The Importance of Boosting Societal Resilience in the Fight Against Climate Change in Central Asia



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Abstract Drawing on post-development thinking, this chapter argues that resilience strategies involving the sharing of responsibilities among individuals and communities will increase the ability of the Central Asian countries to stand up to the impact of climate change. Given that Central Asian societies have a strong tradition of home-grown solidarity movements and locally embedded practices of self-reliance, governments, as well as major international donors such as the European Union, the World Bank and the UNDP should help boost societal resilience to climate change in Central Asia by supporting the ability of local societal actors to self-organise and draw on their own local strengths and knowledge of available resources and infrastructure.

Keywords Climate resilience · Self-governance · Post-development thinking · Central Asia

1 Introduction

Central Asian countries are among the most vulnerable in the world to the effects of climate change. Climate change has already claimed wide-ranging impacts on livelihoods in Central Asia and is negatively affecting the economy and agricultural outputs (OSCE 2017; Reyer et al. 2017; Sommer et al. 2013). At the same time, the region is recovering from the COVID-19 pandemic, which has had far-reaching socio-economic effects across Central Asia, especially for the most vulnerable parts of the population (Gleason and Baizakova 2020). In this, the COVID-19 crisis has only further revealed the need to prioritise the interconnection between nature, human resilience and sustainable development in any attempt to increase preparedness for further large-scale crises.

The impact of climate change in Central Asia is set to become more pervasive during the decade from 2020 to 2030 (Vakulchuk et al. 2022), with, among other

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things, more frequent and intense heat extremes, uncertain precipitation patterns, and further glacial melting (OSCE 2017; Reyer et al. 2017). Therefore, states and societies in Central Asia must learn to recover as quickly and efficiently as possible and to handle the impacts of climate change. The concept of resilience is well-placed to capture this, as it is about the extent to which a state or society can mitigate or adapt to crises. Central Asian countries have already taken several important steps to adapt to the harmful effects of climate change. They have all developed national strategies and action plans to fight climate change and move towards low-carbon economies, and have initiated projects on mitigation and adaptation (OSCE 2017). Moreover, the governments of the Central Asian countries have demonstrated readiness and commitment to join forces to address climate change, albeit not always wholeheartedly (OSCE 2017). They are all actively involved in dealing with climate change with direct support from UN agencies, international donors, and financial organisations which are increasingly promoting the notion of resilience as an essential way to be prepared for climate change.

However, as the COVID-19 pandemic revealed, most governments in Central Asia are not prepared to deal with a crisis of such magnitude (Gleason and Baizakova 2020). Moreover, the authorities of the Central Asian countries are not capable of taking (and/or willing to take) the necessary measures to sufficiently adapt to climate change and mitigate its consequences (OSCE 2017; Xenarios et al. 2019). As highlighted in the 2017 Environment and Security Initiative (ENVSEC) report for Central Asia, the financial support offered by international donors may give the Central Asian governments 'the impetus for taking actions, but they also have to develop the potential that is necessary for the effective implementation of these measures. [...]. The countries of the region dispose [only] over basic institutional capacity to plan and implement climate change measures, with some countries having stronger capabilities than others' (OSCE 2017). In addition, as Xenarios et al. (2019) indicate, while the effects of climate change are most severe in mountainous areas, 'the Kyrgyz and Tajik national government structures are characterised by hierarchical decision-making with increasingly authoritarian elements, as well as by inadequate consideration of the specific needs of remote regions like mountain areas in national policy processes'.

