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Social Attitudes of Kazakhstani Society and Their Influence on Psychological Readiness to Provide Volunteer Assistance to Migrants Affected by Climate Change

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Abstract. Background: Climate change is increasingly driving global migration. This study in Kazakhstan examines social attitudes and their impact on readiness to volunteer for migrants affected by climate change. We explored how media attention, trust in climate policy, and personal factors influence migration intentions and willingness to assist.

Methods: In 2023, a cross-sectional survey was conducted among adults (N=401) in five Kazakhstani cities (Aktobe, Almaty, Turkistan, Oral, Shymkent). In 2025, expert interviews were held in Uzbekistan. Analyses included correlations, paired t-tests, multiple regression, and mediation models.

Results: Consideration of emigration due to climate change was linked to attention to migration news and confidence in foreign governments' climate measures. Regression models showed that support for internal migrants and media attention strongly predicted volunteering, while socio-demographic factors (language, education) also influenced assistance. Respondents expressed greater willingness to help internal migrants than immigrants or foreign populations.

Conclusion: Kazakhstani society's concerns about climate-driven migration are shaped more by trust in international responses and migration planning than by domestic climate policy. Volunteer activity depends on institutional trust and personal awareness. Media coverage and political expectations strongly influence social attitudes, expressed in readiness to help different migrant groups.

Keywords: social attitudes, Kazakhstani society, climate change, volunteer activity, population migration.

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Introduction

In 1985, the Egyptian scholar Essam El-Hinnawi first introduced the term “environmental refugees” into political and scientific discourse. According to El-Hinnawi, “environmental refugees” are individuals who are compelled to leave their place of residence – either temporarily or permanently – due to environmental disruptions caused by natural phenomena or human activities, which either jeopardize the possibility of continued habitation or have deteriorated living conditions (El-Hinnawi, 1985). It is important to note that the term “environmental refugees” became established in the scientific literature only in the late 1980s and early 1990s. In one of the earliest works, Jacobson (1988) projected that by the end of the 1980s the total number of environmental refugees would exceed 10 million people. In 1992, the International Organization for Migration (IOM) issued a report highlighting the growing number of people forced to relocate due to environmental degradation and the shrinking of habitable land caused by climate change (IOM/RPG, 1992). According to the British environmentalist Norman Myers, the number of environmental refugees could reach between 150 and 200 million by 2050 (Myers, 1997, 2002).

The analysis of the Foresight analytical report *Migration and Global Environmental Change: Future Challenges and Opportunities* (The Government Office for Science, 2011) and the international agreement adopted at COP21 (UNFCCC, 2015) demonstrates that climate change and environmental degradation, alongside economic, political, and social factors, constitute key drivers of climate-related migration worldwide. In this regard, a number of measures are recommended to prevent large-scale climate migration and to foster adaptation to climate change.

Despite the wide use of the term “environmental refugees” in both academic and popular literature, the United Nations High Commissioner for Refugees (UNHCR, 1951, 2021) emphasizes that the term lacks official legal status and is not employed in UN normative documents as a basis for granting refugee status to this group of people.

The United Nations High Commissioner for Refugees (UNHCR, 2021) employs the neutral term “climate migrants.” The term refers to “persons displaced in the context of disasters and climate change.” According to the updated World Bank report (2021), the number of climate migrants across six regions of the world is projected to rise to 216 million by 2050.

At the same time, it should be noted that although the category of “climate migrants” is difficult to define, the Swiss scholar Walter Kälin (2010) proposed five scenarios of human mobility driven by climate change:

1. Sudden-onset disasters (such as floods, hurricanes/cyclones/typhoons, or landslides), which may lead to mass population displacement and enormous economic losses.
2. Slow-onset environmental degradation (including sea-level rise, increasing salinization of groundwater and soils, long-term consequences of recurrent floods, permafrost thaw, as well as droughts and desertification), which may result in a drastic reduction of water resources in some regions and recurrent flooding in others.
3. So-called “sinking” small island states (a particular case of slow-onset disasters), which may render such territories uninhabitable.

4. Government-declared high-risk zones deemed too dangerous for habitation due to environmental threats, leading to voluntary or forced relocation and prohibitions on return, with resettlement mandated in safer areas.

