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The Rogun Complex: Public Roles and Historic Experiences of Dam-Building in Tajikistan and Kyrgyzstan

Jeanne FÉAUX DE LA CROIX and Mohira SUYARKULOVA*

Introduction

Large hydraulic projects have long been associated with the quest for power: the power to control the flow of water and harness its energy, the power to transform landscapes, turning 'deserts into gardens,' and also the power to mobilise large numbers of people as part of a state's assertion of its

^{*} Dr. Jeanne Féaux de la Croix coordinates a junior research group on the cultural history of water at the University of Tübingen, Germany. Together with Mohira Suyarkulova, she manages the Volkswagen Foundation research project on the 'social life' of the Naryn/Syr Darya. She held a number of research fellowships at the Centre of the Modern Orient (Berlin) after completing her PhD in Social Anthropology at St. Andrews University on the moral geographies of sites in Kyrgyzstan in 2010. Other research interests include age relations, the politicisation of Central Asian migrants in Russia and Turkey, and the effect of energy policies on citizens in Central Asia. Féaux is also an active member of the Central Eurasian Scholars and Media Initiative. Contact: jeanne.feaux@uni-tuebingen.de

Dr. Mohira Suyarkulova is a research coordinator at the Central Asian Studies Institute of the American University of Central Asia (AUCA). She is also an Associate Professor at the International and Comparative Politics Department of the AUCA. Her research interests range widely and include international relations, politics of history writing, politics of transboundary rivers and urban politics, gender politics and fashion in Central Asia. She has held a number of research and teaching positions after obtaining a PhD in International Relations (2011) from the University of St Andrews and is currently a postdoctoral fellow and regional coordinator of the project "The 'Social Life' of a River: environmental histories, social worlds and conflict resolution along the Naryn/Syr Darya" funded by the Volkswagen Foundation. Contact: suyarkulova m@auca.kg

sovereignty. The last hundred years in particular have been characterised by both colonial and post-colonial 'hydraulic missions' that pursued large-scale damming of river systems across the globe. Many large dams became synonymous with nation-building and have sometimes served as icons for the life of entire generations.² Dams have often contributed enormously to the general welfare of citizens by broadening opportunities for food and cash crops production, energy generation and flood control. But many projects have also been driven by the bureaucratic logic of institutions entrusted with hydraulic planning and water resources management, thus often becoming "ends in themselves, rather than a means to an end" symbolising state power (Molle et al., 2009, p. 328). On the other hand, citizens in Central Asia frequently face blackouts and shortage of affordable heating fuel.³ Electricity (and heating) provision in Tajik provinces can be as little as three hours a day in winter, when demand is high. Though statistics are not quite as bleak for Kyrgyzstani citizens, shortages and blackouts are regular occurrences, with particularly dark crises occurring in the winter of 2008-2009 and again in 2014-2015.

This article investigates the history of big dams in Tajikistan and Kyrgyzstan, Rogun being our prime case study. The dam plans have generated differing international contacts in each country such as Russian investments in Kyrgyzstan, Iranian interest in Tajikistan, as well as differing levels of conflict with downriver countries, Uzbekistan in particular. How do the two governments conceive of and talk about these projects to national and international audiences? Most importantly, the paper examines citizens' relationships to ongoing dam projects on the Vakhš and Naryn rivers. How are citizens involved and/or affected ideologically, economically and politically by the projects?

Large dam projects are notorious for failing to deliver on their promised benefits, with huge cost and time overruns, corruption scandals, negative social, economic and environmental impact being regular features. Global anti-dam movements have widely mobilised public opinion and brought

¹ A classic, but also much disputed examination of the political role of water infrastructure is Karl Wittfogel's thesis of 'Oriental Despotism' (1957).

² The Nasserite High Aswan dam is a case in point (Mossallam, 2014).

³ For a wider discussion of 'everyday energy politics' in the region, see Féaux de la Croix & Gulette, 2014.

attention to the catalogue of evils caused by "silencing the rivers" (McCully, 2001). Despite the potentially negative impacts on citizens, in both countries we currently find little public opposition to dam-building. This may not be surprising in the very constrained opportunities for freedom of opinion in Tajikistan, but it seems much more surprising in Kyrgyzstan: here, other natural resource exploitation projects – mining by foreign investors in particular – regularly provoke resistance at local and national level (Gullette & Kalybekova, 2014). Finally, the paper will attempt to establish whether and how the different natures of the Kyrgyzstani and Tajikistani governments affect dam politics, and their consequences for citizens.

Both relatively small in terms of territory and population, Kyrgyzstan and Tajikistan share similar geopolitical positions as the poorest of the post-Soviet republics, with more populous and resource-rich neighbours (Kazakhstan, Uzbekistan) and the 'giant' of China on their eastern border.⁵ Both countries are highly dependent on subsistence agriculture on the one hand, and remittances from migrant workers, particularly in Russia, on the other.⁶ The ISAF withdrawal from Afghanistan is affecting both countries significantly: in the case of Tajikistan, because it shares a long border with Afghanistan, in the case of Kyrgyzstan, because it hosted a US airbase and supply line for over a decade, reaping considerable profit from the rental agreement, until mid-2014. Beyond these similarities however, very significant differences can be found between the two states, and the way they go about hydropower projects. Tajikistan and Kyrgyzstan have in the independence period experienced very different political histories, Tajikistan most notably suffering a civil war, while Kyrgyzstan has coped with two periods of popular unrest and government overthrow. Both governments have periodically shifted degrees and kinds of economic control, co-option

⁴ Further research is necessary to ascertain why exactly this is the case, and whether it has anything to do with water, electricity and gold as specific kinds of natural resource, with particular qualities and moral economies, and actors associated. Some aspects of this question are explored in Féaux de la Croix, Gullette & Wooden, forthcoming 2016.

⁵ Kyrgyzstan 5.6 and Tajikistan 8.4 million inhabitants respectively, both approximately the size of the UK, but much of the land mass uninhabited upper mountain reaches [www.data. un.org, accessed 19.11.15].

⁶ Indeed, Tajikistan and Kyrgyzstan have the sad honour of being the two countries most dependent on remittances in the world with 52 and 31% of GDP respectively, in 2012 (World Bank Migration and Development Brief 11.04.2014).

and censorship towards the population.⁷ For Tajikistan, some authors have argued that the significant displacements and resettlements caused by dam construction (amongst other policies), and public opposition to Rogun was one factor fuelling the outbreak of the Tajik civil war (Schoeberlein, 2000; Sodiqov, 2009 & 2013). In Kyrgyzstan meanwhile, public protests over suddenly rising energy prices served as an important spark to the 2010 uprising in Kyrgyzstan (Wooden, 2014).

