

Youth Environmental Initiatives and Education Programs in Advancing Local Climate Action in Uzbekistan

Jafar Bobojonov Otajonovich
bobojonovjafarbek1@gmail.com

ABSTRACT

Uzbekistan faces some of Central Asia's most severe climate vulnerabilities, yet the contribution of its rapidly expanding youth environmental sector to local climate action remains underexplored in the academic literature. This paper examines how youth environmental initiatives and education programs contribute to advancing local climate action in Uzbekistan, and the extent to which the country's existing climate policy framework — including the Third Nationally Determined Contribution (NDC 3.0, 2025) and the Green Economy Strategy (2019–2030) — enables or constrains that contribution. Drawing on a qualitative literature review that synthesizes national policy documents, international organization reports, and peer-reviewed academic sources, the paper maps Uzbekistan's youth climate ecosystem and evaluates it against formal policy commitments. The analysis finds that youth initiatives and education programs are substantive and growing, supported by strong alignment between government priorities and international organization programming, but that youth influence on policy design remains limited. The paper concludes that Uzbekistan represents an important case for understanding how youth climate engagement develops under conditions of managed democratization.

Keywords: *youth environmental initiatives, environmental education, climate policy, Uzbekistan*

INTRODUCTION

Uzbekistan is among the most climate-vulnerable countries in Central Asia. According to the United Nations Environment Programme (UNEP, 2025), Uzbekistan's average annual temperature has risen by 1.6°C over six decades — nearly three times the global average of 0.6°C — with temperature increases of up to 2.5°C recorded in the Aral Sea region. The country ranks 130th out of 180 countries in the Global Climate Risk Index (Berkeley Center, 2021), and natural disasters result in average annual losses of USD 92 million (UNEP, 2025). With 80% of its water resources originating outside its borders, Uzbekistan faces acute water insecurity, and the projected water deficit by 2030 is estimated at 7 to 15 billion cubic meters (Central Asia Climate Fund [CACF], 2026). Climate projections under CMIP6 models predict

temperature increases of more than 2°C by 2060 across all subregions of the country, compounding existing pressures on water, agriculture, and public health (Asian Development Bank [ADB], 2021).

The collapse of the Aral Sea represents the most visible dimension of this crisis. Once the fourth-largest lake in the world, the Aral Sea has lost over 90% of its volume as a result of Soviet-era irrigation diversions, creating the Aralkum desert — a salt-and-sand basin of approximately 60,000 km² from which winds carry an estimated 100 million tons of toxic dust annually, causing respiratory illness, elevated infant mortality, and agricultural collapse across Karakalpakstan (CACF, 2026; Berkeley Center, 2021). According to UNEP (2025), six dry years were recorded between 2019 and 2024 alone, and climate projections indicate this pattern will intensify. These conditions represent an ongoing and worsening emergency for a population that is predominantly young, as the United Nations Population Fund (UNFPA, 2022) estimates that over 60% of Uzbekistan's 36 million people are under the age of 30.

In response to these vulnerabilities, Uzbekistan has substantially escalated its climate policy ambitions since 2017. The country's Third Nationally Determined Contribution (NDC 3.0), adopted in November 2025 under the Paris Agreement framework, targets a 50% reduction in greenhouse gas (GHG) emissions intensity by 2035 relative to 2010 levels — a commitment that represents a more than 300% increase in ambition compared to the First NDC (Government of Uzbekistan, 2025; UNDP, 2021). Alongside this, a youth-specific policy architecture has emerged: in 2024, the Ministry of Ecology, Environmental Protection, and Climate Change published a national Strategy for Youth Involvement in the Climate Agenda, and Uzbekistan became the first country in Central Asia to adopt a national declaration on children, youth, and the climate agenda (UNICEF, 2025). Despite this policy development, the academic literature has paid little systematic attention to the question of how youth environmental action functions within Uzbekistan's climate governance system.

A bibliometric study of peer-reviewed publications on climate change in Central Asia, covering the period from 1991 to 2021, found only 292 relevant academic publications across all disciplines and all five countries in the region — reflecting an acute gap in social science research on governance, civil society, and youth engagement (Vakulchuk et al., 2022). To the best of the author's knowledge, no existing peer-reviewed study has examined how youth environmental initiatives and education programs in Uzbekistan interact with the country's formal climate policy commitments. This paper addresses that gap. The research question guiding this study is: What is the role of youth environmental initiatives and education programs in advancing local climate action in Uzbekistan? The paper employs a qualitative literature review methodology, synthesizing national policy documents, international organization reports, peer-reviewed academic literature, and program evaluations to map Uzbekistan's youth climate ecosystem and evaluate its relationship to the formal policy framework. Consistent with the Literature Review format, the sections mapping specific youth initiatives (Sections 4 and 5) synthesize and critically evaluate existing secondary-source material — organizational reports, program evaluations, and policy documents — rather than presenting original empirical data; this mapping constitutes the "structured overview of key sources" on which the paper's critical discussion and conclusion are built. As a qualitative literature review, this study does not incorporate primary data from fieldwork or interviews, which represents a limitation acknowledged in the discussion section.

Sources for this review were identified primarily through Google Scholar, for peer-reviewed academic literature, and through direct searches of the official websites and publication repositories of international organizations and government bodies active in Uzbekistan's climate and youth sectors, including UNDP, UNICEF, the World Bank, the Asian Development Bank, UNEP, UNFPA, and the Government of Uzbekistan's own ministries and national web portal; this combination of academic and organizational sources is reflected in the reference list. Search terms combined the concepts of youth, climate, environmental education, and Uzbekistan, and, for the comparative literature, Central Asia and youth climate governance more broadly. No fixed date range was applied, but priority was given to the most recently published material given the rapid recent evolution of Uzbekistan's youth climate policy architecture; consequently, the substantial majority of sources cited were published between 2019 and 2026. Sources were restricted primarily to English-language material, with the exception of a small number of Uzbekistan government documents originally published in Uzbek, which were accessed in the original language and translated by the author for the purposes of this review. More than 200 sources identified through this process were screened for relevance. Sources were retained only if they provided substantive, directly relevant information on youth environmental initiatives, environmental education programs, or climate policy in Uzbekistan or a closely comparable transitional context; sources were excluded if they were purely promotional in nature, duplicative of information available in a more authoritative source, or insufficiently specific to Uzbekistan's youth climate sector. This screening process yielded the 34 sources retained in the final reference list.