5. Social unrest and violent conflict that severely disrupt public order, potentially triggered by the scarcity of vital resources caused by climate change (such as water, arable land, or grazing pastures).

Durand-Delacre et al. (2021) observe that climate migrants are most often treated as abstract statistical units, while many scholars fail to take into account the social, cultural, political, and economic contexts in which migration occurs.

According to the Intergovernmental Panel on Climate Change (IPCC, 2023), regions with a continental climate, such as Central Asia, including Kazakhstan, are among the most vulnerable to the impacts of climate change. An analysis of the prevailing climate conditions in Asia in 2023 showed that the average temperature in the region was the second highest on record and reached record highs in Japan and Kazakhstan (World Meteorological Organization [WMO], 2024). Although climate change is a natural process, the current rapid warming driven by human activity is producing severe consequences: extreme droughts, water shortages, large-scale wildfires, sea-level rise, flooding, melting of polar ice, catastrophic storms, and biodiversity loss (United Nations, n.d.).

Both international and domestic experts note that populations in Central Asia are already facing water scarcity, which may adversely affect the social and economic development of certain regions. For instance, Samant and Prange (2023), using comparative analysis across six models and three socioeconomic pathways, estimated that the Caspian Sea level could drop by 9–18 meters by 2100, leading to the desiccation of the northern Caspian basin, with serious implications for the ecosystem, biodiversity, and economy of the entire Caspian region.

Climate change exerts such a profound global impact that United Nations Secretary-General António Guterres (United Nations Regional Information Centre for Western Europe [UNRIC], 2025) welcomed the long-awaited historic advisory opinion of the International Court of Justice (ICJ), issued on 23 July 2025, and declared that “all states are obliged to protect the global climate system in accordance with international law.”

In 2024, Kazakhstan experienced one of the largest floods in recent decades. According to Reuters (2024), more than 98,000 people were evacuated as a result of the flooding. Tatiana Mironyuk, Executive Director of the National Volunteer Network of Kazakhstan, reported that over 51,000 people from all regions of the country took part in the relief efforts, many of whom lacked specialized training (Sputnik Казахстан, 2024).

An analysis of the motivational sphere of volunteers shows that their work with refugees is driven by motives such as fulfilling a meaningful role, the tangible and visible impact of their volunteer activities, volunteer engagement, and emotional identification with refugees (Meijeren et al., 2024). It should be noted that as climate change progresses, the number of climate migrants worldwide will continue to grow (Yeung et al., 2017), and global climate change may become a source of increasing anxiety among populations (Qin et al., 2024).

In this context, the aim of the present study is to analyze the social attitudes of Kazakhstani society as reflected in the psychological readiness to provide volunteer assistance to internal migrants and immigrants affected by climate change.

Research questions:

1. How does the population of Kazakhstan perceive the problem of climate change and its impact on internal and international migration?
2. Is psychological readiness to provide volunteer assistance to climate migrants associated with the level of awareness and attention to news about climate and migration?
3. How do climate beliefs and perceptions of the effectiveness of climate policy (domestically and internationally) influence willingness to engage in volunteer activities?
4. Which socio-demographic characteristics (age, gender, education, nationality, language, etc.) are associated with greater or lesser willingness to assist internal migrants and immigrants affected by climate change?
5. To what extent does personal experience or consideration of potential climate migration affect readiness to volunteer?

Methods

Study Design and Participants

This cross-sectional survey study was conducted in Kazakhstan from October to November 2023, to examine public attitudes toward climate change, migration, and governmental responsibility, as well as individuals' willingness to assist climate-affected populations. A total of 401 participants were recruited using professional services provided by the Center for the Study of Public Opinion (CIOM, Kazakhstan) to ensure broader outreach and demographic diversity. Participants were required to be 18 years or older and reside in Kazakhstan at the time of participation. The study was conducted in Aktobe, Almaty, Turkistan, Oral, and Shymkent cities. In 2025, an expert interview was conducted in Uzbekistan.

