Natural resources and climate change: what conflict in the Ferghana Valley?

Description

Located in the heart of Central Asia, the Ferghana Valley enjoys a climate that is conducive to agriculture. However, climate change and the resulting scarcity of water are raising concerns about competition for natural resources, often reduced to “water wars.” In reality, these tensions conceal more complex conflicts linked to the unequal management of resources and the militarisation of borders, requiring a nuanced approach to understand their full scope.

The Ferghana Valley, nicknamed the “Garden of Central Asia,” benefits from favorable climatic conditions that enable local communities to carry out fruitful agricultural activities. Nevertheless, the valley is a source of concern due to its unstable and even conflict-ridden nature. While the valley is rich in natural resources, particularly water, climate change, and demographic pressure are causing them to become increasingly scarce. This leads to a neo-Malthusian conclusion: increased competition for natural resources is likely to emerge and exacerbate tensions. Once feared for its inter-ethnic conflicts and the Islamist threat, the Ferghana Valley now seems to be the ideal breeding ground for future “water wars.”

Features of the Ferghana Valley

Divided between Uzbekistan, Kyrgyzstan, and Tajikistan, the Ferghana Valley stretches for almost 300km and is regarded in Western literature as one of the least politically stable areas in the region. The valley, like the Central Asian region as a whole, has inherited particularly complex borders, sometimes referred to as “aberrant”(1). Built between 1950 and 1980, the water infrastructure has become a point of contention since the end of the USSR, as it was designed at the time for a single national system. The internationalization of the borders of the former republics has had consequences for the way of life of local populations.

Map 1. Adapted by the author (Adobe Illustrator) based on *Environment and Security. Transforming Risks into Cooperation*, United Nations Development Programme (UNDP), 2005, p. 56.

What’s more, climate change and its effects are taking their toll on the valley. According to a 2017 OSCE report, the Ferghana Valley is one of the regions in the world most vulnerable to the effects of rising temperatures. This prospect is all the more alarming given that the Syrdaria basin is the most densely populated area in the region. Rising temperatures have a particular impact on the evaporation of water resources but also on the melting of the glaciers that irrigate the valley. In an area where irrigated agriculture is the primary source of income and economic life, these

environmental changes are having particularly harmful effects. They alter the seasonality of water availability and the hydraulic regime, moving away from the real water needs of local populations, which are aligned with the agricultural calendar.

Despite episodes of conflict during the Soviet period, the peak of violence linked to natural resources was reached in September 2022 between Kyrgyzstan and Tajikistan. Some authors attribute this intensification to the absence of a "regional hegemon" capable of enforcing agreements on the sharing of cross-border natural resources, as Moscow did in the USSR(2).

"Water wars" or "conflicts of use"?

The "water wars" and the "climate wars" are part of the "green wars," armed conflicts initiated by the competition for natural resources in a context of reduced availability due to global change. However, this concept needs to be approached with great caution, as the link between environmental degradation and the outbreak of conflicts is multifaceted.

Undoubtedly, increased pressure on natural resources is contributing to the aggravation of tensions. Although water is unlikely to be a factor capable of triggering war on its own, *"conflicts over water in regions already affected by difficult relations, by superimposing antagonisms that make negotiation unlikely, contribute to the risk of conflict"*(3). In the Ferghana Valley, it has been demonstrated that tensions are primarily linked to the unequal use and unsustainable management of natural resources and that they are exacerbated by the militarization of borders(4). Generally speaking, disputes between communities arise when the quantities of water supplied do not correspond to users' actual expectations. These tensions emerge seasonally when the growing season begins and ends, but water resources are insufficient to irrigate all the agricultural land. In this case, in a valley rich in natural resources, the amount of water available per capita—particularly in Kyrgyzstan and Tajikistan—is high compared to many European countries(5). The problem of the possible emergence of conflicts over water is, therefore, rooted not in the potential aridity of the valley but in *"the dynamics of exploding demand for a limited resource"*(3).

Rather than being the direct and sole cause of conflict, water can, therefore, be seen as *"an additional factor of tension, in the context of already deteriorated relations, which catalyzes the temptation to resort to arms"*(3). In a context where the three countries of the Ferghana Valley are favoring national autonomy and moving away from a standard cross-border system, unilateral gestures are becoming recurrent. They are an aggravating factor in this situation, where water is part of a pattern of conflictual relations and reinforces political tensions to the point of *"rendering the purely hydrological dimension incidental, or at least secondary to the political stakes"*(3).