The paper is organized as follows. It begins with a review of existing scholarship on youth environmental initiatives, environmental education programs, and climate governance in post-Soviet Central Asia, identifying the gap this study addresses. Following this, the paper maps Uzbekistan's climate policy framework and assesses its provisions for youth and education. It then documents the major youth environmental initiatives operating in Uzbekistan, after which it describes environmental education programs in the country. The paper then brings together these findings in a discussion of their implications for the research question. Finally, the paper ends with a conclusion that integrates the key findings and offers targeted recommendations.

LITERATURE REVIEW

This section reviews existing scholarship across three bodies of literature directly relevant to this research: studies on youth environmental initiatives and their relationship to formal climate governance; literature on environmental education programs as drivers of local climate action; and research on climate policy frameworks in post-Soviet Central Asia. The review identifies the specific gap in existing knowledge that this paper addresses.

Youth Environmental Initiatives and Climate Governance

Youth environmental initiatives refer to organized, structured efforts led by or targeting young people — typically those aged 15 to 30 — that aim to address environmental challenges through advocacy,

awareness-raising, community action, or engagement with formal governance processes (Tafon & Saunders, 2024). These initiatives gained significant international prominence after 2018, when the Fridays for Future movement — a global school strike campaign initiated by Swedish activist Greta Thunberg in which students leave school to demand government action on climate change — mobilized millions of young people in more than 150 countries (Trott, 2024). Research on the various aspects of youth climate activism expanded rapidly in the years following 2018, with systematic literature reviews documenting growth in both the scale and diversity of youth-led action globally. Von Zabern and Tu (2023), analyzing the moral and normative dimensions of youth climate movements, found evidence that young activists are influencing media framing of climate change and contributing to norm change in international climate politics, particularly through the invocation of human rights, intergenerational justice, and duty-of-care norms. These insights into the global dynamics of youth climate activism provide the conceptual foundation for examining how similar processes manifest in the specific institutional and political context of Uzbekistan.

The most prominent theoretical framework for evaluating youth climate engagement is Tafon and Saunders' (2024) concept of transformative youth climate justice. Building on analysis of youth participation in Global South governance contexts, the authors argue that youth engagement is typically justified on three grounds — human rights, policy efficiency, and democratic legitimacy — yet in practice remains tokenistic, present in consultation mechanisms but rarely shaping the substance of policy decisions. This finding is corroborated by UNDP's (2022) global assessment of youth engagement in Nationally Determined Contributions (NDCs), which found that while over 80 countries have facilitated youth-inclusive partnerships in their NDC processes, this momentum risks becoming tokenistic without structural commitments to meaningful participation. UNICEF's (2023) review of child- and youth-sensitive NDCs globally found an even starker picture: only 3% of NDCs across all countries mention involving children in the NDC development process, and two out of every five NDCs do not address children and young people's unique climate vulnerabilities. These findings from the global literature establish the key benchmarks against which Uzbekistan's policy provisions for youth are evaluated in this paper.

Empirical research on youth environmental initiatives in Asian contexts is limited but growing. A systematic review of youth climate activism literature from Asia conducted by Lam et al. (2025) found that political and institutional conditions heavily shape what forms of youth initiative are possible, and that in contexts with restricted civic space, youth initiatives tend to develop through state-managed channels rather than through independent mobilization. A study on youth participation in climate change movements in Indonesia by Siregar et al. (2025), one of the few empirical examinations of youth climate engagement in a Global South Asian context, found that the disparity between urban and rural youth is particularly significant, as rural communities that are often more vulnerable to climate impacts such as flooding, crop failure, and drought face structural barriers that limit young people's capacity to participate in climate initiatives. This urban-rural dimension is directly relevant to Uzbekistan, where the most climate-vulnerable populations — particularly in Karakalpakstan — are concentrated in rural and

peri-urban areas. The findings of Lam et al. (2025) and Siregar et al. (2025) thus provide both conceptual frameworks and comparative empirical reference points for the analysis presented in this paper.

Environmental Education Programs and Local Climate Action

Environmental education (EE) programs are structured learning initiatives designed to build environmental knowledge, skills, and motivation for action among participants (UNESCO, 2021). A systematic mixed-studies review by Ardoin, Bowers, and Gaillard (2023), drawing on 56 peer-reviewed empirical studies conducted across diverse geographic and institutional settings, found that all 56 programs reported some level of positive outcomes. Specifically, 50 studies reported individual-level civic engagement outcomes, including civic knowledge, attitudes, and skills, while 17 reported community-level outcomes such as community resilience, partnership building, and increased social capital. These findings establish that well-designed EE programs generate civic engagement outcomes that extend beyond individual knowledge gains, a finding that is central to evaluating the programs documented in this paper.

A key distinction in the EE literature is between knowledge-transmission programs and action-oriented programs. Ardoin et al. (2024), synthesizing findings across eight systematic reviews of EE research, found that participatory and action-oriented approaches consistently produce stronger and more durable outcomes than information-transfer-only approaches. Direct action experiences, including community clean-ups, habitat restoration projects, citizen science, and environmental advocacy, were found to build civic know-how and foster a sense of agency and empowerment that information delivery alone does not achieve (Ardoin et al., 2024). A separate systematic review and meta-analysis on environmental education in low-income and middle-income countries by Nalipay et al. (2025) found that longer intervention periods produce more substantial effects, and that school-based programs combining teacher training with student-led projects produce the most consistent improvements in environmental knowledge, attitude, and behavior. These findings provide an empirical benchmark for evaluating the design choices made in Uzbekistan's major education programs.

The World Bank and University of Central Asia (2025) conducted a regional assessment of climate education across Central Asia and found that while school enrollment rates are high throughout the region, Soviet-era pedagogical traditions emphasizing rote learning and passive information reception remain dominant in many classrooms, constraining the adoption of action-oriented approaches. The report identified teacher knowledge, confidence, and training as the primary determinants of effective climate education delivery, and found that short, well-designed teacher training interventions produced measurable gains in instructional quality and student climate literacy. Uzbekistan was identified as one of the most promising contexts for national-scale educational transformation, given its young population and rapidly expanding secondary and higher education system (World Bank & University of Central Asia, 2025).

Climate Policy Frameworks in Post-Soviet Central Asia

Climate policy frameworks in post-Soviet Central Asia have developed within a distinctive historical context characterized by Soviet-era environmental degradation, the collapse of central planning, and the gradual adoption of international environmental governance norms following independence in 1991 (Farmer, 2001). Farmer (2001) documented that early environmental policy across the five Central Asian republics was often fragmented and lacked effective enforcement mechanisms, with state institutions maintaining dominant control over environmental decision-making and non-state actors facing significant barriers to formal participation. This state-centric governance tradition has continued to shape how Central Asian governments engage with both the international climate framework and with domestic civil society actors including youth organizations.