Tajikistan and Kyrgyzstan: the Water Towers of Central Asia

Central Asia's water politics are shaped by an uneven distribution of hydro-resources and different forms of political and economic power between upstream and downstream states. The two upstream countries of the region are united by their geographic position as the 'water towers' of Central Asia: fed by glaciers, both the Tajikistan's Vakhš and Kyrgyzstan's Naryn rivers are major tributaries to the Amu Darya and Syr Darya. These large rivers in turn form a water basin emptying into the Aral Sea. Dams on both rivers have played a role in the environmental disaster of the drastic shrinking of this sea, by allowing for river management schemes that diverted flows into irrigated agriculture, so that little of it reached the Aral Sea.⁸

Water and energy infrastructure projects in both countries have Soviet roots in the concepts and ambitious engineering plans that were developed from the thirties. In the Soviet period these were part of a significant modernisation program, that included literacy and settlement campaigns, but also the supply of electricity, particularly through ambitious hydropower projects. In Tajikistan, the Nurek dam was completed in 1982, with further dams immediately scheduled upstream (Daškevič, 1974; Davidiânc & Tarasevič, 1980; Černyš, 1981).

⁷ It would be very interesting to explore the roots of such differences in the Soviet and pre-Soviet period, but this goes beyond the scope of this article.

⁸ The drying up of a large portion of the Aral Sea over the last half century has produced a host of policy initiatives and analyses, since the first broad public discussions of the issue in the *glasnost* era. For recent analyses see ICG, 2014; Jozan, 2012; Guenther & Loy, 2013.

⁹ For a comprehensive examination of Soviet hydropower and water infrastructure projects and their social and cultural context, see Gestwa, 2010. For histories of dam-building in Asia, see Féaux de la Croix, Bromber & Lange, 2014 or Nüsser, 2013.

Nurek and Rogun lie on the Vakhš River, a major tributary of the Amu Darya, which is a central water artery for Uzbekistan, slicing through the West and allowing for cotton and other agricultural irrigation crops. Uzbek-Tajik relations have been consistently strained in other areas too, sometimes to breaking point at border crossings, over the ownership of fabled cities such as Bukhara and Samarkand, and the associated glorious history. These cities are now on Uzbekistani territory, with the majority of the population Tajik-speaking (Suyarkulova, 2011). Uzbekistan, in line with international recommendations on common river basin management, claims a say in upriver dam building, and fears that Rogun will mean both a temporary and also permanent reduction in the Amu Darya flow (Panfilova, 2014). Tajikistan on the other hand claims that it is not even fully using its presently allocated water quota to these rivers, and that it is operating entirely within its rights, not disturbing the balance of water to the West and North at all.

Like the Toktogul cascade that came fully online in the mid-eighties in Kyrgyzstan, Nurek and associated dams supplied most of the country's electricity needs. Further Soviet plans for large dam-building projects on the same rivers have been disinterred in the second decade of Kyrgyzstan's and Tajikistan's independence. The Tajikistani Rogun dam is the largest of these upstream projects now being attempted (predicted generating capacity of 3.6 MW). In Kyrgyzstan, Kambar Ata 2 is already feeding electricity into the grid, with the larger Kambar Ata 1 (1.9 MW production predicted) currently seeking investors. A further series of medium hydropower stations on the uppermost reaches of the Naryn were contracted to a Russian-Kyrgyz joint venture in 2013 and then planned to come online from 2019 onwards.

After outlining our research methodology and sketching the regional context of dam-building, we will discuss the late Soviet debates and discourses over building Rogun. We then contrast these with discourses over the last decade. Current expert opinions in Dushanbe will be examined, as well as attitudes to the dam in Rogun, the town built for Soviet dam workers. Finally, we outline relevant aspects of the Naryn dams, before contrasting the two cases in our conclusion.

Methods and Ethics in Dam Research

This chapter discusses the Rogun case study in depth, with significant comparative material discussed on the contemporary Naryn dam projects.¹⁰ Our comparison is based on joint ethnographic and archival work in summer 2014 as well as ongoing media analyses and previous material on the topic gathered by both authors (Féaux de la Croix, 2010, 2011; Suyarkulova, 2011, 2014). In Dushanbe, we screened archives for news items and public-oriented literature on dam-building going back to the sixties (including school and university textbooks) and grey literature on the topic. We conducted a number of expert interviews, and spoke to citizens and workers in the town of Rogun (Roghun in Tajik) that was built for dam workers in the eighties. There were several significant constrictions to our research: we happened to visit Tajikistan just a few weeks after three people in Khorog, an important town on the Afghan border, were shot by police. There were riot-like incidents and attacks on government offices in response. Government agencies were very concerned with controlling the region, including access by foreign research teams to speaking with locals. During our stay, our Tajik colleague Alexander Sodiqov, who was working in Khorog for a British research team, was arrested and then charged with espionage. In this context, we needed to be very cautious about our own, but more importantly, about the safety of Tajik citizens who chose to engage with our research. Although we found a wide variety of people willing to speak to us on Rogun (always on condition of anonymity), we were forced to break off all contacts in the last few days, because of too much attention from local security services. In order not to endanger our informants, we avoided asking ordinary Tajik citizens directly about their opinion on Rogun, unless we had a well-established and trusting relationship. We were not able to speak safely to people directly affected by resettlement programs.

Instead, we sought conversations with energy companies and ministries, water agencies and NGOs, as well as enquiring about the history of Rogun town. Repeated requests for literature and interviews with the ministry of Water and Energy, as well as the energy company Barki Todžik were turned down. Our nevertheless varied and very positive contacts with residents and

¹⁰ A more detailed comparison can be made in conjunction with Féaux de la Croix, Gullette & Wooden, forthcoming 2016.

dam workers were, however, cut short by unwelcome, but also predictable attention of the security services. For the same reason, we have in no way attempted a follow-up. These constraints and fears are, of course, telling on the nature of state surveillance and anxiety in the current context, but also specifically on the Rogun building project.¹¹

For the Kyrgyzstani comparison, in 2014 Jeanne Féaux de la Croix repeatedly visited the Naryn region in Kyrgyzstan to work on a participatory film project about water issues with the film-maker Mirjam Leuze. Dialogue and prior approval of the project was also sought with the ministry of Energy and Industry, the dam-building company *RusHydro*, as well as local state representatives. The project was carried out in the village on whose territory the first of the medium-sized Naryn dams is under construction, and revealed a number of tensions and local concerns around water and energy production. As in Tajikistan, fieldwork had to be broken off because of significant police interference.