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The case of the Toktogul reservoir is particularly telling. The transition from joint management of the water-energy complex to national, even nationalistic, management of natural resources has aggravated the already complex relations between Kyrgyzstan and Uzbekistan. The water factor is, therefore, perilous when it is added to acute, multidimensional conflicts, *"providing States with instruments of power that they can use in the context of these conflicts or by fanning mistrust and hostility between States whose relations have already deteriorated"*(3). In the case of Afghanistan, the complex interdependence between the use of and competition over water resources, water infrastructure, and disputes over the demarcation of borders is at the root of this complex constellation of inter-state tensions.

In recent years, the media have paid considerable attention to potential « water wars » but have reported far less on the proliferation of local conflicts over access to water. A conflict of use is defined as a situation of opposition over the use of

spatial sub-areas. The term is used to cover situations that are also described as conflicts over location, development, the environment, or proximity. This concept highlights the notion of the "spectrum of conflictuality," which enables addressing the issue of conflictuality in the valley through its plurality. Conflict does not only take the form of armed inter-state conflicts but takes many different forms. Although military action is a relatively rare recourse between states, relations between countries sharing river basins are regularly affected by various types and degrees of dispute(2).

Should we discuss conflict?

Some studies suggest that climate change should be approached not just as a threat but also as a window of opportunity. While there is no question of minimizing the risk of water-related conflicts, there are examples of successful cooperation, such as the one established in January 2000 in the Chu and Talas river basins, which Kazakhstan and Kyrgyzstan share. A permanent commission has been established to coordinate water demands for irrigation between the two countries. Since 2003, bilateral projects have been funded by various donors, reflecting improved relations between the two parties. As a result, tensions over water issues have since been sporadic.

Map 2. Chu-Talas transboundary basin between Kyrgyzstan and Kazakhstan. Map adapted by the author (Adobe Illustrator) based on UNEP/DEWA/GRID-Geneva, 2011.

Thus, the neo-Malthusian assertion that climate change can be a significant source of international tension or even militarised inter-state conflict does not seem to apply to the case of Afghanistan. Projections for the Syr Darya basin indicate that climate change-induced changes in river flows are likely to take hold only in the medium to long term(5), allowing time for riparian countries to establish effective legal frameworks for water allocation. Thus, a militarised inter-state conflict caused by the climate change-induced scarcity of water resources in Central Asia, or a "water war," is unlikely in the next few years.

Finally, the expression « water war » used to describe the social dynamics of the Ferghana Valley can have a detrimental effect. Since the 1990s, the region has been perceived by Western authors as *"at the heart of a multitude of crises, » where « the signs of a possible conflict are obvious"*(6). This description echoes the notion of "konfliktoguennost" – or conflictogenecity – denounced by Reeves, referring to the misperception of the Ferghana Valley as conducive to conflict through an "apparent excess of ethnic heterogeneity." So today, the alarmist neo-Malthusian straitjacket continues to reinforce the erroneous perception of the Ferghana Valley as "konfliktoguennost."

Notes:

(1) Olivier Roy, *La Nouvelle Asie centrale ou la fabrication des nations*. Ed. du Seuil, 1997, p. 326.

(2) Alessandro de Stasio, *Water and Conflict in the Ferghana Valley: Historical Foundations of the Interstate Water Disputes Between Kyrgyzstan and Uzbekistan.* [Master's thesis, LUISS Guido Carli University, Rome]. (2018, p. 160).

(3) Frédéric Lasserre, « Conflits hydrauliques et guerres de l'eau : un essai de modélisation », *Revue internationale et stratégique*, n° 66, 2007, pp. 105-118.

(4) Asel Murzakulova & Irène Mestre, “Natural Resource Management Dynamics in Border Communities of Kyrgyzstan and Tajikistan,” Research Paper n° 1, *University of Central Asia*, 2016, p. 35.

(5) Thomas Bernauer & Tobias Siegfried, “Climate change and international water conflict in Central Asia,” *Journal of Peace Research*, 2012, pp. 227-239.

(6) Madeleine Reeves, “Locating danger: *konfliktologiia* and the search for fixity in the Ferghana Valley borderlands,” *Central Asian Survey, 24 (1)*, 2005, pp. 67-81.

Thumbnail: The Ak-Suu cross-border river between Kyrgyzstan and Tajikistan (© A. Protassov, 2023).

Link to the French version of the article

* Anastasia Protassov is a doctoral student in geography at the University of Lille in the TVES laboratory (ULR 4477).

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