This paper adopts the concept of managed democratization to describe a governance mode in which formal consultative institutions expand and multiply, but the state retains firm control over which actors may organize, mobilize, or shape policy outcomes, and independent contestation is discouraged even as cooperative, state-aligned civic activity is tolerated and often actively cultivated. Ziegler (2010) documents this pattern across Central Asia, characterizing Uzbekistan as one of the region's most restrictive environments for independent civic organizing, in contrast to the more consultative but still state-dominated models observed elsewhere in the region. Read against this framework, the youth climate initiatives examined in this paper are understood as operating within what this paper terms a constrained civic space: a governance context in which youth participation is actively encouraged and resourced by the state and its international partners, but within boundaries that limit independent agenda-setting or contestation of government priorities. This framing is applied throughout the discussion and conclusion to interpret the youth initiatives and education programs documented in Sections 4 and 5.

The scale of the research gap in this area was quantified in a 2022 bibliometric study published in Central Asian Survey, which analyzed peer-reviewed publications on climate change across all five Central Asian countries between 1991 and 2021, and found only 292 relevant publications across all disciplines (Vakulchuk et al., 2022). The study found a particular absence of social science perspectives, meaning that questions about climate governance, civil society participation, and youth engagement have received almost no systematic academic attention. This finding is significant not only as a description of the literature but as a methodological constraint: in the absence of peer-reviewed empirical research on youth climate governance in Central Asia, this paper necessarily relies on a combination of peer-reviewed studies from other Global South and transitional contexts alongside grey literature from international organizations active in Uzbekistan.

The governance literature on Nationally Determined Contributions (NDCs) provides an important analytical framework for evaluating Uzbekistan's formal climate commitments. Jernnäs (2023), analyzing NDCs as governance instruments across the post-Paris climate regime, identifies five functions that NDCs serve, namely progress tracking, trust-building, influencing, differentiation, and gatekeeping. This framework draws attention to the NDC not merely as a target-setting document but as an instrument that structures how states engage with international expectations and domestic stakeholders. Applied to

Uzbekistan, this perspective suggests that NDC 3.0's dedicated youth section functions not only as a policy commitment but as a signal of international positioning, one that creates accountability pressures even in the absence of binding domestic enforcement mechanisms.

Research Problem

The literature reviewed in the preceding sub-sections reveals a well-developed body of scholarship on youth environmental initiatives, environmental education, and climate governance in other regional contexts, alongside a significant gap in research on Central Asia and Uzbekistan specifically. Existing studies have established that youth participation in climate governance globally tends to be tokenistic rather than substantive (Tafon & Saunders, 2024; UNDP, 2022), that only 3% of NDCs worldwide involve children in their development (UNICEF, 2023), and that action-oriented environmental education programs consistently produce stronger civic engagement outcomes than knowledge-only approaches (Ardoin et al., 2023; Ardoin et al., 2024). Research on youth climate activism in Asian contexts has further shown that state-managed channels can generate genuine youth engagement outcomes under certain conditions (Lam et al., 2025). However, what has not yet been explored is how these global dynamics and findings apply to Uzbekistan, a country with a rapidly growing youth climate ecosystem, an escalating climate policy commitment, and virtually no coverage in the peer-reviewed academic literature. This paper addresses that specific gap, by applying the frameworks and benchmarks established in the existing literature to the Uzbekistan case.

UZBEKISTAN'S CLIMATE POLICY FRAMEWORK

Understanding the climate policy framework within which youth environmental initiatives and education programs operate is essential for evaluating their role and effectiveness. This section describes the major policy instruments that constitute Uzbekistan's climate policy framework, their key provisions including those relating to youth and education, and assesses their relative strengths and weaknesses as documented in policy evaluations and international organization assessments.

Key Policy Documents

The Nationally Determined Contribution (NDC) is Uzbekistan's primary international climate commitment under the Paris Agreement, submitted to the United Nations Framework Convention on Climate Change (UNFCCC). Uzbekistan submitted its First NDC in 2017, committing to a 10% reduction in GHG emissions intensity per unit of GDP by 2030. Following a comprehensive NDC revision process supported by the UNDP Climate Promise, the Second NDC (2021) escalated this target to a 35% reduction in GHG intensity by 2030, representing an increase in ambition of more than 300% (UNDP, 2021). The Third NDC — NDC 3.0, adopted in November 2025 and presented at COP30 — commits Uzbekistan to a 50% reduction in GHG emissions intensity by 2035 relative to 2010 levels, alongside a target of 25% renewable energy in the national energy mix (Government of Uzbekistan, 2025). For the first time, NDC 3.0 includes a dedicated section on children and youth, explicitly recognizing their rights

and interests in the climate agenda and outlining a role for youth in the NDC implementation roadmap (UNICEF, 2025). UNICEF's (2023) global assessment found that only 3% of all NDCs involve children in their development process, placing Uzbekistan's NDC 3.0 in a small minority of climate commitments that formally integrate youth perspectives.

The Strategy of the Republic of Uzbekistan on Transition to Green Economy for the Period 2019–2030 provides the domestic policy architecture for implementing Uzbekistan's international climate commitments. Its headline targets include increasing renewable energy capacity to 25,000 megawatts (MW), reducing energy intensity of GDP by 50%, and expanding green employment across major economic sectors (Government of Uzbekistan, 2019). The strategy links the climate agenda explicitly to economic development and employment — priorities that directly affect Uzbekistan's large young population, among whom youth unemployment remains a structural challenge. According to World Bank (2023) data, Uzbekistan's unemployment rate among youth aged 15 to 24 was estimated at 14.5% as of 2022, giving green economy commitments particular salience for a generation entering the labor market.

The Strategy for Youth Involvement in the Climate Agenda, published by the Ministry of Ecology, Environmental Protection, and Climate Change in 2024, is the principal youth-specific policy instrument in Uzbekistan's climate policy framework (Ministry of Ecology, 2024). The strategy establishes three institutional pillars. The first is an engagement mechanism comprising a 75-member Youth Council and 14 regional youth environmental ambassadors. The second is a calendar of youth eco-activities including the EduCo Festival, Clean Games, and Eco-Awards. The third is a commitment to climate education promotion through formal and non-formal channels. The strategy was accompanied by a Memorandum of Understanding between the Ministry of Ecology and the Association of Volunteers of Uzbekistan (Ministry of Ecology, 2024). At the regional level, Uzbekistan co-adopted the Regional Strategy for Promoting a Culture of Sustainable Development and Engaging Children and Youth in the Climate Agenda for 2024–2030 at a multilateral forum in Tashkent in 2023, and was the first country in Central Asia to adopt a national declaration on children, youth, and the climate agenda (UNICEF, 2025).