Procedure

Data collection was conducted anonymously. Participants provided informed consent before proceeding to the survey. The questionnaire was administered in both Kazakh and Russian, and participants could select their preferred language. The study was conducted in accordance with internationally accepted ethical standards. Ethical approval was obtained from the Research and Ethics Committee of M. Narikbayev KAZGUU University, with approvals granted for both phases of the study: extract from protocol No. 2, dated September 25, 2023.

Measures

Sociodemographic variables included gender, age, language, educational attainment, marital status, occupation, place of residence (current and during ages 5-18), experience living abroad, internal migration experience, and religious affiliation. Political orientation was assessed on two 9-point self-placement scales: one for ideological orientation and one for economic orientation.

Climate and migration awareness were assessed via two single-item measures. Participants rated how closely they follow news about population migration and news about climate change in the media, on 5-point and 7-point Likert scales, respectively.

Emigration intention was measured with one item asking participants the extent to which they consider moving permanently from Kazakhstan to another country in the next 3-5 years

(0-10 scale). Climate-related emigration thoughts were measured using a 7-point Likert item capturing agreement with the statement: "I often think about leaving the country due to the negative effects of climate change."

Beliefs about climate policy efforts were assessed through participants' agreement with statements about the adequacy of actions taken by foreign governments and the government of Kazakhstan to combat climate change (7-point scale).

Support for climate migrants was evaluated using three items assessing support for accepting (a) international climate refugees by foreign governments, (b) international climate migrants by the Kazakhstani government, and (c) internal climate migrants by local executive authorities (akimats). All items used a 7-point agreement scale.

Willingness to assist climate migrants was assessed with three items evaluating respondents' self-reported willingness to volunteer: (a) abroad to help foreign climate-affected individuals, (b) within Kazakhstan to assist international migrants, and (c) within Kazakhstan to help internal migrants. Each was rated on a 7-point Likert scale.

Expert Interviews in Uzbekistan

As part of the empirical research program, expert interviews were conducted in Uzbekistan. These interviews involved meetings with leading scholars engaged in addressing both practical and scientific issues related to migration processes in Central Asia. Prior to participation, experts were informed about the objectives of the study and provided consent for audio recording of the interviews.

A total of nine experts were interviewed. The mean age of participants was 45 years. The gender distribution was five women and four men. With regard to academic qualifications, eight participants held a PhD degree, and one participant held a Master's degree. To protect anonymity, no personal identifiers or institutional affiliations were collected.

Statistical Analyses

Descriptive statistics (means, standard deviations, and frequencies) were calculated for all variables. Pearson's correlation coefficients were used to assess bivariate associations between awareness, attitudes, migration intentions, and willingness to assist.

Paired samples t-tests were conducted to compare differences in support for governmental climate efforts and willingness to assist different types of migrants. A series of multiple linear regression analyses were performed to identify predictors of (1) climate-related emigration thoughts, and (2) willingness to assist climate migrants (separately for internal, foreign-in-country, and abroad contexts). Independent variables included sociodemographic factors, media attention, policy support, and migration intentions.

Additionally, mediation analysis was conducted to test whether climate-related emigration thoughts mediated the relationship between news attention and intention to emigrate. Significance was evaluated at $p < 0.05$. All statistical analyses were conducted using Jamovi (version 2.6.17).

Results and Discussion

The final study sample included 401 participants (Table 1). The sample consisted of 63.1% female respondents. Most participants indicated Russian as their primary language (62.6%), while 37.4% selected Kazakh. The average age was 40.9 years ($SD = 12.7$), ranging from 22 to 63 years.

Table 1
Study population (N=401)

Variable	n	%
Gender		
Male	148	36.9
Female	253	63.1
Language		
Kazakh	150	37.4
Russian	251	62.6
Occupation		
Student	16	4.0
Employed	234	58.4
Self-employed	71	17.7
Unemployed	48	12.0
Pensioner	32	8.0
Educational level		
Middle-school	3	0.7
High-school	58	14.5
College	118	28.9
Undergraduate	219	54.6
Post-graduate	5	1.2
Marital status		
Single	101	25.2
Married	241	60.1
Divorced	48	12.0
Widow	11	2.7
Residence between age 5-18		
Rural	100	24.9
Town	115	28.7
City	186	46.4
Residence current		
Town	142	35.4
City	259	64.6
Living abroad experience		
No	337	84.0
Yes	64	16.0
Internal migration experience		
No	276	68.8
Yes	125	31.2
Religion affiliation		
Muslim	266	66.3
Orthodox Christian	94	23.4
Agnosticism	10	2.5
Atheism	29	7.2
Other	2	0.5

Regarding employment, the majority were employed (58.4%), followed by self-employed (17.7%), unemployed (12.0%), pensioners (8.0%), and students (4.0%). The educational background was predominantly at the undergraduate level (54.6%), followed by college (28.9%), high school (14.5%), post-graduate (1.2%), and middle school (0.7%).