Our initial curiosity was to see in how far water infrastructure projects and state-society relations might be mutually constitutive. Consequently, however, it became apparent that no clear boundary between state and society could be drawn, as such categorisation follows a binary logic neither of us was comfortable with. Thus, for instance, John Heathershaw has argued convincingly that, rather than seeing the new states of the region as 'deficient' or 'hybrid' forms deviating from the normative ideal state in the Weberian sense, they should be viewed as 'global performance states':

Such statehood is not fake – not a façade that conceals an underlying reality. However, it is not discernible if one insists on imposing dichotomies of state versus society, idea versus system, or inside versus outside. This performance and global statehood is perhaps particularly acute amongst postcolonial states that have only recently gained independence (Heathershaw, 2013, p. 32).

Further, it is important to underline that in each case, there are slightly different sets of actors involved (e.g. an aspiring government dynasty, in the case of Tajikistan's president Rahmon), who are also able to act differently. Similarly, in each case, companies, international organisations and different clusters of citizens are involved in different ways. The divide between two

¹¹ In our archival searches in the National Library, we found clear evidence of specific media articles on Rogun being removed, either by irresponsible library users or censors. There is no way of dating these interferences.

often reified entities of 'state' and 'society' is in practice often problematic to crystallise out of the different positions people take, according to the situation. Thus, even a former state employee speaking on behalf of a company close to state interests in one setting, can be sceptical of certain policies in another context. For example, one such employee commented:

I did not like the way this campaign was organised by our bureaucrats. [it was] arbitrarily decided that ten percent of my annual earnings (which was a lot at the time!) were to be spent on Rogun shares. The way it was worded it was clear that if one does not buy the required amount you might lose your job. As a patriot I would buy a couple of shares, but I was forced to buy out almost half of Rogun. I will tell you one thing, I can cover the walls of my apartment with the most expensive shares of Rogun – that's how much I had to purchase!

Keeping such examples in mind helps us avoid reifying the 'state'/'citizen' divide.

Soviet-Era Celebrations of Damming the Vakhš

The Soviet 'hydraulic mission' in the region was driven by the pursuit of two main goals – increase in the areas used for irrigated production of cotton, and generation of cheap hydro-energy. These two needs were not seen as being in competition, but rather as two sides of the same coin when the region was integrated as a single economic whole, enabling exchanges of water and energy across administrative borders of republics. Thus, both producing the 'white gold' of cotton and the 'white coal' of hydro-power were the main arguments for the construction of Nurek in the sixties. ¹² Nurek and Rogun were conceived together, as dual-use projects that would both help provide cheap energy for industry – indeed a whole new industrial complex grew out of Nurek in the South of Tajikistan, including a major aluminium plant and a chemical plant – and expanded cotton production (Kalinovsky, 2013, pp. 209-217).

The review of press coverage and public relations material dealing with the period from the sixties to the present day reveals certain 'high points' in publicity campaigns, and trends within these high points. In the sixties, the

¹² Artemy Kalinovsky has detailed the sustained struggles between different experts in Tajikistan and Moscow over whether and how Nurek should be constructed in the post-war period (forthcoming 2016).

coverage of the great construction sites of the Soviet Union (of which Nurek was but one) was prominent in the press and the literature (e.g. Gorbačev, 1964; Markov, 1962; Kharisov, 1961; Korobova, 1968; Sabirov, 1962). Such publications usually emphasised the construction of Nurek as demonstrative of the scientific-technical progress and an epitome of the liberation of the peoples of the Soviet East, a promethean triumph over the forces of nature lifting humanity out of darkness, ignorance and abject poverty.

Inspired by the early Soviet utopian visions of human reason and ingenuity eventually overcoming social injustice, ignorance, disease and even death, the hydraulic projects sought to transform nature alongside human nature and society. In a popular science and technology magazine, engineer Semën Kaližnûk, the head of construction at Nurek, described the Vakhš river as "wild and unruly"¹³ and in need of taming:

Central Asian rivers often change their course. Especially in the spring and summer, when the glaciers melt, when they run with great speed carrying millions of cubic meters of sand and silt. Once the flow recedes, the liquid mud covering the ground and drying out in the sun, makes even the most fertile land barren. Such is Amu Darya. This is why its second name is $D\check{z}ejkhun$ — meaning "wild." It once played a trick on the builders of the Karakum channel — it turned right and departed by hundreds of meters from the head channel. But the channel followed, keeping the "wild" one on the leash. And it holds her firmly (Kaližnûk, 1963, p. 3).

This narrative of Soviet people's conquest over the forces of nature, the taming of the primal energy through labour is traceable in the media reports and popular-scientific literature we have reviewed in the libraries and archives (Mirfozilov, 1978; Morozova, 1976; Tabačnikov, 1980; Karatygina, 1982; Špunâkov, 1983). In the Soviet period, the public discourse on dams' construction was permeated by the celebration of the technology and human labour transforming nature (Sabirov, 1962; Gorbačev, 1964; Morozova, 1976; Karatygina, 1982). A whole range of literature targeting various audiences, from illustrated children's books and books for young adults, photo albums and brochures made the produced nature of the dams very visible and comprehensible (Markov, 1962; Daškevič, 1974; Davidiânc & Tarasevič, 1980; Makhonin, 1985). These publications describe in great detail the technology behind the construction of the dam, explaining both the

¹³ Vakhš also literally means "unruly" or "turbulent."

science and the work that went into it. Another important aspect of Soviet discourses on dams was the genre of the 'labour biographies' of workers who distinguished themselves by excelling in highly skilled and arduous labour. Whole articles and books were dedicated to the heroes of socialist labour working as crane-operators, large truck drivers (*belazists*, from BelAZ – short for Belorussian Auto Factory's giant trucks), brigadiers of the builders' teams (e.g. Karatygina, 1982).¹⁴

Late Soviet Critiques of Damming the Vakhš

Rogun is mentioned as the next great effort and achievement to come after Nurek in the same superlative language up until the late eighties, when *perestroika* and the policy of *glasnost* really came into force and journalists as well as the wider public started questioning certain aspects of the project, in particular the ecological and human costs of inundating the Vakhš valley (Suyarkulova, 2014). Ecological organisations, residents from the flooding zone, and representatives of the intelligentsia's technical and scientific circles expressed their principal opposition to the construction of Rogun or reservations about the reliability of the proposed technology. In the eighties, the locals who were expected to relocate to make room for Rogun reservoir opposed the policy. There was a short-lived debate around the issue of involuntary resettlement of people (Sodiqov, 2013). One interlocutor in Rogun town told us of local opposition to the dam project in this period, which is supported by archival and newspaper sources:

The *Muisafeds* [literally, 'the white-haired,' meaning 'elders'] from the surrounding villages travelled especially to Moscow to plead that the dam height be lowered, because [should the dam be constructed at the projected height] it would flood all the villages nearby and most importantly the graveyards. And the centre agreed to lower it, but then the Union ended and the war started... (Rogun, June 2014).

