)

The emphasize of the nature and its beauty, the people, and their traditional and guest-friendly mind-set as well as the ancient roots in the region are fitting into Hall's understanding of primordality.

Besides the already mentioned museums, Naryn Oblast' holds important historical sites which have high influence on the national perception of identity and play an important role in the national narrative. Places like the ancient caravanserai Tash Rabat (Fig. 8), the fortification Koshoi Korgon and the lake Song Kul are anchored in the Kyrgyz collective memory. These sites of ancient buildings, defending fortresses and huge battles are linked to scenes of union, freedom and peace. In this way, today's claim for those places is underlined through historical events and a continuity of Kyrgyzness is presented (Dörre 2014: 93). Furthermore, a lot of idealized monuments can be found in Naryn Oblast'. Lots of hero statues - the Batyrs (heroes) of ancient times - are represented in public space such as Koshoi and AibeK Batyr in At-Bashy and the Naryn-born hero Tailak Batyr in the West of Naryn Town (Fig. 9). But Naryn is also home for younger symbols of history and identity. The At-Bashy water reservoir near Dostuk - a national symbol of modernisation and technology - represents Kyrgyz development and progress.

But the latest past is also taken up in detail. Well-known (local) people - Manaschi, musicians, writers, dancer, actors, teachers and scientists - are placed in public space on images or busts and function as role models. It can be stated that the whole Naryn Oblast' represents the Kyrgyz identity. However, Naryn Town shows less aspects of 'real' perceived Kyrgyzness than the villages do. A look at Kyrgyz banknotes underlines this perception of emphasis on Naryn within the national narrative. In the previous sections, it was already indicated that some places entered public consciousness by being placed on several

banknotes. The mentioned places are thereby pushed into the official awareness. The ancient caravanserai Tash Rabat is placed on the 20 Som note, the Dostuk Dam on the 100 Som note and the fortification of Koshoi Korgon on the 200 Som note.



Fig. 8: Entrance of the ancient building of Tash Rabat.

Photography: Hertlein, 2016



Fig. 9: Statue of Tailak Batyr in Naryn Town.

Photography: Hertlein, 2016

It is undeniable that most of the historical sites and symbols are again focusing on especially Kyrgyz events and emphasize the Kyrgyz narrative of history and identity and not a narrative of all ethnic groups living in Kyrgyzstan. This emphasizes the continuity and timelessness of the national identity (element II), “the essential of the national character remain unchanged through the vicissitudes of history” (Hall 1994: 614). Furthermore, we could again identify traces of Hall’s fifth element of national identity construction: the idea of a pure and original people living on its ancestral territory. This element (V) includes as stated above a certain nostalgia by emphasizing on Kyrgyz people (and thus Kyrgyz identity including elements of religion and the past) which is fully taken up when considering the correlation of Kyrgyz people with their surroundings. But furthermore, this aspect as a nation-building element leads in parallel to an exclusion of minorities. We could not identify a lot of efforts undertaken to integrate further ethnic groups into the one big Kyrgyz narrative.

In this context, it should also be added that the official revision of the riots in 2010 follows a clear line. The design of the riots’ monuments is very similar in different places that we explored in Naryn, At-Bashy and Bishkek (as far as this could be explored in the capital city): Dark pillars breaking in two, threaten to crush the (Kyrgyz) people and to split the country. The design shapes again the collective memory and tells an official version of the riots - which was not explored deep enough within this field research. However, here again, we assume an exclusive character of the riots' narrative excluding non-Kyrgyz minorities' perceptions, wants and needs.

Challenged identities?

Although the breakdown of the Soviet Union was more than twenty years ago and the above mentioned strong promotion of national identity, a lot of testimonies of the Soviet past can be found in Naryn. Every visited town showed monuments of the former hegemony. Important historical events with a great significance in creating Soviet identity such as the

Second World War - "the Great Patriotic War" - and the Afghanistan War are represented in monuments, park names and public space in general.

The perception of the Soviet past is ambivalent. Positive aspects of the past are integrated in the peoples' mindset - as following sentence which we heard quite often shows: "We had a good economy, but we were not free." Today a big amount of negative aspects are reinterpreted and linked to positive feelings. For this reason, the past can even be reinterpreted if needed. A very catchy example is the "Welcome to Naryn" sign - a former Soviet testimony with hammer and sickle - which now is interpreted as follows: "everybody in Naryn will go to work and work hard".

The Soviet past should be overcome and maintained at the same time. The past is perceived as value creating and is associated with equality between people. In Naryn's Art Gallery a *shyrdak* (Fig. 10) representing the fifteen former Soviet Republics and their friendship is exhibited. The local Soviet representative Jukeev Pudovkin is still regarded as an important part of local history as an exhibition in the local museum shows. This indicates that the Soviet-past is also perceived as national legacy. On the contrary, the already mentioned renaming of streets is one of the measures to overcome the Soviet past. The government tries to emphasize on new values and national heroes. Lowe describes this process as follows:

"Unlike the experience in the other Central Asian states, a measured acceptance of the immediate past and not an attempt to erase it, has been a subtle element of the nation-building process." (2003: 122)

Not only the Soviet past is challenging Kyrgyz identity: The role of Islam cannot be ignored but should be considered as secondary important as following quotation shows: "We are Muslims, but we are Kyrgyz." It is tried to integrate beliefs and ritual practices into a new combined Kyrgyz identity which is rooted in a traditional Kyrgyz understanding and integrating further identifying elements. Lowe says in other words: "Islam is an important means for ethnic Kyrgyz to identify with their nation and history, but it is only one element in a complex mesh of identities" (Lowe 2003: 122). Additionally, Islam is not really a fitting element for the construction of a delimiting national identity as the neighboring countries follow Islamic beliefs as well (Schmidt 2007: 221).