Most participants were married (60.1%), while others were single (25.2%), divorced (12.0%), or widowed (2.7%). When asked about their residence during ages 5 to 18, 46.4% lived in cities, 28.7% in towns, and 24.9% in rural areas. At the time of the survey, 64.6% were living in cities, and 35.4% in towns.

Only 16.0% reported prior experience living abroad, while 31.2% indicated having internal migration experience within Kazakhstan. Regarding religion, the majority identified as Muslim (66.3%), followed by Orthodox Christian (23.4%), atheist (7.2%), agnostic (2.5%), and other religions (0.5%).

Based on a 9-point scale, participants reported a mean political orientation of 5.58 (SD = 1.91) for ideological views and 5.73 (SD = 2.18) for economic views. With regard to political attitudes, it should be noted that individuals with right-leaning ideological views who were familiarized with the report on 1.5°C warming were less concerned about worsening climate change (Ogunbode et al., 2020).

Awareness on Migration and Climate Issues

Participants reported a moderate level of attention to news related to migration, with a mean score of 3.08 (SD = 1.35) on a 5-point scale. Awareness of media coverage concerning climate change was slightly higher, with a mean score of 4.84 (SD = 1.75) on a 7-point scale. A weak but statistically significant positive correlation was observed between attention to migration news and climate change news ($r = 0.103$, $p = 0.038$), suggesting that individuals who pay more attention to migration-related information are also slightly more attentive to climate change issues in the media.

Intention to Emigrate and Climate-Related Migration Thoughts

The average intention to emigrate from Kazakhstan within the next 3-5 years was relatively low, with a mean score of 2.32 (SD = 3.18) on a 0-10 scale. Participants also reported moderate levels of climate-related emigration thoughts, with a mean score of 3.10 (SD = 1.92) on a 7-point scale.

A weak but statistically significant correlation was found between general emigration intention and attention to migration news ($r = 0.143$, $p = 0.004$), whereas the association with attention to climate news was not significant ($r = 0.071$, $p = 0.154$). In contrast, climate-related emigration thoughts were significantly correlated with both attention to migration news ($r = 0.106$, $p = 0.034$) and climate news ($r = 0.155$, $p = 0.002$).

Finally, there was a moderate and highly significant correlation between general emigration intention and climate-related migration thoughts ($r = 0.300$, $p < 0.001$), indicating that individuals who consider leaving Kazakhstan in the near future are more likely to cite climate change as a motivating factor. It is important to note that media coverage of climate change as a driver of human displacement may, on the one hand, strengthen support for climate policy; on the other hand, such reporting may also contribute to the rise of anti-immigrant sentiments in society (Bergquist et al., 2023).

Beliefs About Climate Policy Efforts

Participants expressed moderately positive beliefs regarding the effectiveness of climate change mitigation efforts. On a 7-point scale, the perceived efforts of foreign governments received a mean score of 4.27 (SD = 1.90), while Kazakhstan's government was rated slightly higher with a mean of 4.32 (SD = 1.91). However, a paired samples t-test showed no statistically significant difference between these two evaluations ($t = 0.55$, $p = 0.580$).

A strong positive correlation was observed between perceptions of foreign and national government efforts ($r = 0.596$, $p < 0.001$), indicating that individuals who viewed one as effective were likely to rate the other similarly.

Furthermore, belief in foreign government efforts was significantly correlated with both emigration intention ($r = 0.157$, $p = 0.002$) and climate-related migration thoughts ($r = 0.425$, $p < 0.001$). Perceived efforts by the Kazakhstani government were also significantly associated with climate-related migration thoughts ($r = 0.309$, $p < 0.001$), though their association with general emigration intention was not statistically significant ($r = 0.052$, $p = 0.300$).