The concern about disturbing the peace of these cemeteries was echoed in the poetry of the famous Tajik poetess Gulruhsor Safieva, who hailed from Âkhš village in Rogun district, which was to be inundated. In her poetry she continuously refers to her home village as the "small motherland," the sacred place of her mother's grave that brings peace to her soul

¹⁴ Indeed, some elite workers' dynasties, though no longer celebrated media stars, continue to be influential in Nurek to this day (Kalinovsky, 2015).

(Safieva, 1982, pp. 92-95). It is the loss of homeland and the graves of the ancestors that became the lament of her later poetic protest to the dislocation associated with the dam construction.

The most vocal critics of the project were using anticolonial rhetoric calling the resettlement policy the "tactic of an invader." In 1988 an article appeared in *Pravda* entitled "The Dam," which severely criticised the project as "gigantomaniac" and made a case against the construction of the dam at the planned height (Latifi, 1988 cited in Mirzorakhmatov, 2011). Among other aspects of the project, the author criticised the authorities for the plans to move people from Rogun to territories not suitable for accommodating the new settlers (Mirzorakhmatov, 2011). This article and others sparked serious discussions regarding the project, which resulted in the review of the project by a specially appointed committee of experts within *Gosplan*. A short note in *Sel'skaâ Žizn'* [Village Life] newspaper reads:

Dushanbe. The Bureau of the Central Committee of the Communist Party and the Presidium of the Council of Ministers of Tajikistan adopted a decision to lower the height of the Rogun dam and consequently the upper line of the reservoir by fifty meters. This will preserve 37% of the agricultural land that was to be inundated and will allow two thirds of the residents, who were preparing to resettle, to stay in the area. This measure was brought about by insistent demands of the population of the mountain regions around the HPP site and the association for culture and ecology (July 12, 1989).

Rogun Debates since Independence

If built as planned, the walls of Rogun will top the current Nurek world record at a height of 335 metres. Construction has been intermittent since 1982, depending on available funds, commitment and the availability of materials and technical personnel. During the Tajik civil war, not only did construction cease – unsurprisingly – but a flood wiped out much of the infrastructure and tunnelling built before 1991. The town of Rogun and building site were also occupied by armed forces opposed to Rahmonov, causing fears that sabotage might endanger areas downriver. After the peace agreement in 1997, when Emomali Rahmon(ov) rose to power from the dominant faction, it took a decade before ambitious talk of construction regained momentum. There are currently two shifts of approximately 1,000 workers serving at the construction site, a tenth of top-effort periods

in the eighties. Cost estimations vary enormously, with the World Bank recently projecting a cost that would top the country's total yearly GDP (World Bank, 2014a). In June 2014, none of our respondents in Dushanbe, whether at ministries or water and energy institutes were willing to name a full cost estimate. Although Tajikistan has widely sought international investors, it is hampered by the reputation of endemic corruption, and the vociferous opposition of downstream countries Kazakhstan, and most especially, Uzbekistan.

According to the water specialists we interviewed, one of the main arguments for constructing Rogun, is as a bulwark for saving Nurek's generating capacity. Over the years, sediments accumulating in the reservoir have decreased the usable reservoir volume of Nurek by 50%. Rogun is to help reduce sediment deposits in Nurek, thus preserving its capacity for energy production. As a hydro-engineer and ecologist, one of the few experts to voice serious reservations about the desirability of constructing Rogun at the projected height, commented: "If we do not build Rogun, we will lose Nurek – no doubt about that" (interview in Dushanbe, June 2014). In this self-referential logic of hydrocracy, a new dam is necessary in order to resolve the sedimentation issue of a dam built earlier downstream.

The Tajik government has been extremely active in promoting Rogun, both towards domestic and for foreign audiences. After the project was resurrected in 2009, the late *perestroika* era criticism regarding Rogun was dismissed in the Tajik press as defamation and unreasonable protest on the part of the opposition leaders. Any objections thus became illegitimate, or even unpatriotic by association (this atmosphere was also supported by an interviewee, who has reservations about the project but is often criticised for his 'unpatriotic' stance). "Rogun is not only a source of light, but a national honour and dignity," President Rahmon said in his address to the nation in January 2010 (UPI Energy, 2010). There are a number of new books and regular articles in the press vaunting the advantages of building Rogun, as well as public poster campaigns, often depicting President Rahmon alongside the dam.¹⁶

¹⁵ It should be noted here that silting will also affect the new Rogun dam. Over the course of a few decades, it will significantly lose generation capacity by losing space in the reservoir (World Bank, 2014a).

¹⁶ Avesta.tj news website has an entire section dedicated to Rogun-related news and opinion pieces.

In sum, water has come to be perceived in almost metaphysical terms. "Water is Life" is a common slogan, seen on billboards all over the country (see picture in Annex n°9). The Tajikistani government has consistently vaunted Rogun as a magic bullet solving Tajikistan's economic woes, with blame for the as yet slow progress on dam-building planted firmly on the 'enemy' neighbour, Uzbekistan. "Rogun is our all – motherland, faith, future, unity": this is how President Rahmon addressed the population, calling on them to support the construction of the Rogun. According to him, such support would be "holy and noble." As the President of the International Forum of Tajiks, he also called on all Tajiks in the world to contribute to the drive for the construction of this 'palace of light':

By building Rogun we secure the today and the tomorrow of Tajikistan. Rogun is the great leap forward in the industry and economy of the state; it means warmth and heat in every Tajik household; it means dignified standards of living and social welfare for each Tajik citizen. Support for Rogun is the duty of every Muslim of Tajikistan. We should all come together, tighten our belts and overcome the hardship. I wish us perseverance in this difficult but sacred undertaking (Avesta.tj, 2010).

These celebrations of dam prowess may also be considered in the context of Tajik government decisions in recent years to build the world's biggest flag-pole (funded by TALCO), largest *čojkhona* (teahouse) and the biggest national library in Central Asia. One other important aspect of dam-building in Tajikistan is the TALCO aluminium factory, which purportedly consumes up to 40% of the electricity produced by Nurek, and is a major industrial asset of the country (Trilling, 2014b). Profits are widely thought to flow into offshore accounts of the president's extended family. In conversation with us, TALCO's press officer denied that there would be any effect on aluminium production, once Rogun was completed. It has to be said however, that the company is a clear rival to Tajik citizens' needs in energy use, and receives preferential tariffs. A recent TALCO publicity film also connects both Nurek and Rogun to aluminium.

Government discourses towards international actors tend to highlight other facets, differentiated according to whether potential investors, or a 'green-light' from powerful international organisations such as the World Bank are targeted. The Tajik government has recently even hired Washington

lobbyists (Trilling, 2014a).¹⁷ In addition, the government attempts to profile itself on the international stage by regularly hosting 'best practice' water management conferences, the latest being held in Dushanbe in 2015. Posters and slogans related to such conferences are a long-term feature of major city thoroughfares (see picture in Annex n°10).