Post-development thinking emphasises the value of self-reliance, linked to the notion that people are the agents of their own change and should act based on their local knowledge about what is good for them (see for example Gudynas 2011a, b). Drawing on this school of thought, this chapter argues that resilience strategies involving the sharing of responsibilities among individuals and communities will increase the ability of these countries to stand up to the impacts of climate change. The COVID-19 crisis has put this assertion to the test. In the case of Central Asia, the crisis has revealed that civil society and community-based initiatives were instrumental in addressing the direct impacts of the pandemic (Berdiqulov et al. 2021; Cabar 2021). Similarly, when it comes to standing up to the effects of climate change, there are indications that local civil society actors in Kazakhstan, Kyrgyzstan and Tajikistan are playing an important role by mobilising resources to tackle local climate and

environmental measures based on the locally attuned knowledge and skills of local populations (OSCE 2017).

Therefore, given that Central Asian societies have a strong tradition of locally embedded practices of self-reliance, international donors could help boost societal resilience to climate change in Central Asia by supporting the ability of local societal actors to self-organise and draw on their local strengths and knowledge of available resources and infrastructure.

Across Central Asia, major international donors, including the EU, UNDP and the World Bank, have initiated programmes and projects that focus on boosting resilience by increasing adaptation to climate change and mitigation of its consequences (Vakulchuk et al. 2022). However, rather than boosting 'the ability of people or a society to self-organise, drawing on its local strength and knowledge of available resources, and more importantly, on their hope for a better future' (Korosteleva and Petrova 2020, 2), the resilience agenda of most of these international donors reflects a 'liberal internationalist approach of ready-made solutions and a new-liberal working with responsibilised subjects, from a distance' (Korosteleva 2018, 4).

This observation also applies to the way in which the EU promotes climate resilience in Central Asia, and resilience more generally. Since the launch of the EU's Global Strategy in 2016, the EU has come to conceptualise resilience as 'the ability of states and societies to reform, thus withstanding and recovering from internal and external crises' (European Union 2016, 23). In what appears to be a promising feature, the EU acknowledges that strengthening resilience in recipient countries involves granting local societies more ownership over development initiatives, given that 'positive change can only be home-grown' (European Union 2016, 27). Yet, some argue that the EU's understanding of, and approach to, resilience falls short of truly empowering local people and strengthening societal governance from the bottomup, owing to its continued neoliberal and Eurocentric fixation on EU norms-sharing through ready-made solutions (Joseph and Juncos 2019). This tendency is also manifest in the EU's new Strategy for Central Asia, which prioritises resilience, including enhancing environmental, climate and water resilience (European Commission and HR 2019).

The EU's approach to resilience represents a move away from 'full intervention' and shifts responsibility from the international community to local actors, thereby invoking a progressive discourse of empowerment. However, 'this is done according to a global template that is decided not at the grassroots level, but among international, non-governmental and donor organizations and other international actors' (Joseph and Juncos 2019, 999). While recognising the leading role of partner countries, the EU is 'effectively telling them what their practices should be' (ibid., 1000).

Therefore, this chapter aligns itself with an emergent scholarship that argues that, if international donors are serious about promoting resilience as a way to empower 'the local' and contribute towards a truly sustainable future for Central Asian societies, then these donors will need to embrace a de-centred, post-neoliberal approach to resilience instead of the neoliberal approach that they currently employ (Korosteleva 2018). This implies that donors such as the EU would have to accept 'the other'—namely those Central Asian societies—for what they are, and advocate

home-grown self-organisation and self-governance based on a deep understanding of the local meaning of a 'good life' and local knowledge about the available resources (Korosteleva 2018, 2019; Jerez and Morrissey 2020).

As Korosteleva (2018) highlights, donors such as the EU would need to de-centre their approach to societal resilience more radically 'from those who govern to those who are subjectivised by it, and not by way of creating compliant subjects but rather by way of empowering "peoplehoods", seeking to turn their existing capacities into critical infrastructures to necessitate change, from within, and make it sustainable' (ibid., 3). Indeed, these international donors uphold an understanding of resilience as neoliberal governance, which boils down to building resilience 'outside-in', namely by providing external solutions to local problems for societal groups and communities in recipient countries who are made into compliant subjects and consumers of European/Western practices of good governance (Korosteleva 2018).

