



UNIVERSITY OF CENTRAL ASIA  
GRADUATE SCHOOL OF DEVELOPMENT  
Mountain Societies Research Institute



**Policy Brief**

# **Climate Change Concerns in Central Asia Public Discourse**

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## Policy Brief

# Climate Change Concerns in Central Asia Public Discourse

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The findings, interpretations and conclusions expressed in this paper are entirely those of the authors and do not necessary represent the views of the University of Central Asia.

The University of Central Asia Graduate School of Development's Mountain Societies Research Institute (MSRI) applies sound scientific expertise to study complex earth surface and environmental processes and interactions that affect mountain societies. Its interdisciplinary research focuses on improving mountain livelihoods, sustainably managing natural resources, mitigating the effects of natural hazards and climate change, and building community resilience in these challenging environments.

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## Annotation

The study has uncovered a significant disparity between expert and public discourse when it comes to comprehending and addressing water stress concerns within the region. This absence of evidence-based dialogue exacerbates the securitization of the region's water problems and perpetuates the discourse of a "water wars" scenario as the most probable outcome for water policy, especially in the context of climate change. Our findings underscore the critical importance of bridging the gap between opinion leaders within the region and sectoral specialists. This collaboration is essential to construct a well-informed public narrative on environmental justice, climate change, and water stress issues. Such initiatives serve as vital mechanisms for conflict prevention and fostering public awareness of environmental challenges.

## Introduction

In July 2023, residents of Astana chanted “Give us water” during a spontaneous rally in the city centre<sup>1</sup>. Same day, residents of new residential areas in Bishkek held a rally and blocked the main highway of the city due to the prolonged lack of drinking water in their houses<sup>2</sup>. Water stress in the cities of Central Asia has increasingly mobilised urban residents. However, water stress for rural inhabitants is major concern in the context of prolonged droughts and low water periods in Central Asia. The discourse surrounding water stress and climate change issues differ significantly in urban and rural settings in Central Asia. In urban areas, the issue of inadequate water supply involves a complex interplay of both new and old urban planning problems where environmental factors closely intertwine with water resource management issues. On the other hand, in rural areas, social mobilization around water issues, competing users demands and other natural resources often stems from concerns related to environmental injustice. In certain countries of Central Asia, we witness open expressions of public opinion regarding growing concerns about natural resource degradation, water shortages, and deteriorating health conditions. In contrast, in other countries within the region, these concerns are discussed at the grassroots level, as those who raise concerns about environmental injustice often find their positions marginalized. This policy brief is the result of an 8-month study aimed at mapping risks associated with social tensions and conflicts in context of climate change in five Central Asian countries (Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan, Turkmenistan). The first stage of the study included a literature review of open sources on environmental issues, social tensions, and climate change in the region. We analyzed 72 sources, mapping the connections among environmental degradation, climate change, natural resource management, and social tensions and conflicts. The second stage was based on conducting an expert survey among specialists in the fields of social development, economics, environmental management, climate, and agriculture in the region. Twenty experts were surveyed, 13 of whom agreed to participate in interviews, the analysis of which is presented herein.

## Environmental concerns: water and conflict discourse in Central Asia

According to the international water stress index, the southern region of Central Asia includes the countries with the highest water stress forecast by 2040, while the rest of the region is projected to have high levels of water stress over the designated time frame.<sup>3</sup>

The desk study suggests that climate change is being discussed as a factor that reinforces already-existing tensions within the region, both within and between nations focused around water distribution and water security issues<sup>4</sup>. Various scales of regional tensions are clustered predominantly around surface

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- 1 “Tired enough”. Streets are blocked in Astana due to lack of drinking water. Azattyq 7 June 2023, Available: <https://rus.azattyq.org/a/ustali-uzhe-v-astane-perekryvayut-ulitsy-iz-za-nehvatki-pitevoj-vody/32448902.html>
  - 2 In the south of Bishkek, residents blocked the road in protest due to the lack of drinking water. Available: <https://kloop.kg/blog/2023/06/07/odnim-video-na-yuge-bishkeka-zhiteli-perekryli-dorogu-v-znak-protesta-iz-za-otsutstviya-pitevoj-vody/>
  - 3 Water Stress by Country based on the projection’s scenario SSP2 and RCP 8.5 for 2040. World Resources Institute. Available: <https://reliefweb.int/map/world/water-stress-country-2040>
  - 4 See: Peña-Ramos, J. A., Bagus, P., & Fursova, D. (2021). Water conflicts in Central Asia: Some recommendations on the non-conflictual use of water. *Sustainability*, 13(6), 3479; Pingua, R. (2020). The distribution of water resources in Central Asia. *World Affairs: The Journal of International Issues*, 24(1), 118-131; Zakhirova, Leila. The international politics of water security in Central Asia. *Europe-Asia Studies* 65.10 (2013): 1994-2013; Sievers, E. W. (2001). Water, conflict, and regional security in Central Asia. *NYU Env'tl. LJ*, 10, 356.



water (groundwater resources are excluded from regional water stress discourses) with other types of natural resource issues less discussed in the context of tensions and conflict potential. However, based on recent research, the link between the risks of water conflicts and climate change tends to overlook the issue of low water productivity in the countries of the region.<sup>5</sup> The failure of these regional countries to improve water usage and reform their agricultural and industrial sectors contributes to an increasing gap between water availability and demand. This, in turn, exacerbates water scarcity issues within the region.