This publicity campaign has intensified on the front of seeking investors since the World Bank released its economic, environmental and social impact assessments (World Bank, 2014a, 2014b). The report is primarily positive, highlighting the opposition of downstream countries as the main downside.

This last period of a 'high point' in propaganda campaign is characterised by reliance on either dry technical language or visual media such as posters, billboards and music videos. This changing relationship between the nature of the dominant media and the message they convey may be attributed to the fact that people can no longer afford books, but also to the fact that the state no longer subsidises the arts nearly as generously. But there is also a clear bifurcation in the tone and arguments directed at international opinionmakers and potential funders, in English, and the rhetoric chosen in communicating with Tajik citizens, in Tajik and Russian. In both kinds of rhetoric, there is a noticeable shift between Soviet-time and post-independence in discourse in terms of visibility of labour. The current media coverage of the dam tends to conceal the labour and the produced nature of the dam, often talking of water and its energy in almost metaphysical terms (e.g. Salimov, 2002). These days only the technical experts are expected to possess the knowledge or take interest in how the dams are constructed. Through rendering the labour and the produced-ness of the dams invisible, people are alienated from it. Nevertheless, new public forms of participation have been suggested: Tajik citizens were called upon to make significant sacrifices for the sake of the Rogun project in the form of compulsory purchase of company shares, as our TALCO interviewee noted.

The 'magic bullet' portrayal of Rogun facilitated a campaign of forced share-buying among citizens in 2009-2010. The majority of state employees, i.e. teachers, nurses, but also students were pressured to buy significant

¹⁷ A variety of videos and websites promoting Rogun can be found online, such as "The Rogun Dam Project" [https://www.youtube.com/watch?v=IA2IPeK hUI accessed 19.11.15].

shares, sometimes to a value greater than an annual salary. This campaign coincided with a number of pop songs and video clips praising Rogun being released. The scheme caused such widespread debt among the population, that the World Bank warned it was significantly damaging the economy. Most residents, even in the president's home town, do not believe they will ever see the value of their shares returned, and see it as a (to be expected) canny scheme to push money into officials' pockets (Ibañez-Tirado, 2013, pp. 86-87). And yet, many citizens advocate the dam as a focus of hope and solution to stagnation and spiralling misery.

Expert Views on Rogun in Dushanbe

We found support for Rogun widely (though not uniformly) reflected in our interviews with water and energy experts in the capital. Quite unsurprisingly, all our interlocutors working at government agencies expressed unreserved confidence in the necessity of the dam construction, dismissing all potential negative effects of the project as manageable or insignificant. The strongest supporters agreed with the 'magic bullet' idea, and saw virtually no draw-backs to the project. More modulated opinions saw Rogun as inevitable, or as the only possible option, despite various drawbacks. An important argument even for the most critical, was 'saving' Nurek. One of our respondents, who works at the research centre on water resource protection, affiliated with the Environmental Protection committee under the government of Tajikistan, even turned the issue of silting of the dam reservoirs into a positive phenomenon, telling us that it improves water quality and keeps

¹⁸ See for example, Afzalšoh Šodiev's song "Roghun" (2010). The brief description on Youtube accompanying the video reads: "Ma'nisaro" Afzalšoh Šodiev is one of the most popular contemporary folk singers in Tajikistan and among the Persian-speaking countries around the world. His songs are about motherland, patriotism, romance and love. His repertoire is based on the late Sherali's poems and the work of other contemporary poets (Gulrukhsor, Gulnazar, Kamol Nasrullo, etc.) and classical ones (Hafiz, Saadi, Bedil, Sayyido, etc.). This particular song is devoted to construction of Rogun hydropower plant in Tajikistan, which is poised to be the highest rockfill dam in the world. Performed on eve of New Year 2010 at Dusti Square in Dushanbe, Tajikistan [https://www.youtube.com/watch?v=MyAu9N1bxJw]. Another example is Qurbonali Rahmon's song also called "Roghun" (2010) featuring the singer and two other vocalists at the construction site appearing next to welders and construction workers, singing "Roghun mesozem, bo ham mesozem" (We shall build Rogun, together we shall build) [https://www.youtube.com/watch?v=udfRxWJfJwM].

all the good top soil residues within the republic's territory, thus preventing it from being washed down into the territory of Uzbekistan (June 2014).

While the outward appearance is that of a universal and unequivocal support for Rogun, privately, people may voice their scepticism about whether the dam should or will ever be constructed. Thus, for instance, a woman working for an NGO shared her reservations regarding the dam project. She said that while she realised that this was necessary for the country's development, it saddened her that several villages in the Rasht valley will be inundated and disappear, together with wildlife and the biodiversity of the plateau. She concluded by questioning the necessity of the dam, saying: "This is purely my subjective opinion, but I think that it would be better if Rašt remained intact. We already have a lot of GES,¹⁹ I think we have enough GES." The most critical voices said they were opposed to Rogun, but declined offering further comment.

The Human Rights Bureau (HRB) has closely documented the government resettlement program of – to date – ca. 10,000 residents from the Rogun area. A further 32,000 removals are planned. The HRB has fairly successfully lobbied for the rights of displaced peoples, such as housing of at least equivalent value. Deputy director of HRB said that in their activities they avoided "political matters" and tried to establish working relations with all the government agencies (Dushanbe, June 2014). Difficulties that resettlers still experience include finding a new livelihood, and absence of electricity and water supply (HRW, 2014, p. 1). Lobbying for their rights has likely been fairly successful because of the government's desire for a clean bill on Rogun internationally, so that they can find co-funders. But what about the opinions of citizens most directly affected by the dam – local Rogun residents and workers?

The Perspective from Rogun Town

We spent several days in Rogun town, established to house dam workers during construction in the late seventies, on a mountain spur at 1,600 metres, overlooking the Vakhš valley and dam site. As many other planned industrial towns of Central Asia, the town attracted a multiethnic population and had a higher standard of living and housing than the

¹⁹ Russian acronym for hydropower station (gidroèlektrostanciâ).

surrounding area, with ambitious plans for parks and buildings, some of which were never finished in the eighties. The town saw a lot of fighting during the Tajik civil war. Previous residents often fled, and the town was repopulated slowly, mainly by Tajiks from other areas. In 2014, the population amounted to 39,886 people.