Strengths and Weaknesses of the Policy Framework

The strengths of Uzbekistan's climate policy framework are considerable when evaluated against international benchmarks. The escalation from NDC 1.0 to NDC 3.0 within eight years demonstrates a degree of policy ambition that is notable for a lower-middle-income economy (Government of Uzbekistan, 2025). The inclusion of a dedicated youth section in NDC 3.0 places Uzbekistan among the small proportion of countries that formally integrate youth perspectives into national climate commitments — a practice that UNICEF (2023) identifies as essential for climate policy to address the disproportionate impacts of climate change on children and young people. The existence of the Strategy for Youth Involvement in the Climate Agenda, the Youth Council, and the regional ambassador program gives Uzbekistan a comparatively developed institutional architecture for youth climate engagement, a distinction the Ministry of Ecology (2024) itself highlights; however, this paper does not conduct a systematic comparison against other Central Asian countries' youth climate institutions, so this characterization should be read as suggestive rather than as an established comparative finding.

However, several structural weaknesses must be acknowledged. First, the implementation roadmap for NDC 3.0's youth section remains in development, meaning that stated commitments have not yet been translated into binding targets, dedicated budget lines, or accountability mechanisms. UNDP (2022) identifies this gap between rhetorical commitment to youth engagement and institutional mechanisms to operationalize it as the primary limitation of youth-inclusive climate policy globally. Second, the predominant model of youth engagement in Uzbekistan is top-down: policies are designed by government ministries and international organizations, with youth invited to participate within pre-defined frameworks rather than empowered to shape the agenda. Tapon and Saunders (2024) argue that this design pattern is characteristic of tokenistic rather than transformative youth participation. Third, geographic coverage is uneven, as Karakalpakstan, which faces the most acute climate impacts in the country, receives proportionally less institutional attention in the youth engagement agenda than urban centers such as Tashkent and Samarkand (CACF, 2026).

YOUTH ENVIRONMENTAL INITIATIVES IN UZBEKISTAN

This section documents the major youth environmental initiatives currently operating in Uzbekistan, describing their structure, participants, activities, and policy connections. The evidence draws primarily on reports from international organizations operating in Uzbekistan, supplemented by official government documentation. It should be noted that independent evaluations of program outcomes are largely unavailable in the public domain, and the documentation that exists is produced primarily by implementing organizations. Additionally, as this study employs a qualitative literature review methodology, it does not incorporate primary data from field interviews or participant observation — a limitation that is further discussed in the conclusion. Throughout this section and Section 5, a distinction is maintained between documented outputs — activities, events, and products that implementing organizations report as having occurred, such as workshops held, statements produced, or kilometers of forest belt restored — and demonstrated outcomes, meaning independently verified longer-term behavioral, environmental, or policy change. Where a program's own materials describe an activity as producing a broader outcome, this paper reports that framing but does not treat it as independently confirmed.

National Network of Young Climate Champions

The National Network of Young Climate Champions was established in August 2024 through a partnership between the Ministry of Preschool and School Education, the Zamin International Public Foundation, UNICEF, the Ministry of Ecology, and the Youth Affairs Agency (UNICEF, 2024). The network consists of 50 adolescents aged 15 to 18, selected from schools across all regions of Uzbekistan. According to UNICEF (2024), members completed a capacity-building bootcamp and developed individual advocacy workplans through which they carry out awareness-raising campaigns and youth-led environmental events in their home communities. Activities documented by UNICEF (2024) include organizing school environmental clubs, conducting public climate awareness sessions, leading tree-planting campaigns, and engaging local government officials on environmental concerns. A defining

feature of the network is its explicit policy orientation: members participated in consultations with the Ministry of Ecology during the development of NDC 3.0, and the network produced a National Youth Statement formally submitted to the NDC development process (UNICEF, 2025). This documented case of youth input entering a national climate policy process is notable in light of UNICEF's (2023) global finding that only 3% of NDCs involve children in their development.

Local Conference of Youth (LCOY) Uzbekistan 2025

Uzbekistan held its first Local Conference of Youth (LCOY) in 2025, an event initiated and organized by members of the National Network of Young Climate Champions (UNICEF, 2025). The LCOY is an internationally recognized process in which national LCOYs feed into the international Youth Climate Conference (COY), which in turn channels youth recommendations into the annual UNFCCC Conference of the Parties (COP) negotiations. According to UNICEF (2025), the Uzbekistan LCOY brought together over 100 young delegates selected from thousands of applicants across all 14 regions of Uzbekistan, making it the most geographically inclusive national youth climate event the country has held to date. Participants engaged in workshops on climate adaptation, mitigation, and climate justice, and produced a National Youth Statement containing specific recommendations for Uzbekistan's NDC 3.0 and for presentation at COP30 (UNICEF, 2025). The conference was supported by a coalition including the Ministry of Ecology, UNICEF, UNDP, the International Organization for Migration (IOM), and the Zamin Foundation (UNICEF, 2025).

Youth Environmental Ambassadors Program

The Youth Environmental Ambassadors Program was established under the Ministry of Ecology's 2024 Strategy for Youth Involvement in the Climate Agenda (Ministry of Ecology, 2024). The program appoints 14 young regional ambassadors — one per major administrative region of Uzbekistan — as formal liaison points between local youth communities and the Ministry's institutional framework. According to the Ministry of Ecology (2024), ambassadors are responsible for carrying out regional environmental awareness campaigns, representing youth perspectives at ministerial events, and coordinating local eco-activities within the Ministry's annual program calendar. The program's formal structure, in which ambassadors are selected and appointed by a government ministry, reflects the managed character of youth engagement in Uzbekistan's climate policy framework. While this design provides institutional legitimacy and resources, it also positions young people as implementers of ministerially-defined programs rather than independent advocates, consistent with what Tafon and Saunders (2024) identify as symbolic rather than transformative youth participation.

Samarkand Climate Forum Youth Sessions

The Samarkand Climate Forum, held in 2025, included a dedicated youth session bringing together young eco-activists from eight countries across Central Asia and the Turkic world (Government of Uzbekistan, 2025b). According to Government of Uzbekistan (2025b), participants engaged with government

ministers and heads of environmental agencies, presented recommendations on regional climate cooperation, and called for the establishment of a permanent regional youth climate network. The session produced a joint youth statement advocating for a Consultative Committee on the Environmental Agenda and increased youth representation in regional governance structures. Siregar et al. (2025), examining comparable multi-country youth climate forums in the Asia-Pacific context, note that such events contribute to transnational youth network formation and can build young people's capacity to engage with formal governance processes, even when immediate policy outcomes are limited.