Support for Climate Migrants by Government Authorities

Participants expressed relatively high levels of agreement with the need for governmental support for climate migrants. The mean score for support of foreign governments accepting climate refugees was 4.27 (SD = 1.82), whereas the mean score for support of Kazakhstan's national government doing the same was significantly higher at 5.07 (SD = 1.73). A paired samples t-test confirmed this difference as statistically significant ($t = 7.84$, $p < 0.001$), suggesting greater expectations placed on domestic authorities than on foreign ones.

Support for internal climate migrants – those relocating between regions within Kazakhstan – was also high, with a mean score of 5.07 (SD = 1.70). However, no significant difference was observed between support for the Kazakhstani national government and local executive authorities (akimats) in this regard ($t = 0.02$, $p = 0.982$), indicating a similar level of endorsement across governance levels for accommodating climate-induced internal displacement.

Correlation analyses revealed no significant associations between support for climate refugees (whether foreign or domestic) and either general emigration intentions (r range = 0.006-0.071, $p > 0.05$). However, climate-related emigration thoughts were weakly but significantly associated with support for Kazakhstan's national government accepting climate refugees ($r = 0.116$, $p = 0.020$), suggesting that personal concerns about climate-driven migration may influence expectations of governmental responsibility.

Predictors of Climate-Related Emigration Thoughts

A multiple linear regression analysis was conducted to identify predictors of climate-related emigration thoughts among the 401 participants. The overall model was statistically significant and explained 29.0% of the variance in the outcome variable, $R^2 = 0.290$, $F = 4.55$, $p < .001$.

Among the sociodemographic variables, religious affiliation emerged as the only significant predictor. Respondents who identified with religious groups other than Islam reported significantly higher levels of climate-related emigration thoughts compared to Muslims ($\beta = 1.471$, $t = 2.19$, $p = 0.029$). Other demographic factors such as gender, age, language, education, and marital status were not significantly associated with climate-related emigration thoughts in the model.

With regard to attitudinal and perceptual variables, the intention to emigrate from Kazakhstan within the next 3 to 5 years was a strong and significant positive predictor ($\beta = 0.246$, $t = 4.98$, $p < .001$). Additionally, belief in the effectiveness of foreign governments' efforts to combat climate change was significantly associated with stronger climate-related migration thoughts ($\beta = 0.361$, $t = 5.97$, $p < .001$).

In contrast, variables such as perceived climate efforts by the Kazakhstani government, support for international or internal climate migrants, political orientation (ideological and economic), and attention to climate or migration news did not emerge as significant predictors in the full model ($p > .05$).

These results suggest that individuals' willingness to consider migration due to climate change is influenced more by future migration plans and trust in international climate governance than by demographic characteristics or media exposure. When examining trust in sources of information on climate change, the findings of an international study revealed that demographic characteristics are significantly stronger predictors of belief in climate change misinformation than actual news consumption – whether online, offline, or through social media (Ejaz et al., 2024).

Mediation Analysis: The Role of Climate-Related Emigration Thoughts

A mediation analysis was conducted to examine whether climate-related emigration thoughts mediated the relationship between attention to migration and climate change news and the intention to emigrate (Table 2).

Table 2
Mediation of Climate-Related Emigration Thoughts Between News Attention and Emigration Intention

Type	Effect	Estimate	SE	p
Indirect	[Migration news attention] – [Climate-Related Emigration Thoughts] – [Intention to emigrate]	0.061	0.035	0.078
	[Climate change news attention] – [Climate-Related Emigration Thoughts] – [Intention to emigrate]	0.076	0.029	0.008
Component	[Migration news attention] – [Climate-Related Emigration Thoughts]	0.130	0.070	0.065
	[Climate-Related Emigration Thoughts] – [Intention to emigrate]	0.474	0.080	<0.001
	[Climate change news attention] – [Climate-Related Emigration Thoughts]	0.160	0.054	0.003
Direct	[Migration news attention] – [Intention to emigrate]	0.261	0.113	0.020
	[Climate change news attention] – [Intention to emigrate]	0.028	0.087	0.746

Total	[Migration news attention] – [Intention to emigrate]	0.323	0.117	0.006
	[Climate change news attention] – [Intention to emigrate]	0.104	0.090	0.249

The indirect effect of migration news attention on emigration intention through climate-related emigration thoughts was positive but not significant ($p = 0.078$). In contrast, the indirect effect of climate change news attention through climate-related emigration thoughts was statistically significant ($p = 0.008$), suggesting a partial mediation pathway.