The main street of Rogun sports a brand new hukumat [town hall and district administration], a new glass-fronted bank and controlled entry to the dam site administration. Imaginative and carefully pastel-painted, late Soviet apartment blocks line the main avenue, with well-cared for flowers and shrubs. Away from the main street, or even within the apartment blocks however, the picture looks very different: damp apartments growing mould, often with no functioning central heating in the winter, apartment blocks half-built in the late Soviet period, but abandoned because of seismic shifts that cracked the concrete. We found the town administration hesitant to engage with our request for information on the town's history, but residents very willing to talk about their connection (and often disconnection) to the dam site. Although none of the residents said so explicitly, we strongly felt that they wanted their story heard and told. Two informal local history museums, established at slightly different periods by two different volunteer curators, tell the story of town and district. The museum established by an older ethnic Russian lady in 1999 in an abandoned apartment, devotes the main section of the largest room to the establishment of dam and town.

The museum creator, curator and care-taker, used to teach physics at the local school and first read about the Vakhš cascade of hydropower stations in *Tekhnika Molodëži* [Technics of the youth], a popular Soviet science magazine. She kept a matchbox-sized diagram of the cascade and recreated it as a large poster in the museum with the help of a local artist. In her commentary on the exhibition she reiterated the Soviet discourse of "taming the wild rivers." She also emphasised the exceptional status of the project, reminding us several times that it would be the "dam of the century," the highest in the world, with the largest underground machine hall. ²⁰ In comparison, the second museum, later established in a very large classroom in the local school, only devoted about one square metre to the dam itself, instead focusing on the rich folkloric collections citizens had

²⁰ On similar alignments of personal investment and 'speaking Bolshevik' in the 21st century at Nurek, see Kalinovsky (2015).

contributed. The two museum efforts could be said to present contrasting views of local history: the first created by a resident continually invested in the Soviet mould of dam-building as bringing progress, the second according the dam a much more minor role, and highlighting ethnic Tajik traditions instead. This reduced role of Rogun dam to Rogun town can also be related to hiring practices at the site. While respondents in Dushanbe often claimed that many people in Rogun worked at the dam, and that it was a relatively wealthy town, we found this far from accurate: perhaps an outdated, Soviet-era reputation. Rather, we found residents complaining that they were purposely kept in the dark about the dam-building process, and that the building companies preferred to bus in workers from other regions for two-week shifts. This meant that, as elsewhere in Tajikistan, a large proportion of (especially male) workers migrate from Rogun to work in Russia. Indeed, since the town was repopulated after the civil war, there are not that many workers from the era of Soviet dam-building still in residence, and able to offer relevant skills. In this sense, Rogun is no longer a 'dam-builders' town. But even among skilled and well-paid workers, we encountered criticism and disappointment. We were, for example, introduced to a former dam-worker who had been permanently incapacitated by a serious accident, received a miserly compensation but dared not – or found it futile – to attempt any legal recourse.

All my life I have worked at all major construction sites in the region and now I am treated like a dog. What they gave me as a compensation is a pittance, and when I went to Dushanbe (Hospital X), they told me I was healthy! Look at me, do I look healthy? (Rogun town, June 2014).

So how does this oscillating picture of state celebration, forced participation, expert or more private critique – but also investment in Rogun – compare with dams built in Kyrgyzstan?

Kyrgyzstan: Public Outcries Over Gold, Muted Opinions Over Hydropower?

The Toktogul cascade of dams built on the Naryn river in the late Soviet period caused 35,000 residents to move from their homes. Moritz Florin (2015) outlines how the project was proposed by the first secretaries of the Kyrgyz and Uzbek SSR, Rašidov and Razzakov in 1960. Under first secretary Usubaliev however, the Toktogul project came under increasing,

if oblique attack by writers and film-makers. As in Tajikistan, counterarguments were mostly raised in relation to lost land, memories and ways of life, rather than direct environmental impacts, or cost considerations. As with other proposed, but unrealised hydropower projects, republican interests of the Kyrgyz and Uzbek SSR increasingly fell apart, with Moscow playing the arbiter that first favoured the Uzbek, and later Kyrgyz point of view. It seems that as far back as the seventies, these diverging interests impacted local border and water management practices, fuelling local quarrels in some cases (Florin, 2015). M. Florin suggests that the Kyrgyz leadership used outspoken members of the intelligentsia to reinforce their viewpoint in Moscow. For example, after a visit to Toktogul in 1976, Baižiev argued:

We have flooded 30,000 hectares of fertile earth in the Toktogul valley, and received water for hundreds of thousands of hectares, and billions of kilowatt hours of electrical energy in exchange. This is no doubt very good. But then these 30,000 will never return... We should not let us be seduced by our power. We can really do anything; resettle seas, turn around rivers, move mountains out of our way. But today those who decide the fate of even the smallest piece of land have to learn to look at this piece not from a bird eyes perspective, not from the perspective of [...] modern airliner, but from the perspective of a space ship. Today this is the perspective that corresponds with the level of our thinking and our possibilities (Baižiev 1976, cited in Florin, 2015)

Unlike in Tajikistan, the Kambar Ata dams that were initiated at a similar period in the eighties, do not seem to have generated nearly as much public discussion or critique: perhaps because Rogun was going to displace a large population, whereas in Kyrgyzstan this difficult step had already been taken for the Toktogul dam in the seventies.

As in Tajikistan, electricity provision and pricing is an ongoing concern for the majority of citizens. This can partly be blamed on lack of investment in infrastructure, but corruption and mismanagement, for example in underhand sales of electricity abroad, are also an important factor. While there has been a general picture of increasing restrictions of free speech in Tajikistan over the last fifteen years, Kyrgyzstan has gone through cycles of government attempts to control the public sphere, with varying degrees of impact. Although many Kyrgyzstanis feel as helpless in the face of widespread nepotism and corruption as Tajikistanis, it is rare for citizens to fear loudly voicing their political opinions in informal situations. *Mitingi*

[demonstrations] and even road blocks or periodic attempts to seize government offices are a common occurrence. One issue that has preoccupied domestic politics periodically, and increasingly so since 2010, are the operation rights and profits of the Kumtor gold mine. Kumtor is Kyrgyzstan's largest gold mine, operated since the early nineties by Centerra, a Canadabased multinational.²¹ Kumtor hit the headlines in 1997, when a lorry carrying cyanide overturned in the local river, used as a water supply by neighbouring villages and emptying into holy lake Issyk-Kul. Public suspicion of the motives and safety of the mining are currently at an all-time high, with other, e.g. Chinese mining projects obstructed by road blocks (but also red tape) in other parts of the country (Gullette & Kalybekova, 2014). Although public discussion of environmental exploitation are dominated by these issues, the question of whether or not to build large dams hardly features. Nevertheless, electricity provision in Kyrgyzstan does seems to be partly driven by political considerations: the capital predictably gets better electricity provision, but so does the Naryn region: this is the coldest region that would suffer most from winter cuts. But it also happens to be the province where protests at electricity price hikes first sparked public protests and the seizure of government offices that preceded the 2010 government overthrow. As electricity prices were raised in summer 2014, there were also several, though very small, demonstrations in Naryn town.