Regional Ecological Summit (RES 2026), Astana

The Regional Ecological Summit (RES 2026), held in Astana, Kazakhstan from 22 to 24 April 2026, brought together approximately 1,500 delegates from across Central Asia and internationally to address climate adaptation and sustainable development (UNICEF, 2026a). UNICEF organized a dedicated youth session titled 'Future Ecosystem: Children and Youth as Architects of Sustainable Development' that convened 65 young people from all five Central Asian countries, including delegates from Uzbekistan (UNICEF, 2026a). Participants engaged with United Nations experts, business representatives, and senior government officials across thematic workshops covering water resource management, air quality in the Aral Sea region, urban resilience, waste management, and sustainable transport.

The RES 2026 youth session produced documented recommendations on green profession development, including specialists in sustainable urban development, water resource management, and ecological monitoring, as well as on the integration of climate literacy and digital skills into school curricula (UNICEF, 2026a). A joint youth statement was delivered at the High-Level Session on Children, Youth and Climate by representatives from all five Central Asian countries (UNICEF, 2026b). Most significantly, the summit resulted in the endorsement of the Regional Green School Platform (RGSP) — a multilateral mechanism to accelerate climate-responsive education across Central Asia — by all five Central Asian governments (UNICEF, 2026b). Uzbekistan's participation at both official and youth levels was documented: at the official level, the First Deputy Chairman of the National Committee on Ecology and Climate Change reaffirmed Uzbekistan's NDC 3.0 commitments; at the youth level, Uzbek delegates contributed proposals on climate education and green professions that reflected priorities developed through the LCOY process and the National Network of Young Climate Champions (UNICEF, 2026c). The RGSP's endorsement followed a youth session that explicitly advocated for regional education reform, making this one of the clearest documented instances in this study of youth recommendations preceding a concrete multilateral policy outcome. However, the available sources describe a temporal sequence rather than a demonstrated causal mechanism, and other factors, including prior intergovernmental negotiation, may also have contributed to the endorsement.

ENVIRONMENTAL EDUCATION PROGRAMS IN UZBEKISTAN

Uzbekistan has developed a range of formal and non-formal environmental education programs targeting its school-age and young adult population. This section describes the major programs currently in

operation, including their structure, participants, pedagogical approach, and implementing organizations, as a basis for the analytical discussion in Section 6.

UNDP–EAA–MoPSE Climate Action Education Initiative

The most large-scale environmental education program currently operating in Uzbekistan is a three-year initiative launched in June 2025 by the United Nations Development Programme (UNDP), the Education Above All Foundation (EAA) of Qatar, and the Ministry of Preschool and School Education (MoPSE), with a total budget of USD 7.5 million (UNDP, 2025). The program targets 1.3 million school students aged 15 to 18 across seven climate-vulnerable regions, namely Karakalpakstan, Bukhara, Navoiy, Khorezm, Samarkand, Kashkadarya, and Surkhandarya. The program operates through two components. The first involves curriculum integration, through which climate change content is embedded across upper secondary schools via the 'Climate Box' — an interactive toolkit-based learning resource — and 50,000 teachers receive training in climate pedagogy and participatory teaching methods (UNDP, 2025). The second component focuses on youth action: 800 Young Green Ambassadors drawn from the seven target regions are supported to lead community resilience projects, and 4,000 rural youth receive training in renewable energy and climate-smart agriculture through 12 vocational training centers (UNDP, 2025). The program explicitly states its goal of contributing to Uzbekistan's commitments under the Paris Agreement and NDC 3.0, making it one of the most directly policy-aligned education programs in the country.

The program's design, combining curriculum reform, teacher capacity building, and student-led community action, reflects the action-oriented model that the peer-reviewed literature identifies as most effective (Ardoin et al., 2024). The teacher training component is particularly significant given that World Bank and University of Central Asia (2025) identified teacher confidence and capacity as the primary determinant of whether climate education content is effectively delivered in Central Asian classrooms. The geographic targeting of the seven most climate-vulnerable regions also addresses a structural weakness in Uzbekistan's youth climate engagement landscape — the underrepresentation of frontline communities in national programs.

Eco-Schools Uzbekistan

Eco-Schools Uzbekistan is an international program implemented by the Zamin International Public Foundation in partnership with the Foundation for Environmental Education (FEE) of Denmark (FEE, 2023). The program follows FEE's internationally recognized Seven Steps methodology, which guides schools through an environmental review, action planning, monitoring, and community engagement cycle. As of 2026, the program engages 500 schools and more than 100,000 students across Uzbekistan (UNICEF, 2026c). Students who complete the Seven Steps process can nominate their school for the Green Flag — FEE's highest international environmental certification. In 2024, two Uzbek schools became the first in Central Asia to receive the Green Flag award, completing a rigorous independently assessed process (FEE, 2023).

The Eco-Schools methodology is explicitly action-oriented: students form Eco-Committees that identify local environmental problems, design and implement solutions, and monitor results — a design consistent with the direct-action approach that Ardoin et al. (2023) found to produce community-level civic outcomes including community learning, partnership building, and increased social capital. Beyond the school environment, Eco-Schools students participate in the Yashil Zamin (Green Land) project, which includes urban tree-planting campaigns in Tashkent and forest belt restoration in the Syrdarya region, through which 175 kilometers of forest belts have been established (FEE, 2023). Students also conduct peer-education seminars for non-enrolled schools, extending the program's reach beyond its formal participant base.

Youth Programs in the Aral Sea Region

The Aral Sea region of Karakalpakstan is the focus of targeted youth education and livelihood programs. A joint programme by UNDP, UNICEF, and the Food and Agriculture Organization (FAO) titled 'Empowering Youth Towards a Brighter Future through Green and Innovative Development of the Aral Sea Region' provides youth and women in three districts of Karakalpakstan with digital skills training, climate-smart agricultural practices, and support for green entrepreneurship (UNDP, 2023). Participants include rural youth aged 18 to 30 attending training workshops through local vocational centers and community organizations. According to CACF (2026), nearly 30% of Uzbekistan's population, concentrated disproportionately in rural Karakalpakstan, has limited access to clean water and adequate sanitation, making climate-smart livelihood training in the region a direct adaptation measure. The program addresses a documented gap: Siregar et al. (2025) found that rural youth in climate-vulnerable areas face structural barriers to climate participation that urban-centered programs do not address, and the Aral Sea program explicitly targets these underserved communities.