Component paths confirmed these findings: climate change news attention was a significant predictor of climate-related emigration thoughts ($p = 0.003$), and climate-related emigration thoughts strongly predicted intention to emigrate ($p < 0.001$).

Direct effects showed that migration news attention significantly predicted intention to emigrate ($p = 0.020$), while climate news attention did not ($p = 0.746$). The total effect of migration news attention on emigration intention was significant ($p = 0.006$), while the total effect for climate news attention remained non-significant ($p = 0.249$).

These findings suggest that attention to climate change news affects emigration intention indirectly via increased climate-related migration concerns, while attention to migration news has both direct and indirect effects.

Willingness to Assist Climate Migrants

Participants expressed moderate willingness to engage in volunteer activities in support of climate-affected populations. The average willingness to volunteer abroad was 4.32 ($SD = 1.88$), while the willingness to help incoming climate migrants from other countries in Kazakhstan was similar and amounted to 4.35 ($SD = 1.85$). Notably, participants reported significantly greater willingness to assist internally displaced climate migrants from other regions of Kazakhstan, with a mean of 4.86 ($SD = 1.73$). Paired samples t-tests confirmed that this difference was statistically significant both when compared to volunteering abroad ($t = 5.78, p < 0.001$) and when compared to assisting foreign migrants in Kazakhstan ($t = 6.81, p < 0.001$). The findings may resonate with the conclusions of Stanley et al. (2023), which showed that internal migrants and refugees displaced by war receive greater support from local populations than international migrants, who are often perceived by the host society as a threat.

Correlational analyses revealed distinct patterns. Willingness to volunteer abroad was positively associated with climate news attention ($r = 0.211, p < 0.001$), migration news attention ($r = 0.148, p = 0.003$), foreign government climate efforts ($r = 0.210, p < 0.001$), and both general emigration intention ($r = 0.165, p < 0.001$) and climate-related emigration thoughts ($r = 0.106, p = 0.035$).

Willingness to assist foreign migrants within Kazakhstan was most strongly associated with climate news attention ($r = 0.273, p < 0.001$), migration news attention ($r = 0.156, p = 0.002$), Kazakhstani government climate efforts ($r = 0.133, p = 0.008$), and emigration intention ($r = 0.154, p = 0.002$).

Willingness to assist internal migrants was significantly associated with support for internal climate migration policies (akimats) ($r = 0.344, p < 0.001$), climate news attention ($r = 0.256,$

$p < 0.001$), and migration news attention ($r = 0.119, p = 0.017$). Associations with emigration intention and climate-related emigration thoughts were not significant ($p > 0.05$).

These results suggest that media exposure and institutional trust are key predictors of climate volunteerism, while the type of migrant (internal vs. external) influences the degree of public willingness to help.

Predictors of Willingness to Volunteer for Climate-Affected Populations

Three multiple linear regression models were estimated to identify predictors of willingness to volunteer for climate-affected individuals in different contexts: internally displaced persons within Kazakhstan, climate migrants who have arrived in Kazakhstan from abroad, and volunteering abroad to support international climate migrants. Each model included sociodemographic, perceptual, and attitudinal predictors.

Willingness to Volunteer for Internal Climate Migrants in Kazakhstan

This model revealed several significant predictors ($R^2 = 0.288, F = 4.36, p < 0.001$). Respondents who spoke Kazakh rather than Russian were more willing to volunteer to help internal migrants ($\beta = 0.427, p = 0.014$). Those who did not grow up in Kazakhstan (ages 5–18) showed significantly lower willingness to assist ($\beta = -0.658, p = 0.015$).