Kambar Ata 1 and 2, projects initiated in the late eighties, and relaunched by the otherwise unpopular president Bakiev, are probably the only highlevel Bakiev policy that has been continued after his overthrow in 2010. Though questions of funding and implementation periodically occupy the parliamentary floor, the fundamental question of building or not building these large dams is not at issue. Before 2010, the interim president Roza Otunbaeva had been asking highly critical questions of the project under Bakiev, but once in power, she supported the project, as does the current government (Menga, 2013, pp. 137-138). One reason for this shift might be that in the political crisis and violence of summer 2010, when ethnic violence caused several hundred deaths and there were fears the country might break apart, the inauguration of Kambar Ata 2 (the smaller facility) on Independence Day was the only positive, potentially unifying piece

²¹ This is one of the world's biggest gold mines, and represented 33.4% of Kyrgyzstan's export values in 2012 (Gullette, 2014, p. 17).

of news. In a fairly open 'exchange' of favours, Russia had at the time offered to fund the Kambar Ata project, in return for closing the Manas American airbase near Bishkek. Now the airbase has indeed been closed, it is not clear whether this funding will actually be forthcoming, and on what terms. Actual construction on the project is currently limited to building new pylon links across the country. On the other hand, a Kyrgyz-Russian joint venture has since 2013 begun building medium-scale hydropower stations on the uppermost reach of the Naryn river. The site is managed by RusHydro, investment comes from the Russian state. This means that until these investments are paid off, Russia will own not 50%, but approximately 75% of the electricity produced at these sites. Despite repeated attempts, it has not been possible to view the actual contracts, and both regional administrators and residents are unclear about whether, for example, they will benefit in any way from the dams on their territory, or how decisions about energy sales and pricing will be taken. The joint venture company itself claims there will be no preferential pricing or supply for the region of production. Nor does it offer any kind of social or training programs in the area of construction. Rather, regional administrators highlight that taxes from the dams will ease their regional budget, and that the dam sites will provide work (interview, June 2014).

However, in conversation with villagers, and from a Q & A session with dam management on local TV, it was evident that there have been (at the least) quite a few misunderstandings on this issue. The main concern local people raised in 2014 was indeed: employment opportunities, claiming that the company had promised 3,000 jobs to locals. On Naryn regional TV, the company representative, however, took care to emphasise that they were primarily looking for experts, such as engineers, with a number of years of experience. Such people are of course extremely scarce in surrounding villages that depend mainly on livestock. Anger over these disappointments had led to threats and theft of equipment at the dam site in 2014. In the local district town, this was rumoured to have been perpetrated by drunken villagers. The village administration itself claimed that the theft had been carried out by the local mafia strongman, to support 'his people.' In consequence, alcohol was temporarily banned in the nearest village to the dam, and the company refused to hire anyone from there. Possibly also in response, a number of information films are being produced by the company, in an effort to improve relations with the population. Despite previous agreements on the acceptability of such a project with all parties concerned (company, energy ministry, regional and local administration, national security services), a planned participatory film project on water supply near the first dam site in autumn 2014 was cut short by police interference. A number of indirect tactics were used to frighten residents and to pressure the project team to leave. These included a policeman masquerading as an authoritative civilian, arguing that on the one hand "this village has no water problems..." but also that "people here are worried about showing negative things from the village in the film."

Conclusion: Same Roots, Different Process, Same Result in Dam-Building?

Dam-building in Central Asia is part of an era of dam-building in Asia and Africa, at least partially sustained by a coming together of lobbies: national governments, international technology, financial firms and institutions. We would like to note that neither such self-interested coalitions, nor the political use of dam-building is somehow a monopoly of doubtful democracies: the Tennessee River project, on which so many dam projects model themselves, was after all part of Roosevelt's New Deal, a desperate measure to try to overcome the Great Depression (D'Souza, 2013, pp. 62-63).²³ However, in Europe and the US the era of big dams is over, and dam-decommissioning reduces their number every year.²⁴

This chapter sought to draw out the way (successive) Tajikistani and Kyrgyzstani governments have interacted with their citizenry on the subject of big dams. Does it matter, that the two governments generally vary

²² It should be noted that both in line with our participants' interests, and because of the increasing sensitivity of the water and energy topic in the course of 2014, we had already shifted the focus of the film to 'the role of water in everyday life' rather than the impact of the dam, i.e. the provision of drinking water, the role of irrigation, the current drought etc.

²³ We would like to encourage research on further research questions: first, can we trace a general 'democratic deficit' (at different levels and degrees) in infrastructure or energy provision decisions around the world? Second, can we say that Rogun and the Naryn dam projects have not only significantly shaped, but also 'changed' state-citizen relations? What if it we were speaking about different kinds of building project, or not a building project but for example a series of government sponsored events, instead?

²⁴ This is not to say that there are no contemporary infrastructure projects in these regions that equally ride rough-shod over local concerns.

a lot in their approaches to control, participation and opposition? Or do we, in the end, have similar end results in decision-making over dams, united in Soviet historic origin and in end result? If so, what mechanisms might be contributing to such unexpected similarities? Before conducting research on dams on each side of the border in 2014, we had assumed that our research methods would be very much more constrained by political considerations in Tajikistan than in Kyrgyzstan. In effect, this turned out to be only partially true. In autumn 2014, the dam issue in both countries was hot enough to draw services' interference, and radically curtailed both branches of investigation. It remains to be seen whether this will continue to be the case in Kyrgyzstan, or whether police interference and opaqueness of institutions will remain a constant in both settings.

Let us reiterate the series of similarities and contrasts that we have outlined: Nurek, and then Rogun, have always seemed to generate more hyperbole, but also hotter disputes with Uzbekistan, than dams in Kyrgyzstan. The hyperbole may be linked to the record-breaking nature of the Vakhš projects on the one hand, but also to the singular place Rogun has been given by the Tajik government, as a rhetorical means of generating patriotic means and government legitimacy - even towards international audiences. It seems the Tajikistani government utilises the technical 'magic aura' of Rogun much in the same sense as some Asian countries are continuously topping records in highest buildings, as daring displays of state power. In Kyrgyzstan meanwhile, the Naryn dams are treated far more as a matter-offact solution to an everyday problem: how to supply the country with enough energy. It seems to be this different approach to issues of sovereignty and disputed variations of patriotic 'ownership' that may feed the greater heat of Tajikistani-Uzbekistani water disputes, compared to Kyrgyzstani-Uzbekistani water relations. It is not the case that patriotism is not currently also a strong current drawn on by the Kyrgyzstani government: but such exhortations are directed towards other issues and enemies: the international companies profiting from the Kumtor gold mine, for example, or citizens of other ethnicities suspected of disloyalty. Should attention, for example by environmental NGOs, become less monopolised by foreign profits from the Kumtor gold mine, the opposition, media and popular opinion might also ask what consequences growing dependency on Russia as an investor in dams and energy might spell, and whether such dependencies (whether they

are on a single country or organisation like the World Bank), are desirable. Russia has in fact backed off from funding the new Naryn dams in summer 2015, arguing that the conflict with Uzbekistan over the proposed dams ought to be resolved first. This can be read on the one hand, as a face-saving way of withdrawing from investment during a recession, but also as a way for Moscow to step back into the role of broker between different republican interests in managing Central Asian water and energy issues.