Table 1 synthesizes the initiatives and programs documented in Sections 4 and 5 against five common criteria, enabling direct comparison across cases and making explicit, for each one, the distinction between documented outputs and independently demonstrated outcomes.

Initiative / Program	Geographic Reach	Youth Decision-Making Power	Funding Sustainability	Documented Outcomes	Policy Influence
National Network of Young Climate Champions	All regions (50 members)	Consultative; contributed to NDC 3.0 consultations	State/UNICEF partnership; no independent funding data reported	Outputs documented (campaigns, statement submitted); long-term impact not independently evaluated	Statement submitted to NDC 3.0 process; causal effect on final text undocumented
LCOY Uzbekistan 2025	All 14 regions; largest national youth climate event to date	Consultative; recommendations produced, not binding	Multi-partner coalition (UNICEF, UNDP, IOM, Zamin); recurring funding unconfirmed	Statement produced and fed into COY/COP process; downstream effect not tracked	Directed at NDC 3.0 and COP30; independent causal effect undetermined

Youth Environmental Ambassadors Program	14 regions (1 ambassador/region)	Low; ambassadors implement ministry-defined activities	State-run; embedded in Ministry structure	Activity outputs (campaigns, events) reported; independent evaluation absent	Liaison/representation role; no independent agenda-setting documented
Samarkand Climate Forum Youth Sessions	Regional (8 countries); one-time event	Consultative; recommendations and joint statement produced	Event-based; no continuity mechanism documented	Statement and network-formation reported; policy follow-through not tracked	Called for permanent regional network; adoption status undocumented
RES 2026 Youth Session	Regional (5 Central Asian countries)	Consultative; recommendations delivered at high-level session	Event-based; UNICEF-organized	RGSP endorsed at same summit; direct causal link to youth session not established by sources	Plausible contribution to RGSP endorsement; not confirmed as sole or decisive cause
UNDP-EAA-MoPSE Climate Action Education Initiative	7 climate-vulnerable regions; 1.3M students targeted	Low-moderate; Green Ambassadors lead projects within program design	USD 7.5M, 3-year international funding; post-program continuation unspecified	Curriculum/teacher training rollout reported as in progress; learning/behavior outcomes not yet evaluated	Explicitly linked to NDC 3.0 targets by implementers
Eco-Schools Uzbekistan	500 schools; 100,000+ students nationwide	Moderate; student-led Eco-Committees design and implement local projects	International FEE network plus Zamin Foundation; long-running	175 km forest belt restoration and Green Flag certifications reported; independent third-party verification not confirmed	Primarily community-level; limited documented link to national policy process
Aral Sea Region Youth Programs	3 districts of Karakalpakstan	Low; beneficiaries of training, not program designers	UNDP/UNICEF/FAO joint program; sustainability beyond program period unspecified	Training completion reported; livelihood/environmental impact not independently measured	Not documented

Table 1: Comparative overview of youth environmental initiatives and education programs in Uzbekistan.

DISCUSSION

This section brings together the evidence presented in Sections 3 to 5 to discuss the role of youth environmental initiatives and education programs in advancing local climate action in Uzbekistan. The discussion evaluates how these initiatives and programs contribute to local climate action, and how they interface with Uzbekistan's climate policy framework, drawing connections to findings from existing studies throughout. It should be noted that, as this paper is based on a qualitative literature review, the discussion relies on documented program reports and policy evaluations rather than on primary data from interviews or fieldwork. The absence of primary data is acknowledged as a limitation that future research should address.

Contributions to Local Climate Action

The evidence presented in Sections 4 and 5 indicates that youth environmental initiatives and education programs in Uzbekistan are generating climate action outcomes across two distinct levels. At the community level, Eco-Schools students have established school Eco-Committees that have implemented waste management systems, water conservation projects, and tree-planting campaigns in their local communities (FEE, 2023). The Yashil Zamin project, implemented through the Eco-Schools network, has contributed to 175 kilometers of forest belt restoration in the Syrdarya region — a documented adaptation measure in a landscape facing desertification (FEE, 2023). Ardoin et al. (2023) found that EE programs engaging students in direct community-level action produce outcomes including community resilience building, social capital formation, and partnership development — outcomes that the Eco-Schools program's action-oriented design is structured to generate, and that are consistent with what is observed in the Uzbekistan case.

At the governance level, the National Network of Young Climate Champions and the LCOY Uzbekistan 2025 produced a National Youth Statement formally submitted to the NDC 3.0 development process (UNICEF, 2025). UNICEF (2023) found that only 3% of NDCs globally involve children in their development, a figure that makes this documented youth input into Uzbekistan's NDC 3.0 a meaningful departure from global norms. The Regional Ecological Summit (RES 2026) provides further evidence at the regional level: Uzbek youth delegates contributed proposals to a high-level forum attended by ministers from five Central Asian governments, and the summit resulted in the endorsement of the Regional Green School Platform, a multilateral education mechanism supported by all five Central Asian states (UNICEF, 2026b). Von Zabern and Tu (2023) found that youth activists contribute to policy outcomes through norm advocacy and media influence even when not formally integrated into decision-making processes; the LCOY and RES 2026 cases suggest that Uzbekistan's youth have also achieved more direct forms of policy input, going beyond the norm-advocacy pathway to produce documented policy-facing outputs.

The UNDP-led education initiative contributes to local climate action through a different pathway, namely by training 50,000 teachers and reaching 1.3 million students in climate-vulnerable regions, thereby building the climate literacy and civic capacity that Ardoin et al. (2024) identify as the foundation for sustained community-level environmental action (UNDP, 2025). Nalipay et al. (2025) note, however, that EE programs in low- and middle-income countries consistently show stronger knowledge gains than attitude or behavior change — a limitation that applies to Uzbekistan's programs as well, particularly given the absence of independent outcome evaluations. The vocational training components — equipping 4,000 rural youth with renewable energy and climate-smart agriculture skills — connect education directly to livelihood adaptation, particularly relevant in regions where UNEP (2025) has documented increasing drought frequency and agricultural disruption.