To further advance this nascent body of literature, this chapter brings in insights from post-development thinking as a way to conceptualise and operationalise a decentred, post-neoliberal paradigm of societal resilience to climate change.

2 Post-development Thinking

Post-development thinking has been key in challenging the underlying assumptions and implications of classical Western development theory, as well as the neoliberal paradigm that has determined international development assistance. In providing feasible alternatives to the neoliberal paradigm, post-development thinking has, inter alia, proposed the notion of 'good life'. The term 'good life' comes from the Latin American concept Buen Vivir, which can be translated as 'good living' or 'living well'. The concept arose in Latin America in response to the neoliberal development strategies that governments and multilateral development banks were following (Gudynas 2011b). By putting into question the reductionism of classical Western development theory, which reduces development to economic growth, Buen Vivir foregrounded quality of life that goes beyond consumption or property, by connecting it to the collective well-being of humans and by considering well-being to be possible only within a community (Gudynas 2011a, b). The concept brings together a set of ideas that act not only as a critique of Western development thinking-with its ideology of progress and emphasis on economic growth—but also as an alternative to those conventional notions of development (Gudynas 2011b). It is in this regard that Buen Vivir has been connected to post-development thinking, a collection of ideas invigorated by Arturo Escobar in the 1990s (e.g. Escobar 1995), and which has called for abandoning capitalism and the Western-centric development paradigm by advocating locally inspired alternatives to development (Schöneberg 2016).

By offering alternatives to development that emerge from indigenous traditions, *Buen Vivir* provides possibilities to move beyond the Eurocentric tradition (Gudynas 2011a). Related concepts can be found in other parts of the Global South. These local meanings of 'good life', despite coming from different parts of the Global South, have

in common an emphasis on the value of self-reliance, linked to the notion that people are the agents of their own change and should act based on their local knowledge about what is good for them. In other words, these local understandings of the good life and well-being are strongly reflected in local forms and practices of self-reliance and self-governance, which are key to ensuring resilience at the community level.

Although local meanings of 'good life' in Central Asia have not yet been studied widely in the academic literature, it is possible to draw some of the key features of a 'good life' in the region based on an existing scholarly knowledge of the region. In Central Asia, and especially in rural and mountainous areas, a good life is closely associated with the moral principle of trust, as reflected in 'trust networks', which secure community members' good life through reciprocal practices (Boboyorov 2013). These support networks are conditioned by reciprocity, both as a moral good and as material aid in emergencies (ibid.). They run within families, neighbourhoods (*mahallas*) and villages, and across lines of kin, and they 'involve traditional forms of community interaction, management and positions of responsibility' (Earle 2005).

Similar to understandings of good life and well-being that can be found in other parts of the Global South, the centrality of social trust and solidarity as the basis for a good life and well-being are strongly reflected in local forms and practices of self-reliance and self-governance in Central Asia. In Kyrgyzstan and Uzbekistan, for instance, at the community level a central role is taken up by the *aksakals*, or elders, typically well-respected older male members of the community who are given a leading role in the community (Earle 2005; Kreikemeyer 2020). *Aksakals* are seen as symbolising a caring civic community that offers alternative values to the neoliberal values espoused by markets and elites (Satybaldieva 2018). At the community level, there is also the traditional practice of *khashar*, also known as *ashar*, a form of collective voluntary work, in which people from the community are expected to provide assistance for community members as part of a joint effort to improve living standards within the community (ibid.).

The extent to which local forms and practices of self-organisation and self-reliance in Central Asia act as functions of resilience-building was vividly illustrated during the COVID-19 pandemic (Gleason and Baizakova 2020). As similar crises are likely to emerge in the future, societal resilience will need to be significantly enhanced in order to cope with the shocks that such crises create. This applies not least to the case of climate change, as its devastating effects are only set to increase. I argue that resilience strategies involving the sharing of responsibilities among individuals and communities will increase the ability of Central Asian countries to respond to major crises such as climate change.