Both climate news attention ($\beta = 0.117, p = 0.019$) and migration news attention ($\beta = 0.104, p = 0.048$) were positively associated with willingness. Among institutional beliefs, support for internal migrants by local executive authorities (akimats) was the strongest predictor ($\beta = 0.268, p < 0.001$). At the same time support of climate migrants by foreign governments was negative predictor ($\beta = -0.217, p < 0.001$) of the willingness.

Willingness to Volunteer for International Climate Migrants Residing in Kazakhstan

In the model predicting willingness to assist climate migrants who have arrived in Kazakhstan from other countries ($R^2 = 0.304, F = 4.36, p < 0.001$), the most robust predictor was again support for internal climate migrants by akimats ($\beta = 0.275, p < 0.001$). Respondents with greater climate news attention ($\beta = 0.103, p = 0.036$) and migration news attention ($\beta = 0.135, p = 0.009$) were also more willing to volunteer.

A significant negative effect was observed for current city residence ($\beta = -0.347, p = 0.004$), suggesting that residents of towns were more inclined to volunteer. Neither age nor political orientation was significantly associated with volunteering.

Willingness to Volunteer Abroad for Climate Migrants

In the model predicting willingness to volunteer abroad, several significant sociodemographic and perceptual predictors emerged $R^2 = 0.199, F = 2.68, p < 0.001$. Those with higher education showed lower willingness ($\beta = -0.103, p = 0.043$), and married respondents were less willing compared to single individuals ($\beta = -0.320, p = 0.017$).

As in previous models, both climate news attention ($\beta = 0.134, p = 0.011$) and migration news attention ($\beta = 0.124, p = 0.026$) positively predicted willingness. Interestingly, belief that foreign governments support climate refugees was negatively associated with willingness to volunteer abroad ($\beta = -0.151, p = 0.006$), possibly indicating a diffusion of responsibility.

Expert Perspectives on Climate Migration

One of the key questions posed to the Uzbek experts was: “Does climate change influence migration processes globally and in the countries of Central Asia?” The decision to conduct

expert interviews in Uzbekistan, specifically focusing on climate change, was motivated by the recognition that Central Asian countries are landlocked and already face substantial water deficits. According to the experts, these environmental constraints may potentially increase socio-political tensions in the future.

The overwhelming majority of experts emphasized that climate change in Central Asia is likely to exacerbate water scarcity. Such shortages may negatively affect the development of agriculture in the region and, in turn, prompt segments of the local population to migrate – both internally within the country, regionally and globally.

Recommendations

Based on the analysis of the literature and the findings of this study, we propose the following recommendations aimed at reducing xenophobia and fostering tolerant and benevolent attitudes toward diverse groups of migrants in Kazakhstan:

1. Development of educational programs and courses that address gender, national, religious, and cultural characteristics, with the aim of raising awareness among different segments of the population.
2. Promotion of a positive image of migrants through media representations that highlight successful adaptation stories and lived challenges, thereby counteracting the dominant threat narrative.
3. Design and implementation of adaptation programs for various migrant groups, including orientation on legal frameworks, as well as cultural and language training, to facilitate their successful integration into host societies.
4. Support for joint cultural, scientific, educational, and other collaborative projects, which can serve as platforms for promoting social integration.
5. Improvement of legislative frameworks to ensure effective counteraction against all forms of discrimination and to strengthen legal guarantees of equality.

It is important to note that these recommendations should not be regarded as exhaustive. They may be expanded and supplemented as new challenges emerge and further empirical evidence becomes available.

Conclusion

This study highlights the growing role of climate change as a driver of migration, a phenomenon already evident in regions such as island states, Sub-Saharan Africa, and South and Southeast Asia. Climate-induced migration is accompanied by significant social, economic, and psychological challenges for migrants, while host societies often struggle to provide adequate support and may respond with negative attitudes toward newcomers. These findings are consistent with broader global evidence that climate change will continue to intensify migration flows unless effective mitigation and adaptation strategies are pursued.

Our results show that public perceptions of climate-related migration are closely linked to media coverage of both migration and climate issues. Individuals informed about these topics demonstrate greater confidence in international climate action, yet they express stronger support for state-led assistance to climate migrants within Kazakhstan compared

to international measures. Moreover, respondents indicated a greater willingness to support internal migrants displaced by climate change than to extend similar support to foreign migrants. These patterns underscore the need for targeted policies that address both the vulnerabilities of climate migrants and the concerns of host populations, ensuring that integration strategies are responsive to national contexts while remaining connected to global challenges.