The high dependence of the economies of the region on water resources links to the potential for conflict.<sup>6</sup> In media discourses, increasing water demands are considered as a primer trigger to the interstate tensions and confrontations. For example, a recent development involving Kyrgyzstan and Kazakhstan that revolved around water scarcity, transborder ground transit, and national interests serves as a compelling demonstration of how water resources can emerge in public discourse as a central factor in shaping the broader security agenda within the region. This sheds light on the understanding of vulnerabilities and interdependencies that permeate public discourse on these issues.

In late August 2023, an extensive line of heavy trucks formed along the Kyrgyzstan - Kazakhstan border. The government of Kazakhstan attributed the issue of vehicle passage to a security operation aimed at combating drug trafficking<sup>7</sup>, while the public discourse traditionally linked the problems of land transit in Kyrgyzstan to the lack of water resources in neighbouring southern Kazakhstan<sup>8</sup>. In a widely circulated open letter addressed to Kazakhstani citizens, Kyrgyzstan Academic Ulan Chortonbayev expressed his perspective on the water scarcity issue, stating, “There is no water. What can we give you if there is no water? Do not think that we deliberately withhold water when we have it. You have prevented our vehicles from passing through customs checkpoints, resulting in long queues at your border posts. You justify this by claiming that we have ceased water supply to you. Since the spring, we have consistently provided water from the Kirov and Orto-Tokoy reservoirs. Even if we were to run out of water, we have diligently fulfilled our obligations as per the agreements [...] There are fish at the bottom of the remaining water in reservoirs. If we release this water, all the fish will perish. After all, fish, too, have a right to live”<sup>9</sup>

Public comments from Kazakhstan commentators repeated the logic of cause-and-effect relationships voiced by the Kyrgyz expert “What we are seeing now may be the first sign of a whole chain of crisis situations in the future. Not only in relations with Kyrgyzstan, but also with other countries, including

5 Umirbekov, A., Akhmetov, A., & Gafurov, Z. (2022). Water Agriculture Energy Nexus in Central Asia through the Lens of Climate Change. CAREC Research Report.

6 Ibid. Pohl B. et all. Rethinking water in Central Asia: The costs of inaction and benefits of water cooperation. ADELPHI and CAREC, 2017. Available: <https://carececo.org/Rethinking%20Water%20in%20Central%20Asia.pdf>

7 The head of the Ministry of Finance explained queues of trucks on the border of Kyrgyzstan and Kazakhstan. Available: <https://ru.sputnik.kz/20230822/glava-minfina-obyasnil-ocheredi-iz-fur-na-granitse-kyrgyzstana-i-kazahstana-37872871.html>

8 Problems again. Heavy trucks from Kyrgyzstan stand at the border with Kazakhstan. Available: [https://24.kg/obschestvo/272994\\_snova\\_problemyi\\_bolshegruzyi\\_izkyrgyzstana\\_stoyat\\_nagranitse\\_skazahstanom/](https://24.kg/obschestvo/272994_snova_problemyi_bolshegruzyi_izkyrgyzstana_stoyat_nagranitse_skazahstanom/); Hundreds of trucks piled up on the border between Kyrgyzstan and Kazakhstan, which Kazakh border guards would not let through. Available: <https://theins.ru/news/264546>

9 Chortonbaev Ulan “Address to Kazakh brothers: There is no water. What can we give you if there is no water?” Available: [http://mnenie.akipress.org/unews/un\\_post:35847/?from=mnenie&place=search&sth=1af22493df082cc46c4de269e6b226ec](http://mnenie.akipress.org/unews/un_post:35847/?from=mnenie&place=search&sth=1af22493df082cc46c4de269e6b226ec)

Russia (shallowing of the Ural River). For Kazakhstan, the issue of shortage of irrigation and fresh water is extremely acute; the country does not control any of the important water arteries”<sup>10</sup>.

As part of the resource nationalism discourse<sup>11</sup> Chortonbayev’s address demonstrates a publicly widespread concern: i.e., water-related problems are closely linked to border tensions and deterioration of interstate relations. However, this perception does not address significant challenges to water security in the region in the context of climate change, such as water productivity, efficiency of water use, high unpredictability of precipitation dynamics, extreme weather events (heavy rains, heat waves, droughts etc.)