In Central Asia, especially in Kazakhstan, Kyrgyzstan and Tajikistan, reports suggest that local civil society actors have been playing a conducive role in fighting climate change by mobilising resources to take local climate and environmental measures thanks to their awareness of the locally attuned knowledge and the capacities of local people (OSCE 2017). However, to date, we lack further concrete information on this as no research has yet been conducted that systemically explores the role that local communities and organisations play in addressing climate change and

environmental challenges in Central Asia. Therefore, in the remaining part of this chapter, a brief exploratory analysis will be offered on how home-grown forms of self-governance and self-organisation that embody an indigenous understanding of the good life are building climate resilience in Central Asia.

3 Local Self-Governance to Boost Climate Resilience in Central Asia

The mountainous areas in Central Asia have proven particularly vulnerable to the effects of climate change (Hughes 2012; Xenarios et al. 2019). One of the main issues is the degradation of pastures as a result of changes in precipitation, which is often further exacerbated by excessive grazing (Wang et al. 2020). Importantly, local initiatives at the community level are proving pivotal in responding to these climate pressures and fostering grassland restoration. In Kyrgyzstan, a recent study found that, while almost 60% of the country's pasturelands continue to experience grassland degradation, 40% of Kyrgyzstan's grasslands have actually expanded, as a direct result of community-level activities focused on grassland recovery (Wang et al. 2020).

Across the mountain regions in Kyrgyzstan and Tajikistan, several cases can be found of local forms of self-governance and self-organisation that seek to reduce the environmental vulnerability of the local communities and adapt pastoralism to the effects of climate change. In Kyrgyzstan, such initiatives started to emerge from the early 2000s onwards and have become more prominent since the enactment of the Kyrgyz Republic Law of Pasture in 2009. By introducing this law to enhance the sustainability of pasture use, the Kyrgyz government sought to overcome the problem of fragmentation and rehabilitate rangeland by decentralising the policy and delegating responsibility for managing pastures to community-based user units (Wang et al. 2020). This decentralisation process included the establishment of democratically elected pasture committees, which are mandated to oversee the management of the pastures (Hughes 2012). Since then, the region has witnessed the emergence of various types of local organisations which are involved in the sustainable management of grasslands, including community-based organisations, such as the so-called 'Village Organisations' and other types of civil society organisation (CSO). As Hughes (2012, 108) reported, this prompted 'a heightened sense of community and sense of responsibility for the stewardship and ownership of resources', which 'is apparent when herders and community members sit together to coordinate their moves to summer pastures, repair bridges by mobilizing their own resources or develop and implement pasture use plans'.

Among the CSOs that emerged in the wake of these developments in Kyrgyzstan are mountain-focused non-governmental organisations (NGOs), such as the Institute for Sustainable Development Strategy (ISDS) Public Fund, as well as various mountain associations. The NGOs tend to act as bridges between various levels

of stakeholders, connecting national governments to village institutions and the general public. According to Hughes (2012, 93), 'they often communicate "mountain voices", advocate for interactive and open processes of policy formulation and act to bridge any gaps between new legislation and strategies and the realities in mountain communities'. Mountain associations, in turn, focus on the promotion of mountain environmental knowledge and the cultivation of responsible outdoor traditions, and they organise activities such as picking up litter (Hughes 2012).

At the community level, there is also the Alliance of Central Asian Mountain Communities (AGOCA). This association, which was created in 2003, is based in Kyrgyzstan and also includes mountain villages in Kazakhstan and Tajikistan. The alliance consists of citizen associations at the community level that are working towards improving the living conditions of mountain communities, including their capacity to adapt to the pressures of climate change (Kohler and Maselli 2012). They act as self-governance bodies that implement development projects and 'communicate needs, ideas, and visions to state representatives at the local level, and negotiate with them' (ibid., 41).