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Қазақстан қоғамының әлеуметтік ұстанымдары және олардың климаттық өзгерістерден зардан шеккен мигранттарға ерікті көмек көрсетуге психологиялық даярлыққа ықпалы

Андатпа. Өзектілігі: Климаттық өзгерістер әлемдік көші-қонның негізгі қозғауышы күшіне айналуда. Қазақстанда жүргізілген бұл зерттеу қоғамының әлеуметтік ұстанымдарын және климаттық өзгерістерден зардан шеккен мигранттарға ерікті көмек көрсетуге дайындығына әсерін талдады. БАҚ-тың ықпалы, климаттық саясатқа сенім және тұлғалық факторлардың рөлін зерттедік.

Зерттеу әдістері: 2023 жылы Қазақстанның бес қаласында (Ақтөбе, Алматы, Түркістан, Орал, Шымкент) ересектер арасында (N=401) сауалнама жүргізілді. 2025 жылы Өзбекстанда сараптамалық сұхбат алынды. Статистикалық талдау корреляцияларды, жұптық t-тесттерді, көптік регрессияларды және медиациялық модельдерді қамтыды.

Нәтижелер: Климаттық өзгерістерге байланысты эмиграция туралы ой көші-қон жаңалықтарына назар аудару және шетелдік үкіметтердің шараларына сеніммен байланысты болды. Регрессиялық модельдер ішкі мигранттарды қолдау мен БАҚ-қа назар аудару волонтер болуға дайындықты болжайтынын көрсетті. Тіл және білім сияқты әлеуметтік факторлар да әсер етті. Респонденттер ішкі мигранттарға көбірек көмек көрсетуге дайын екенін айтты.

Қорытынды: Қазақстанның қоғамының климатқа байланысты көші-қонға аландаушылығы жергілікті саясаттан гөрі халықаралық әрекеттер мен көші-қонды жоспарлаумен анықталады. Волонтерлік белсенділік институционалдық сенім мен жеке хабардарлыққа тәуелді. БАҚ пен саяси күтулер әлеуметтік ұстанымдарға ықпал етіп, түрлі мигрант топтарына көмектесуге дайындық арқылы көрінеді.

Тұйін сөздер: әлеуметтік ұстанымдар, қазақстанның қоғам, климаттық өзгерістер, еріктілер қызметі, халықтың көші-қоны

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Социальные установки казахстанского общества и их влияние на психологическую готовность к волонтёрской помощи мигрантам, пострадавшим от климатических изменений

Аннотация. Актуальность: Климатические изменения становятся ключевым фактором миграции во всём мире. Проведённое в Казахстане исследование изучает социальные установки и их влияние на готовность к волонтёрской помощи мигрантам, пострадавшим от изменения климата. Анализировалось влияние СМИ, доверия к климатической политике и личностных факторов.

Методы исследования: В 2023 году проведён опрос среди взрослого населения (N=401) в пяти городах Казахстана (Актобе, Алматы, Туркестан, Уральск, Шымкент). В 2025 году проведено экспертное интервью в Узбекистане. Использовались корреляции, парные t-тесты, множественная регрессия и медиационный анализ.

Результаты: Намерения эмигрировать в условиях климатических изменений были связаны с вниманием к миграционным новостям и доверием к мерам зарубежных правительств. Регрессионные модели показали, что поддержка внутренних мигрантов и внимание СМИ существенно предсказывают готовность к волонтёрству, как и язык, образование. Респонденты чаще выражали готовность помогать внутренним мигрантам, чем иммигрантам или зарубежным жителям.

Заключение: Опасения казахстанского общества относительно климатической миграции больше связаны с доверием к международным мерам и планированием миграции, чем с восприятием национальной политики. Волонтёрская активность зависит от институционального доверия и личной осведомлённости. СМИ и политические ожидания формируют социальные установки, выражющиеся в готовности помогать разным группам мигрантов.

Ключевые слова: социальные установки, казахстанское общество, изменение климата, волонтёрская деятельность, миграция населения.

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