Our study reveals a significant disparity between academic and public discourse concerning the comprehension and discussion of water stress issues within the region. The absence of evidence-based dialogue contributes to the securitization of water-related concerns and the prevalent discussion of the ‘water wars’ scenario as the most probable outcome for water policy within the context of climate change. While academic research places emphasis on factors contributing to the sustainability of the water management system in the region, particularly in the face of diminished water resources and more frequent droughts<sup>12</sup>, explores the adaptability of the existing water distribution system based on past crises<sup>13</sup>, and highlights the absence of an evidence base supporting the growing conflict over water in the region.<sup>14</sup>

In contrast, public discourse tends to securitize water stress. The majority of media publications examined within the scope of this study establish a direct correlation between water stress and the erosion of interstate relations within the region. Furthermore, these publications posit the potential for such deteriorating relations to manifest as violent conflicts.<sup>15</sup> Our findings underscore the necessity of bridging the gap between regional opinion leaders and industry experts to formulate evidence-based public narratives on environmental concerns, climate change, and water stress. Initiatives in this direction will serve as a vital mechanism for conflict prevention.

10 Hundreds of trucks have accumulated on the border of Kyrgyzstan and Kazakhstan, which Kazakh border guards are not allowing through. Available: <https://theins.ru/news/264546>

11 Osacly Beril and Artman Vincent Resource nationalism and slow violence in Kyrgyzstan. OXUS Society. Available: <https://oxussociety.org/resource-nationalism-and-slow-violence-in-kyrgyzstan/>

12 Zou, J., Ding, J., Welp, M., Huang, S., & Liu, B. (2020). Assessing the response of ecosystem water use efficiency to drought during and after drought events across Central Asia. *Sensors*, 20(3), 581; Siegfried, T., Bernauer, T., Guennet, R., Sellars, S., Robertson, A. W., Mankin, J., & Yakovlev, A. (2012). Will climate change exacerbate water stress in Central Asia? *Climatic Change*, 112, 881-899.

13 Dadabaev, T., Sehring, J., & Djalilova, N. (2023). Central Asian Water Neighbourhood: A Constructivist Reconceptualisation of Hydropolitics in Central Asia. *Water Alternatives*, 16(3), 3; Ziganshina, D., & Janusz-Pawletta, B. (2020). The principle of no significant harm in the Central Asian context. *International Environmental Agreements: Politics, Law and Economics*, 20(4), 713-730.

14 Bernauer, T., & Siegfried, T. (2012). Climate change and international water conflict in Central Asia. *Journal of Peace Research*, 49(1), 227-239; Abdullaev, I., & Rakhmatullaev, S. (2015). Transformation of water management in Central Asia: from State-centric, hydraulic mission to socio-political control. *Environmental Earth Sciences*, 73(2), 849-861;

15 As an example of this widespread discourse, see video that received 40 thousand views in the first month of publication: MediaHub: When will the issue of drinking water be resolved? Available: <https://www.youtube.com/watch?v=H1vXhLPXDy8>

## Expert interview analysis

In locations where recent conflicts have occurred in the region, we can detect long-term processes of environmental degradation, social grievances, and complex dynamics expressed as “slow violence”.<sup>16</sup> Because slow violence is stretched over space and time and does not always flow visibly, unlike political violence, it goes unnoticed for long periods of time within the broader security discourse. In this regard, we are not always able to see clearly and openly the multifaceted effect that climate change is having on current security dynamics in the region. This is not to suggest that the link between environmental change and conflict is linear. In this study, we move away from a natural determinism of conflict and consider it important to account for the complexity of social, economic, and political dynamics in the context of a changing climate. The primary objective of the expert interviews was to assess the level of awareness among professionals operating within the domains of contemporary social development, agriculture, climate change, natural resource management, gender, and political development regarding the influence of environmental factors on the regional security landscape.

The expert interviews revealed a distinct regional variation in the discourse surrounding environmental issues within the region, which does not coalesce into a comprehensive national-level perspective. In general, the topic of climate change and environmental stressors is addressed on a seasonal basis and garners limited interest and widespread attention according to the insights gathered from the surveyed experts. As elucidated by one of the respondents hailing from Kazakhstan: “In our surveys, when assessing the hierarchy of factors contributing to social tensions, individuals most frequently cite material considerations, such as the high level of indebtedness in our society, followed by food inflation, interethnic relations, and environmental issues related to climate change, which occupy a somewhat lower ranking, typically around the 8th or 9th position” (Interview materials, Almaty, May 2023).