Together, this wide range of local organisations and forms of self-governance at the community level are playing a crucial role in enhancing societal resilience to climate change in the mountain areas of Central Asia. Importantly, the emergence of this locally embedded involvement in addressing the effects of climate change is being increasingly accompanied by a revival of traditional knowledge and practices. In the specific case of pasture management, there is a tendency to advocate the revival and preservation of traditional pastoralism practices to reduce the vulnerability of ecosystems as a result of climate change. For instance, a recent project overseen by the ISDS Public Fund together with the Cholpon Pasture Users Union specifically promoted the integration of traditional nomadic knowledge and practices into community-based pasture conservation in the Cholpon rural municipality (ISDS 2019). Situated in the north of Kyrgyzstan, this area has been harshly affected by the combination of excessive grazing and irregular precipitation due to climate change. Having abandoned traditional pastoral knowledge and practices for decades, local pastoralists are once again increasingly relying on the traditional knowledge and practices inherited from their ancestors in order to sustainably maintain their livelihoods and enhance their resilience to the effects of climate change (ISDS 2019).

Importantly, some of these initiatives have been successfully supported by international donors. Indeed, the creation of AGOCA was an outcome of the Global Mountain Summit held in Bishkek in 2002. The summit was the closing event of the UN's International Year of Mountains, which sought to promote 'the conservation and sustainable development of mountain regions, thereby ensuring the well-being of mountain and lowland communities' (Nikonova et al. 2007, 24). However, as stakeholders acknowledged that the participatory process provided hardly any space for the voices of the mountain communities themselves, the Central Asian Mountain Partnership (CAMP), a programme created in 2000 and funded by the Swiss Agency for Development and Cooperation, decided to organise the first Conference of Mountain Communities for Sustainable Development as a pre-summit event (Nikonova et al. 2007). As a major outcome of the second conference that took place in Tajikistan the

following year, AGOCA was created as a way to stimulate mountain communities to organise themselves in order to stand up to the environmental pressures and effects of climate change (ibid.).

CAMP itself was created by the Swiss Agency for Development and Cooperation to promote sustainable mountain development in Central Asia 'by encouraging a more economically, ecologically and socially sustainable use of resources, through different stakeholders in Kyrgyzstan, Tajikistan, and Kazakhstan' (SDC 2009). Together with other international development players, CAMP has stimulated local communities to take matters into their own hands in order to enhance their resilience to environmental challenges and climate change. Among other things, by relying on participatory and community-based approaches, CAMP has contributed to improved pasture management practices in Kyrgyzstan by introducing a flexible pasture management system (Hughes 2012).

Importantly, both through AGOCA and through projects funded by CAMP and other international development players, a specific role in these endeavours is played by locally embedded organisations and home-grown forms of self-governance that reflect an indigenous understanding of the 'good life' as conceptualised in the preceding section. Indeed, as reported by Nikonova et al. (2007), in the case of AGOCA, the traditional local governance bodies *ayul okmoty* in Kyrgyzstan, *jamoat* and *hukumat* in Tajikistan, and *akimat* in Kazakhstan fulfil an important function in enhancing community resilience thanks to their capacity to mobilise the local community, including in the form of the traditional custom of *khashar* (*hashar* in Tajikistan, *assar* in Kazakhstan), which is still being practised in mountain regions in Central Asia as a form of collective action (see above).

In the majority of environmental projects involving local partners, these traditional governance bodies have played a crucial role. This was the case, for instance, in the transboundary Pamir-Alai Land Management (PALM) project, which was funded by the Global Environment Facility (Hughes 2012), and in the CAMP Kuhiston project in Tajikistan (ibid.). The latter project, which sought to link disaster risk management with the planting of suitable fruit tree species to enhance land productivity in Nurobod District in central Tajikistan, benefited from the involvement of the *jamoat* (ibid.). Among other things, the head of the village initiated a *khashar* to mobilise the local population to erect a wire fence and to plant saplings (ibid.).

