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FOOD SECURITY AND CLIMATE CHANGE IN KAZAKHSTAN: COMPARING MEDIA, POLICY AND ACADEMIC RESEARCH LITERATURE REVIEW

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Abstract

Food security remains a vital issue on Kazakh policy and scholarly agenda. As earlier research (e.g. [13]) suggests, there is a lack of systematic research attention to food security and sustainable agriculture issues through the prism of climate change across the Central Asian region.

This paper seeks to fill this gap by suggesting the need to reorient the scholarly attention to food security by focusing on a comparative analysis of media and research literature review. The findings of this paper should offer a better insight into specific policy recommendations as related to food security in Kazakhstan.

Introduction

Food security has become a prominent issue both on global and local policy agendas. This topic is relevant due to the modern era of the world economy shaped by the digital revolution. While Kazakhstan appears to remain relatively better off compared to other developing nations [1], the issue has increasingly gained the attention of international organizations, local political leaders, policy experts, and scholars.

Yet, one specifically growing concern is extreme fluctuations of global temperature due to climate change (e.g. as in [2]). The summer of 2022 witnessed large-scale droughts across EU nations and China. Thus, it is rather surprising to observe a lack of systematic scholarly attention to food security issues through the prism of climate change in Kazakhstan. Specifically, a quick Google Scholar search for relevant literature suggests there have only been a few research articles published (e.g. [3], [4], [5], [6]), mostly over the past two years or so. Thus, to in an attempt to provide a better analysis of food security in Kazakhstan, an analysis of academic research should be supplemented with an overview of media publications related to the topic. What follows below is a brief analysis of media publications, followed by an analysis of policy and academic research on food security in Kazakhstan.

An analysis of selected media publications

This preliminary analysis encompasses five major media articles as selected by using Google search.

To begin with, as Kazakhstan continues to develop its bilateral relations with the African Union, a major issue on the political agenda appears to be food security as

analyzed within a broader scope of sustainable development, climate change and green economy [14]. “In particular, the role of Kazakhstan in the Islamic Organization for Food Security (IOFS) was noted, as well as the implementation of the African Initiative on Food Security (AIFS) and the Year of Africa in IOFS within its framework this year.” [14]

Second, it is worth noting Kazakhstan’s recent improvement of its ranking position in the Global Food Security Index (ranked 32nd among 113 nations as of 2022) largely due to the systematic efforts by the government aimed to provide ‘its citizens with affordable and high-quality foods’, while the country remains self-sufficient in a range of food products [15].

Third, another media source [16] looks into food security issues in Kazakhstan in light of the ongoing Ukrainian crisis. In particular, it notes that while the conflict has not yet brought direct repercussions, Kazakh citizens have begun feeling an indirect economic burden as food prices have increased due to restricted access to affordable food supplies from Belarus and Russia and the devalued Tenge. Although the government responded to the price increase by developing a Food Security Plan for 2022-2024, its effect is likely yet to be observed and thoroughly analyzed.

Somewhat contrary to [16], another media article suggests that the Ukrainian conflict presents opportunities for agricultural export market diversification [17]. Specifically, the conflict enabled Kazakhstan to intensify wheat exports to EU states (Forbes 2022 as cited in [17]), while reorienting its sunflower seeds exports to Turkey [17].

Finally, the role of Kazakhstan in contributing to the food security in Afghanistan is noted especially in terms of flour and grain [18]. Furthermore, promising areas for further development include the need to boost bio-food and agricultural technologies, develop the Halal food production ecosystem and open plant gene banks.

The summary of media publication analyses is outlined in Table 1 below.

Table 1. The summary of selected media publications
Source: The author’s own analysis

№	Major description	Source
1	Food security is viewed as part of sustainable development, climate change and green economy. Kazakhstan’s contribution to food security in the African Union is noted.	[14]
2	Kazakhstan is well ranked in the Global Food Security Index due to the systematic efforts by the government, while the country remains self-sufficient in a range of food products.	[15]
3	Food security is viewed through the prism of Ukrainian crisis, which seems to have caused an indirect economic burden to local citizens as food prices have increased.	[16]
4	The Ukrainian conflict offers opportunities for agricultural export market diversification (Turkey, EU states).	[17]
5	The role of Kazakhstan in contributing to the food security in Afghanistan is noted.	[18]

An analysis of policy and academic research

This overview analyzes food security policy and academic research in Kazakhstan.