In all the countries within the region, the linkage between environmental stress and socio-political conflicts did not emerge as a salient theme among the survey participants. There were only two noteworthy exceptions: Uzbekistan, where social protests in Karakalpakstan in 2020, and Kyrgyzstan, where the Kumtor case and the violent change in political regime in October 2020, were seen as instances where environmental concerns played a discernible role. Overall, the expert survey findings underscored the tendency for sector-specific expertise to engender sector-specific discourses concerning the challenges posed by climate change and environmental issues. The socio-political tensions within the region were not framed within the context of natural stressors or the repercussions of climate change, but rather, they were predominantly articulated with regard to the nature of the prevailing political regimes. Experts identified constraints on the expression of public opinion, deficiencies in the rule of law, and an inadequate level of governance as the primary contextual factors contributing to the escalation of conflicts. The enduring, long-term environmental stresses affecting the regions that experienced the most recent outbreaks of violence in the region (2022-2023) went largely unnoticed.

The interviewed experts reached a consensus regarding the correlation between environmental degradation and the social tensions that surfaced during the 2022 protests in Karakalpakstan, Uzbekistan. According to their assessments, a “new” phase of economic development in this region commenced in the early 2000s, characterized by the exploitation of natural resources in Sultan Uais Tau (Karatau). This economic activity involves the extraction and transportation of construction materials, such as crushed stone. Additionally, there is a discernible pattern of population resettlement from densely populated areas of Uzbekistan to Karakalpakstan, particularly in the northern regions, including Bozatau and Kegeyli,

<sup>16</sup> Nixon, R. (2011). *Slow Violence and the Environmentalism of the Poor*. Harvard University Press.



where migrants from the Fergana Valley are actively engaged in house construction. Furthermore, a patronage policy, reminiscent of practices from the Soviet era, persists and is currently in effect. For instance, each district within the republic is under the patronage of specific regions of Uzbekistan, with Tashkent taking on the role of patron for Nukus. Substantial investments are being channelled into the region's economy, notably within the agricultural sector, with an emphasis on greenhouse business development. However, a notable issue lies in the fact that this economic niche is predominantly occupied by individuals from other regions who receive subsidies, while local residents face constraints and limitations in this regard. This, in turn, creates issues of environmental injustice at the grassroots level and articulated via non-transparent allocation of benefits from exploitation of the natural resources.

The expert interviews illuminated the absence of a unified regional perspective on environmental concerns, with climate change and environmental stressors often relegated to a secondary position in the hierarchy of factors contributing to social tensions. This pattern is exemplified by our respondent from Kazakhstan, who highlighted the prevalence of material considerations in shaping social unrest. Notably, the linkage between environmental stress and conflicts emerged as an exception in only two countries: Uzbekistan and Kyrgyzstan, where specific instances of environmental concerns were associated with protests and regime changes. Nonetheless, the prevailing discourse within the region predominantly centers on political and governance issues, with limited attention paid to the enduring environmental stresses that underlie conflicts.

One concerning trend identified in our study are sectorial disparities in benefits derived from economic development, particularly related to natural resource exploitation and greenhouse farming. This situation often results in environmental injustices and highlights the need for more transparent and equitable resource allocation in areas where long-term environmental degradation occurs.

Furthermore, the dearth of civil society representation in discussions of environmental justice in Tajikistan, Uzbekistan, and Turkmenistan is evident. Environmental issues are predominantly government-driven, with social conflicts mainly framed within the context of political and economic challenges. The non-transparent nature of natural resource policies remains unaddressed. In summary, addressing the complex interplay among environmental factors and regional security dynamics requires a multi-pronged approach that involves awareness, collaboration, transparency, and civil society engagement. Strengthening cross-sectoral networks and promoting dialogue will be pivotal in building a sustainable and secure future for the region.

## Recommendations

**Promoting Public Awareness:** As our study had shown the public “water wars” discussions and scholarly discourse are disconnected. Initiatives should be developed to raise awareness among the public and civil society organizations about the multifaceted impact of climate change and environmental stressors on regional security based on sound scientific knowledge. Such initiatives can help bridge the gap between professional knowledge and public understanding.

**Facilitating Cross-Sectoral Collaboration:** Encourage collaboration among experts from various fields, including environmental science, social development, agriculture, and politics, to foster a more comprehensive and integrated understanding of the security implications of climate change and environmental degradation and social dynamics in the region.

**Transparent Resource Allocation:** Advocate for transparent and equitable resource allocation policies, ensuring that local community's benefit from economic development related to natural resource exploitation. This can help alleviate environmental injustices and promote social cohesion.

**Civil Society Engagement:** Empower and support civil society organizations in Tajikistan, Uzbekistan, and Turkmenistan to play a more active role in environmental justice discussions. Encourage the formation of civil society networks dedicated to advocating for transparent resource management and environmental sustainability.

**Regional Dialogue:** Foster regional dialogue and cooperation on climate change mitigation strategies towards water use adaptation that could change the equation significantly, if technical and policy changes were made at the state level. Encourage governments to engage with civil society and experts to develop holistic policies that address both security and environmental challenges.