4 Conclusion

Drawing on post-development thinking, which emphasises the value of self-reliance linked to the notion that people are the agents of their own change and should act based on their local knowledge about what is good for them, this chapter has argued that resilience strategies involving the sharing of responsibilities among individuals and communities will increase the ability of the Central Asian countries to stand up to the impacts of climate change.

The extent to which local forms and practices of self-organisation and self-reliance in Central Asia help to build resilience has been vividly illustrated during the COVID-19 pandemic. Indeed, during the pandemic, civil society and community-based initiatives across Central Asia were instrumental in addressing the direct impacts of the pandemic, especially in areas where governments fell short, such as medical support and the provision of information and social protection. While the COVID-19 pandemic has revealed and exacerbated existing challenges in Central Asia relating to, among other things, poor state governance and weak state capacities, it has highlighted the key role that grassroots civil society and community-based practices of self-reliance play in strengthening resilience in the face of a major crisis.

Much more than in Western societies, societies in Central Asia are collective in nature rather than individualistic. This also implies that solidarity among members of the community is much more embedded in local practices and customs than in Western societies. Moreover, in Central Asia, state capacity is not always strong enough to cope with a crisis of great magnitude, and vital public services are deficient. As we have seen above, this also applies to the governments' capabilities of addressing the effects of climate change. As similar crises are likely to emerge in the future, societal resilience will need to be significantly enhanced in order to cope with the shocks that such crises create. This applies not least to the case of climate change, as its devastating effects are only set to increase.

In Central Asia, major international donors like the EU, the World Bank and the UNDP should therefore draw lessons from the societal responses in the region to the COVID-19 crisis, and thus support more actively the ability of local societal actors to self-organise and draw on their own local strength and knowledge of available resources. Our brief exploratory analysis has shown how home-grown forms of self-governance and self-organisation in the mountainous areas of Central Asia are already building resilience to climate change. Some international donors, such as the Swiss Agency for Development and Cooperation, have already adopted more locally owned and locally driven approaches to enhancing climate resilience in Central Asia. Their approach appears to endorse the post-development notion that people are the agents of their own change and should act based on their local knowledge and capacities. The other major donors in the region that are promoting climate resilience should follow suit. Indeed, instead of moulding resilience-building externally, these international donors need to acknowledge that resilience-building starts internally, from the communities, drawing on their existing resources and knowledge and their local understanding of 'good life'.

References

Berdiqulov A, Buriev M, Marinin S (2021) Civil society and the COVID-19 governance crisis in Kyrgyzstan and Tajikistan. Institut für Europäische Politik, Berlin

Boboyorov H (2013) The ontological sources of political stability and economy: Mahalla mediation in the rural communities of Southern Tajikistan. Crossroads Asia Working Paper Series, 13, Bonn