In the center of Naryn Town the value of Islam's role can be seen on several posters which are presented at prominent places in the city. One poster (Fig. 11) shows different states of women's clothing and covering and asks: "Oh my Kyrgyzstan, where are you going?" This leads to the impression that Islam gains in importance although the government does not intend that the influence becomes too strong. This is also supported by the fact that the government encourages the Islamic heritage by promoting the construction of mosques and the introduction of Islamic holidays (Schmidt 2007: 221). Also, Manas is pictured as a Muslim, as he was allegedly murdered while reading Namas (praying). Kyrgyz constructed history and religion are influencing each other.



Fig. 10: Shyrdak representing the 15 former Soviet Republics, Art Gallery, Naryn Town. Photography: Hertlein, 2016



Fig. 11: Poster in Naryn Town center questioning: "Oh my Kyrgyzstan, where are you going?" Photography: Hertlein, 2016

Kyrgyz culture is regardless of all those emphases on ancient Kyrgyz traditions not an isolated body. In contrast, Kyrgyz culture is quite successful in combining diverse influences. In public space, the diverse aspects can be well seen from one single point in Naryn: Vis-à-vis of the newly built mosque, which has a Tunduk painted in its dome, one finds the Pudovkin-Park (a monument honoring the local Soviet representative Jukeev Pudovkin). Here we have a good example of three aspects of Kyrgyz identity directly facing each other. This underlines the creativity of the Kyrgyz nation-building process as various aspects from different eras can be mixed, reinterpreted and contextualized in the way they are needed for today's political agenda.

Conclusion

In this paper we presented the results of our research and discussed the historical contexts of the creation of the Kyrgyz nation as well as the post-Soviet nation-building processes that are accompanied by an ethnocentric narrative of history. As shown above, the existence of the Kyrgyz Republic is based on the nationality policy of the Soviet Union and not on the primordial presence of a Kyrgyz people. The concept of national identity was largely unknown in Central Asia as identities were mainly constituted by kinship and clan relations or the way of living. The formation of the Kyrgyz nation and the following development of a Kyrgyz identity have to be viewed in context of the Soviet ideology and its strategies of double assimilation and *korenizaciya*.

After the breakdown of the Soviet Union an ideological vacuum emerged, the superordinate identity ceased and ethno-nationalist tendencies gained importance. Kyrgyz elites tried to gain legitimacy and stability for the newly independent state and therefore promoted ethnocentric nation-building processes. As we pointed out, nations and nationalities are not only political units or concepts, but also ways and systems of representation and mental constructs. These characteristics of representation and construction are pointed out in our results.

We pointed out these characteristics of representation and construction and their traces in Naryn in the results and tried to connect them with the elements of narrating a nation described by Hall. Hall suggests five constructing elements for national identity building: A common pool of shared knowledge and narratives of history (I); followed by an emphasis on origins and traditions (II); the invention of traditions as Hobsbawm notes it (III); the need of a foundational myth (IV); and the idea of a pure and original people rooted in its ancient territories (V). Traces of all of these elements were found during our research in Naryn. A new narrative of history emphasizing pre-Soviet 'Kyrgyzness' was promoted. This reflects an essentialist understanding of nation and constructs an imagination about a primordial Kyrgyz people living in today's Kyrgyz territory since ancient times - this can be seen well in the festivities of "2200 Years of Kyrgyz Nationhood". Symbols, semiotics and traditions that focus on a distinct Kyrgyz culture were promoted in the process of nation-building and can be found in Naryn in many various cases. Especially the Manas-epic, which functions as a foundation myth for the Kyrgyz people, is pivotal for the identity discourse. The epic offers an ideological opportunity for the return of perceived national Kyrgyz traditions and the strengthening of the Kyrgyz language. The perception of Naryn Oblast' as 'the real Kyrgyzstan' is mostly justified by the ethnic homogeneity and widespread usage of the Kyrgyz language. It was claimed that people in Naryn follow Kyrgyz traditions more strictly and additionally, various monuments and historical sites witnessing the Kyrgyz history can be found in Naryn Oblast'. Nonetheless, the significance of the Soviet-past and Islam for the Kyrgyz identity in Naryn should not be ignored. Both aspects, the Soviet-past and the role of Islam, show the hybrid and dynamic character of national identity. Kyrgyz culture is despite all those emphases on Kyrgyz traditions not an enclosed body, but, in contrast, quite successful in integrating other influences as it seems.

To sum it up, many ethnocentric representations of the nation-building process and the narration of the Kyrgyz nation and its history left their traces in Naryn. It should also be mentioned that this ethno-nationalist telling of a Kyrgyz story excludes non-Kyrgyz groups living in the multi-ethnic Kyrgyzstan who make up for more than 30 % of the total population (following the categories introduced by Soviet ethnographers). This is highly problematic: symbolic underrepresentation is closely linked to discrimination and political marginalisation. Ethnic affiliations can be instrumentalized which results in the further acceleration of existing conflicts.

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