First, the policy and legal framework includes the Law "On the National Security of the Republic of Kazakhstan" dated January 6, 2012 [7], which stresses the need for food security to ensure national security at the legislative level. Second, In the Address of the President of Kazakhstan Nazarbayev N.A. to the people of Kazakhstan titled "Strategy "Kazakhstan-2050": The new political course of the established state" dated 14 December 2012, the threat to global food security was identified as one of the ten global challenges of the 21st century for Kazakhstan [8]. As the strategy "Kazakhstan- 2050" points out, this challenge holds enormous opportunities. Third, as part of the State program for the development of the agriculture industry in the Republic of Kazakhstan for 2017 – 2021, one of the most important tasks is to ensure national food security [9]. Agriculture is a vital sector of the economy, which sustains food security and ensures the national security of the country (ibid). Finally, the National project for the development of the agriculture industry of the Republic of Kazakhstan for 2021- 2025 seeks to boost labor productivity, provide 500,000 jobs (including 100,000 full- time and 400,000 seasonal jobs), attract KZT 4.5 trillion investments, double the exports of processed agricultural products bringing its share to 70%, engage 350,000 farmers and households in ecosystems, and to create 70,000 family farms [8].

Furthermore, specific scholarly works help better explain food security dynamics in Kazakhstan. First, it is noted that the first 15 years of post-Soviet development in Central Asia was seen as a period with “socio-economic shocks that increased food insecurity” ([10], which spurred the adoption of reforms. Another work [11] stresses the need to push food policy reforms away from raw material- based toward high- value agriculture areas and focus on agricultural diversification through cluster development. Furthermore, the authors [11] note the need to develop Kazakhstan’s own food production base. Finally, [12], while noting overall recent improvement in Kazakhstan’s food security, emphasize a number of remaining issues, such as individual decisions to buy land plots to grow their own food or “stocking up on food” (p. 194). These factors are due to rising food prices and declined purchasing power. The authors conclude that improving food security should require more innovations in food production, food availability to the disadvantaged and vulnerable groups.

Specifically, regarding the existing academic research on food security and climate change in Kazakhstan, first, it is explicitly suggested that ongoing research on the impact of climate change on food production in Kazakhstan largely remains limited [3, 13]. Next, both [4] and [6] point to the importance of taking action aimed at reducing drought risks as caused due to climate change. Finally, the need is emphasized to analyze “the effect of climate change on cereal trade in Central Asia” ([5], Abstract).

The summary of major academic publications related to food security and climate change in Kazakhstan is outlined in Table 2 below.

№	Major description	Source
1	Research on the impact of climate change on food production in Kazakhstan remains limited.	[3, 13]
2	Action is needed to reduce drought risks.	[4, 6]
3	The need is emphasized to analyze “the effect of climate change on cereal trade in Central Asia” ([5], Abstract).	[5]
4	The initial food insecurity throughout the 1990s spurred the adoption of reforms in Kazakhstan.	[10]
5	The need to push food policy reforms away from raw materials to high-value agriculture areas is emphasized.	[11]
6	Remaining issues include individual decisions to buy land plots to grow their own food due to rising food prices.	[12]

Table 2. The summary of academic publications
Source: The author’s own analysis

As the above analysis suggests, food security generally remains on political and policy agendas in Kazakhstan. Furthermore, the existing research [12] notes recent improvements in Kazakhstan’s food security, while attention should be given to minimizing the drought risks caused by climate change [4], [6] and exploring the links between climate change and food security in Kazakhstan [3].

Conclusion

Overall, food security remains high on policy agenda, while Kazakhstan continues to show improvements in this area, both vis-à-vis other developing nations and as compared to earlier periods of post-Soviet development in Kazakhstan [10]. Specifically, as the legal framework and policy analysis suggests, food security remains one of the most vital issues on the governance agenda [8]. Furthermore, COVID-19, the unfolding Ukrainian crisis, drought across EU states and China, as well as other global and regional factors are likely to put more pressure on food security trends.

Thus, scholars call for food policy reforms (e.g. [10], [11]). Specifically, [11] advocates for food policy reforms toward high-value agriculture and cluster-driven diversification, while Kazakhstan needs to develop its own food production base. Similarly, media sources suggest the need to diversify food export markets [17], noting Kazakhstan’s donor role in supporting the food security of developing nations [14, 17, 18].

Future research should focus on ways to boost innovative agriculture techniques [12, 18], as well as bio-food technologies, Halal food production and exploring the possibilities of opening plant gene banks [18]. Another area is evaluating the efficiency of the Food Security Plan for 2022-2024 in terms of its impact on food security [16]. As a final note, the impact of the ongoing Ukrainian conflict on food security in Kazakhstan and Central Asia is yet to be analyzed in a more comprehensive manner.

As a final note, food security remains an interesting area to investigate from scholarly perspectives.

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