- Cabar (2021) State and civil society during the COVID-19 pandemic in Central Asia, September 27. https://cabar.asia/en/state-and-civil-society-during-the-covid-19-pandemic-in-central-asia.
- Earle L (2005) Community development, 'tradition' and the civil society strengthening agenda in Central Asia. Cent Asian Surv 24(3):245–260
- Escobar A (1995) Encountering development. The making and unmaking of the third world. Princeton University Press, Princeton
- European Commission and High Representative of the Union for Foreign Affairs and Security Policy (2019) Joint Communication on the EU and Central Asia: new opportunities for a stronger partnership, Brussels, May15.
- European Union (2016) Global strategy for the European Union's foreign and security policy: 'shared vision, common action: a stronger Europe', Brussels, June
- Gleason G, Baizakova K (2020) COVID-19 in the Central Asian region: national responses and regional implications. Connect: Q J 19(2):101-114
- Gudynas E (2011a) Buen Vivir: today's tomorrow. Development 54:441-447
- Gudynas E (2011b) Good life: germinating alternatives to development. America Latina en Moviemento, issue 462
- Hughes G (ed) (2012) University of Central Asia, Zoï Environment Network, Mountain Partnership, GRID-Arendal. 2012. Sustainable Mountain Development. From Rio 1992 to 2012 and beyond. Central Asia Mountains. https://ucentralasia.org/media/bllawjt1/web-caf-central-asia-mountains.pdf
- ISDS—Institute for Sustainable Development Strategy Public Fund (2019) Traditional knowledge for climate resilience: collaborative strategies to mitigate vulnerability and enhance adaptation of pastoralism to climate change. https://satoyama-initiative.org/wp-content/uploads/2019/06/ISDS_IPSI-Case-Study-Summary-Sheet-web-min.pdf
- Jerez Y, Morrissey J (2020) Subaltern learnings: climate resilience and human security in the Caribbean. Territ Polit Gov. https://doi.org/10.1080/21622671.2020.1837662
- Joseph J, Juncos AE (2019) Resilience as an Emergent European Project? The EU's place in the resilience turn. J Common Mark Stud 57(5):995–1011
- Kohler T, Maselli D (eds) (2012) Mountains and climate change—from understanding to action. Bern, Geographica Bernensia
- Korosteleva E (2018) Paradigmatic or critical? Resilience as a new turn in EU governance for the neighbourhood. J Int Relat Dev. https://doi.org/10.1057/s41268-018-0155-z
- Korosteleva E (2019) Reclaiming resilience back: a local turn in EU external governance. Contemp Secur Policy. https://doi.org/10.1080/13523260.2019.1685316
- Korosteleva E, Petrova I (2020) Resilience is dead. Long live resilience? Italian International Affairs Institute. https://www.iai.it/en/pubblicazioni/resilience-dead-long-live-resilience? fbclid=IwAR3PTlugF1wKU0qJtkzaoJFxziDqVpEMdOU7roRAin3dD9uFJEU6HL9y1WQ.
- Kreikemeyer A (2020) Local ordering and peacebuilding in Kyrgyzstan: what can customary orders achieve? J Interv Statebuilding. https://doi.org/10.1080/17502977.2020.1758425
- Nikonova V, Rudaz G, Debarbieux B (2007) Mountain communities in Central Asia: networks and new forms of governance. Mt Res Dev 27(1):24–27
- OSCE (2017) Climate change and security in Central Asia. Regional Assessment Report. https://www.osce.org/secretariat/355471
- Reyer C, Otto IM, Adams S et al (2017) Climate change impacts in Central Asia and their implications for development. Reg Environ Chang 17:1639–1650
- Satybaldieva E (2018) Working class subjectivities and neoliberalisation in Kyrgyzstan: developing alternative moral selves. Int J Polit Cult Soc 31:31–47
- Schöneberg J (2016) Making development political. NGOs as agents for alternatives to development. Baden-Baden, Nomos
- SDC—Swiss Agency for Development and Cooperation (2009) Central Asia Mountain Partnership Programme (CAMP). https://www.aramis.admin.ch/Texte/?ProjectID=23960.
- Sommer R, Glazirina M, Yuldashev T et al (2013) Impact of climate change on wheat productivity in Central Asia. Agric Ecosyst Environ 178:78–99

Vakulchuk R, Daloz AS, Overland I, Sagbakken HF, Standal K (2022) A void in Central Asia research: climate change. Cent Asian Surv: 1–20. https://doi.org/10.1080/02634937.2022.205 9447

Wang Y, Yue H, Peng Q, He C, Hong S, Bryan BA (2020) Recent responses of grassland net primary productivity to climatic and anthropogenic factors in Kyrgyzstan. Land Degrad Dev 31:2490–2506

Xenarios S, Gafurov A, Schmidt-Vogt D et al (2019) Climate change and adaptation of mountain societies in Central Asia: uncertainties, knowledge gaps, and data constraints. Reg Environ Chang 19:1339–1352

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