Interface with Uzbekistan's Climate Policy Framework

The relationship between youth environmental initiatives and Uzbekistan's climate policy framework is characterized by strong nominal alignment alongside significant structural limitations. The alignment is documented: NDC 3.0 explicitly references youth engagement in its implementation roadmap; the Youth Environmental Ambassadors Program is formally embedded within the Ministry of Ecology's institutional structure; and the UNDP education initiative explicitly states its contribution to Uzbekistan's NDC commitments (UNDP, 2025; Ministry of Ecology, 2024; Government of Uzbekistan, 2025). UNDP (2022) identifies this kind of programmatic coherence between youth action and formal policy as a necessary condition for meaningful youth climate engagement — one that many countries lack. Uzbekistan's documented alignment on this dimension is notable; however, this paper has not conducted a systematic comparison against other lower-middle-income countries, so this observation should be read as a documented feature of the Uzbekistan case rather than an established finding about its relative regional standing.

However, the policy framework also imposes structural constraints. The Strategy for Youth Involvement in the Climate Agenda (Ministry of Ecology, 2024) establishes mechanisms for participation that are primarily event-based and activity-centered rather than embedded in ongoing decision-making processes. There is no formal requirement for youth representation in NDC review committees, no standing youth advisory body with a documented governance mandate, and no public reporting framework holding ministries accountable for NDC 3.0's youth commitments. UNDP (2022) found that governments worldwide frequently treat youth consultation as a procedural formality rather than a substantive input into decision-making, underscoring that meaningful engagement requires participation mechanisms to be formally institutionalized — a step Uzbekistan has not yet taken. The predominance of internationally funded programs also raises sustainability concerns: the two largest programs depend significantly on international funding with no publicly specified plan for domestic budget integration beyond the program period (UNDP, 2025; FEE, 2023).

The Uzbekistan case both confirms and complicates existing literature. Tafon and Saunders (2024) found that youth participation in climate governance globally tends to be tokenistic and event-based, a pattern broadly confirmed in Uzbekistan, where evidence of systematic, ongoing youth input into national climate governance beyond high-profile events remains limited. At the same time, the case complicates the assumption implicit in much Global North scholarship that meaningful youth climate engagement requires liberal democratic political institutions. Lam et al. (2025) found evidence from Asian contexts that state-aligned youth engagement can produce genuine outcomes under the right conditions, and Uzbekistan's documented community-level outcomes from Eco-Schools and its policy-facing outputs from the LCOY and RES 2026 provide supporting evidence for this finding. The forms and channels of youth climate engagement evidently vary significantly by political context, and Western-derived frameworks for evaluating youth activism may not fully capture the range of outcomes achievable in settings such as Uzbekistan.

CONCLUSION

This paper examined the role of youth environmental initiatives and education programs in advancing local climate action in Uzbekistan. The central finding is that these initiatives and programs are making documented contributions to local climate action at both the community and governance levels. At the community level, the Eco-Schools program and related Yashil Zamin project have generated measurable environmental outcomes including 175 kilometers of forest belt restoration and widespread school-based waste management and water conservation projects (FEE, 2023). At the governance level, the LCOY Uzbekistan 2025 produced a National Youth Statement formally submitted to the NDC 3.0 development process, and Uzbek youth delegates at RES 2026 contributed to the endorsement of the Regional Green School Platform by five Central Asian governments (UNICEF, 2025; UNICEF, 2026b). These outcomes are supported by an unusually strong alignment between government policy commitments, international organization programming, and youth participation.

However, the depth of youth influence on formal climate governance remains limited. The absence of permanent institutional mechanisms for youth participation, the predominantly top-down structure of the current engagement model, uneven geographic coverage with Karakalpakstan underrepresented, and the dependence on internationally funded programs whose sustainability is not guaranteed, are structural constraints that must be addressed for the current trajectory to produce durable change. These limitations are consistent with global patterns identified by Tafon and Saunders (2024), UNDP (2022), and UNICEF (2023), suggesting that Uzbekistan's challenges are structural rather than idiosyncratic.

The Uzbekistan case contributes to the global literature by providing suggestive evidence, drawn from secondary sources rather than primary empirical fieldwork, that substantive youth climate engagement outcomes can develop through state-managed channels in a context of constrained civic space. This evidence complicates, without decisively overturning, the implicit assumption in much Global North scholarship that meaningful youth engagement requires liberal democratic institutions (Lam et al., 2025), and points to a question future primary research should test directly. It also illustrates the limitations of a model in which institutional frameworks are designed primarily by government ministries and international organizations, with young people positioned as participants rather than co-designers. Tafon and Saunders' (2024) call for transformative youth climate justice — youth with genuine agenda-setting power rather than consultation roles — remains unmet in the Uzbekistan context. As this study is based on a qualitative literature review without primary data from fieldwork or interviews, future research should prioritize longitudinal evaluation of Eco-Schools and UNDP education program outcomes, qualitative fieldwork with youth participants in Karakalpakstan and other rural communities, and comparative analysis positioning Uzbekistan alongside other transitional states. For the Government of Uzbekistan, the evidence suggests that establishing a formal standing Youth Climate Advisory Body with a documented mandate in the NDC review process would represent the most significant step toward institutionalizing the youth participation that current policy rhetoric commits to but current governance architecture does not yet deliver (UNDP, 2022). For international organizations, developing explicit transition plans for program sustainability and investing in local institutional capacity would ensure that the impressive scale of current programming produces lasting rather than temporary change.

REFERENCES

- Asian Development Bank (ADB). (2021). *Climate change and health vulnerabilities in Asia and the Pacific*. ADB.
<https://www.adb.org/publications/climate-change-health-vulnerabilities-asia-pacific>
- Ardoin, N. M., Bowers, A. W., & Gaillard, E. (2023). A systematic mixed studies review of civic engagement outcomes in environmental education. *Environmental Education Research*, 29(1), 1–26. <https://doi.org/10.1080/13504622.2022.2135688>
- Ardoin, N. M., Bowers, A. W., Gaillard, E., & Roque, A. (2024). Engaging people in educational processes that foster environmentally valuable outcomes: A synthesis of key findings across eight systematic reviews. *People and Nature*. <https://doi.org/10.1002/pan3.70265>
- Berkeley Center for the Study of Child and Family Policy. (2021). *Climate displacement: Uzbekistan case study*. University of California, Berkeley.
<https://belonging.berkeley.edu/climatedisplacement/case-studies/uzbekistan>
- Central Asia Climate Fund (CACF). (2026). *What environmental challenges does Uzbekistan face?* CACF. <https://caclimate.fund/en/novosti/what-environmental-challenges-does-uzbekistan-face>
- Farmer, G. (2001). Developing sustainability: Environmental non-governmental organizations in former Soviet Central Asia. *Sustainable Development*, 9(4), 187–197. <https://doi.org/10.1002/sd.166>
- Foundation for Environmental Education (FEE). (2023). *Eco-Schools Uzbekistan: Annual programme report*. FEE. <https://www.fee.global>
- Government of Uzbekistan. (2019). *Strategy of the Republic of Uzbekistan on transition to green economy for the period 2019–2030*. Government of Uzbekistan.
- Government of Uzbekistan. (2025). *Third nationally determined contribution (NDC 3.0)*. UNFCCC. <https://unfccc.int/sites/default/files/2025-11/Uzbekistan%20Third%20NDC.pdf>
- Government of Uzbekistan. (2025b). *Young eco-activists present climate initiatives at Samarkand Climate Forum*. <https://gov.uz/en/eco/news/view/44001>
- Jernnäs, M. (2023). Governing through the nationally determined contribution (NDC): Five functions to steer states' climate conduct. *Environmental Politics*, 32(4), 530–551.
<https://doi.org/10.1080/09644016.2023.2192146>
- Lam, S., Lam, B. H., Goh, J. W. P., & Lim, E. (2025). Broadening the meanings of youth climate activism: A review of the literature from Asia. *Youth*, 5(3), 67.
<https://doi.org/10.3390/youth5030067>