In both countries the political elites are likely to become the chief beneficiaries of the projects, receiving revenue from energy sales in Kyrgyzstan and – in Tajikistan – additionally extracting profits from the TALCO aluminium plant (Heathershaw, 2011; Trilling, 2014a, 2014b). Many less privileged citizens have experienced dispossession or have been pressured to co-finance the dams – either directly by forced Rogun share purchases or indirectly through taxes in Kyrgyzstan. For yet other citizens, the dams present opportunities as a rare site of local work provision, and source of hope for a better future.

We can thus summarise that citizens, generally, have been more broadly affected by dam-building in the independence era in Tajikistan, than in Kyrgyzstan: residents of Dushanbe see images and slogans of Rogun on their daily commute, on TV, in bookshops. There have been very intermittent recent propaganda equivalents from Bishkek, let alone in the Toktogul or Naryn region, where the dams are actually being built. In correlation, opinions (and information) on Rogun are much more widespread in Tajikistan than for neighbouring Kyrgyzstanis. This is of course, also a legacy of the difference in Soviet-era discussions (very heated, with political consequences for the decisions on Rogun – apparently quite low-key over Kambar Ata in Kyrgyzstan). Both a consequence and a reason for this heightened awareness is also, of course, the forced funding drive Tajikistani citizens were subjected to in 2009/2010.

Focusing more on the immediate experience of dam-building, in both cases we see a common legacy of the Soviet era dams as a model: despite the fraught process of building both Nurek and the Toktogul cascade, both their hydropower capacities in actually providing light and warmth, as well as proven success in bringing modern life to individuals and the country seem to fuel social acceptance for dam-building as a solution to energy

provision. Certainly in the Kyrgyzstani case, intellectuals' rather polite critiques of the seventies seem to have been forgotten.

However, in both cases, when it comes to the actual process of dambuilding, rather than just the idea that 'dams are a good thing for our country', we found a sense of alienation widespread among citizens. This sense of alienation centred around two core concerns: firstly, distrust of government spending and officials, in principle. Secondly, high expectations (on occasion consciously fuelled by government and company promises) of the construction sites providing well-paid work. Both states work to convince a shifting range of external actors (Moscow, the World Bank, Russia, Iran). Rogun however has been given a very different place as a national monument vouched for by President Rahmon, alongside other elements of Tajik state patriotism. The new Naryn dams, on the other hand, are usually handled as a sober means to an end, the Kumtor gold mines attracting patriotic fervour instead.

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Abstract

This paper describes the building of Rogun hydropower station and how Soviet and post-soviet governments have conveyed its benefits to different audiences. Tracing public discussions from the late Soviet period, the authors used archives, ethnographic and interview methods to investigate how citizens are affected ideologically, economically and politically by the project. The Rogun project is compared to dam-building processes in the Kyrgyz Republic. Authors argue that the Soviet roots of the projects, and seemingly the outcomes are similar in the two countries, despite different political processes and public levels of discussion and dissent in each country.

Keywords: hydropower, state-citizen relations, Tajikistan, Kyrgyzstan, Nurek, Rogun, Kambar Ata, Naryn.

Résumé

Le complexe de Rogun : rôles publics et expériences historiques de la construction de barrages au Tadjikistan et au Kirghizstan

Cet article décrit la construction de la centrale hydroélectrique de Rogun et la manière dont les gouvernements soviétiques et post-soviétiques ont communiqué ses qualités aux différents auditoires. En suivant les débats publics depuis la fin de l'ère soviétique, les auteurs ont utilisé des archives, des méthodes ethnographiques et des entretiens pour comprendre comment les citoyens sont touchés idéologiquement, économiquement et politiquement par le projet. Rogun est comparé aux processus de construction de barrages au Kirghizstan. Les auteurs soutiennent l'idée selon laquelle les racines soviétiques des projets ainsi que leurs résultats sont similaires dans les deux pays, malgré la différence des processus politiques et des discussions publiques et l'existence d'une opposition dans chaque pays.

Mots clés : hydroélectricité, relations État-citoyens, Tadjikistan, Kirghizstan, Nurek, Rogun, Kambar Ata, Naryn

Аннотация

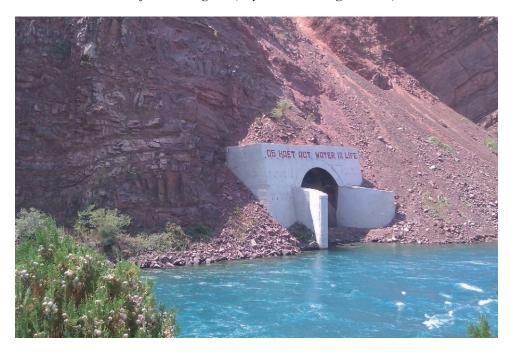
Рогунский комплекс: общественная роль и исторический опыт строительства плотин в Таджикистане и Кыргызстане

Эта статья описывает строительство Рогунской ГЭС и то, какими способами советское и постсоветское правительства объясняли их преимущества различным аудиториям. Прослеживая общественные дебаты с конца советской эпохи, авторы использовали архивные данные, этнографические методы, интервью, чтобы понять, как этот проект коснулся граждан в идеологическом, экономическом и политическом аспектах. Рогунский опыт сравнивается с процессами строительства плотин в Кыргызстане. Авторы высказывают мнение о том, что результаты этих советских проектов схожи в обеих странах,

несмотря на различия в политических процессах, общественных дебатах и существовании оппозиции в каждой стране.

Ключевые слова: гидроэнергетика, отношения между государством и гражданами, Таджикистан, Кыргызстан, Нурек, Рогун, Камбар Ата, Нарын.

Annexe 9
Tunnel opening at Nurek HPP with the slogan reading "Water is Life" in Tajik and English (Suyarkulova, August 2013)



Annexe 10
Billboard from 2013, installed next to the Ministry of Water Resources and Melioration in Dushanbe, Tajikistan (Suyarkulova, June 2014)