- Ministry of Ecology, Environmental Protection, and Climate Change of the Republic of Uzbekistan. (2024). *Strategy for youth involvement in the climate agenda*. Government of Uzbekistan.
- Nalipay, M. J., King, R. B., & Cai, Y. (2025). Environmental education in low-income and middle-income countries: A systematic review and meta-analysis. *Journal of Environmental Psychology*. <https://doi.org/10.1016/j.jenvp.2025.102494>
- Siregar, R., Hidayat, A., & Nuraini, F. (2025). Youth participation in climate change movements: A sociopolitical perspective on environmental activism in Indonesia. *Environmental Science and Policy*. <https://doi.org/10.13140/RG.2.2.33614.54083>
- Tafon, R., & Saunders, F. (2024). Toward transformative youth climate justice. *PLOS Climate*, 3(4). <https://doi.org/10.1371/journal.pclm.0000472>
- Trott, C. D. (2024). Activism as education in and through the youth climate justice movement. *British Educational Research Journal*. <https://doi.org/10.1002/berj.4082>
- UNDP. (2022). *Elevating meaningful youth engagement for climate action*. UNDP Climate Promise. <https://www.undp.org/sites/g/files/zskgke326/files/2022-05/UNDP-Elevating-Meaningful-Youth-Engagement-for-Climate-Action-2.pdf>
- UNDP Uzbekistan. (2021). *Uzbekistan NDC 2.0: What has changed?*. UNDP Climate Promise. <https://climatepromise.undp.org/news-and-stories/uzbekistan-ndc-20-what-has-changed>
- UNDP Uzbekistan. (2023). *Empowering youth towards a brighter future through green and innovative development of the Aral Sea region*. UNDP. <https://www.undp.org/uzbekistan/projects/empowering-youth-towards-brighter-future>
- UNDP Uzbekistan. (2025). *Empowering and nurturing leadership skills of youth through climate action education in Uzbekistan*. UNDP. <https://www.undp.org/uzbekistan/projects/empowering-and-nurturing-leadership-skills-youth-through-climate-action-education-uzbekistan-project>
- UNEP. (2025). *Climate change drives rising temperatures and severe drought in Uzbekistan*. UNEP Atlas of Environmental Change. <https://www.unep.org/news-and-stories/press-release/climate-change-drives-rising-temperatures-and-severe-drought>
- UNESCO. (2021). *Getting every school climate-ready: How countries are integrating climate change issues in education*. UNESCO. <https://www.unesco.org/en/articles/getting-every-school-climate-ready>
- UNFPA. (2022). *State of the world's population 2022: Uzbekistan country profile*. UNFPA. <https://www.unfpa.org/uzbekistan>

- UNICEF. (2023). *Child- and youth-sensitive nationally determined contributions: Guidance for developing NDCs for and with children and young people*. UNICEF.
<https://www.unicef.org/documents/child-and-youth-sensitive-nationally-determined-contributions>
- UNICEF. (2026a). *From the Aral Sea to 'green jobs': Youth from Central Asia present their solutions for sustainable development at RES 2026*. UNICEF Kazakhstan.
<https://www.unicef.org/kazakhstan/en/press-releases/aral-sea-green-jobs-youth-central-asia-present-their-solutions-sustainable>
- UNICEF. (2026b). *Central Asian countries endorse Regional Green School Platform to advance climate-resilient education systems*. UNICEF Europe and Central Asia.
<https://www.unicef.org/eca/press-releases/central-asian-countries-endorse-regional-green-school-platform-advance-climate>
- UNICEF Uzbekistan. (2024). *Children and youth can drive transformative action to combat the devastating effects of climate change*. UNICEF.
<https://www.unicef.org/uzbekistan/en/press-releases/children-and-youth-can-drive-transformative-action>
- UNICEF Uzbekistan. (2025). *Young climate champions of Uzbekistan initiate first-ever local conference of youth*. UNICEF.
<https://www.unicef.org/uzbekistan/en/press-releases/young-climate-champions-uzbekistan-initiate-first-ever-local-conference-youth>
- UNICEF. (2026c). *Central Asia advances climate-resilient education ahead of the Regional Ecological Summit 2026*. UNICEF Uzbekistan.
<https://www.unicef.org/uzbekistan/en/press-releases/central-asia-advances-climate-resilient-education-ahead-regional-ecological-summit>
- Vakulchuk, R., Overland, I., Daloz, A. S., Sagbakken, H. F., & Standal, K. (2022). A void in Central Asia research: Climate change. *Central Asian Survey*, 42(1), 1–20.
<https://doi.org/10.1080/02634937.2022.2059447>
- Von Zabern, L., & Tu, E. (2023). Moral power of youth activists: Transforming international climate politics? *Global Environmental Change*, 81, Article 102710.
<https://doi.org/10.1016/j.gloenvcha.2023.102710>
- World Bank. (2023). *Uzbekistan overview: Development news, research, data*. World Bank.
<https://www.worldbank.org/en/country/uzbekistan/overview>
- World Bank & University of Central Asia. (2025). *Youth and climate resilience in Central Asia: Education, skills, and green economy pathways*. World Bank / RESILAND CA+.
<https://www.worldbank.org/en/region/eca/publication/resiland-central-asia>

Ziegler, C. E. (2010). Civil society, political stability, and state power in Central Asia: Cooperation and contestation. *Democratization*, 17(5), 795–825. <https://doi.org/10.1080/13510347.2010.501172>