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# Policy Forum 10-058: Climate Change and Regime Longevity in the DPRK



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## Policy Forum, December 7, 2010

Ben Habib

This article was adapted by the author for this forum. The original article, "Climate Change and Regime Perpetuation in North Korea", was printed in *Asian Survey*, Vol. 50, Number 2, pp. 378–401 and is available at: <http://caliber.ucpress.net/doi/pdf/10.1525/as.2010.50.2.378>.

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### CONTENTS

[I. Introduction](#)

[II. Article by Ben Habib](#)

[III. Nautilus invites your responses](#)



North Koreans Survey Damage Caused by Flooding, August 2007 (picture courtesy of World Food Programme) Source: BBC News

## I. Introduction

Ben Habib, a Lecturer in Politics and International Relations in the School of Social Sciences at La Trobe University, writes, “In the short to medium term, climate-driven food insecurity is likely to pull Pyongyang into increasing reliance on its nuclear weapons program as leverage to bargain for international largesse in the form of food, energy and fertiliser supplies. The increased importance of the nuclear bargaining chip in the context of climate change, in conjunction with the numerous other justifications for its nuclear proliferation (domestic politics, security, ideology), makes it even more unlikely that the regime will relinquish its nuclear weapons capability.”

The views expressed in this article are those of the author and do not necessarily reflect the official policy or position of the Nautilus Institute. Readers should note that Nautilus seeks a diversity of views and opinions on contentious topics in order to identify common ground.

## II. Article by Ben Habib

### -“Climate Change and Regime Longevity in the DPRK”

By Ben Habib

The longevity of the regime has been a topic of conjecture since Kim Jong-il’s rise to power in 1994. Many analysts presumed that the primary driver of the regime’s collapse would be its economic weakness. However, such predictions proved premature; North Korea weathered the great famine of the late-1990s and Kim Jong-il remains in power.

The regime has defied expectations of its demise to continue functioning in spite of adverse circumstances. In the absence of some kind of hard external pressure—such as crippling economic sanctions, foreign military intervention, or a series of natural disasters—the Kim regime should retain power for some time to come. Climate change, however, is an exogenous variable that may render that assumption mistaken.

There is a need to take account of climate change as an important new variable interacting with the existing weaknesses of the country's institutions and political economy. Sustained climate hazards may profoundly influence North Korea's agricultural system and food distribution mechanisms in particular, accelerating the disaggregation of the command economy and deterioration of the regime's totalitarian ideology and social controls based around the Songun system.

## **Climate Change Impacts on North Korea**

Climate hazards will cause the greatest harm in combination with existing problems such as overpopulation, demographic imbalance, poor governance, endemic poverty, and lack of infrastructure. Climate change hazards are likely to act as stress multipliers, damaging systems that are already weak.

Today, the North's agricultural system continues to function under duress, beset by many of the same root causes that contributed to the famine. This food crisis is linked directly to resource constraints, due to limitations on its land base and energy supply. The North has an extremely limited stock of arable land and a harsh climate, unfavourable to high agricultural output. The country also lacks indigenous petroleum reserves and is reliant on imports to service its transportation fleet, industrial facilities and mechanised agricultural system.

To get a taste of the vulnerability of this system, let us consider a selection of the climate change hazards that North Korea is likely to face. Rising average temperatures are predicted to depress crop yields. The direct impact on the temperature tolerance of crops is compounded by changes to precipitation patterns, length of the growing season, the intensity and timing of extreme weather events, and increased exposure to plant pests, weeds, and diseases.

Extreme weather events are increasing in frequency and intensity on the Korean peninsula as climate change alters the influence of the East Asian monsoon. North Korea is susceptible to torrential rain and flooding, typhoons, drought, and acute cold weather, with agricultural systems that are particularly at risk to extreme weather events during certain stages of the crop cycle. Indeed, it is the likely volatility of the climate system that a poorly adaptive country like North Korea has the most to fear.

## **Political Consequences**

For North Koreans, the direct result will be declining food security. Large segments of the North

Korean population are already at risk because the regime continues to pursue agricultural self-sufficiency and because certain social strata enjoy privileged access to existing food supplies at the expense of more-vulnerable segments of the society. Those people experiencing food insecurity thus must develop coping mechanisms to secure subsistence, or face malnutrition and death.

The actions of individuals and social groups within a vulnerable system can play a large part in fortifying the system's adaptive capacity. In North Korea, informal coping mechanisms have played an important role in sustaining vulnerable people through the famine period and through food shortages up to the present day. North Korea's rigid political system, on the other hand, is not

equipped for a climate crisis. It does not have to deal with food insecurity, along with stress from energy shortages and a weak economy.

The regime was able to muddle through and survive by consciously decreasing the complexity of its totalitarian system via social triage. However, the consequences of climate stress could disrupt the political economy of the state to a degree that further, uncontrollable deterioration of state institutions cannot be avoided. Faced with systemic decay that social triage is unable to stem, adverse climate change impacts may at worst precipitate state failure or less dramatically, force the regime onto the path of systemic reform.

North Korea does not have the adaptive capacity to buffer against climate-driven food insecurity while it is simultaneously weakened by energy shortages, economic decrepitude, limited horizontal access to information, and limitations of its geography. These trends are mutually reinforcing and likely to function as positive feedback loops. It would therefore be prudent to assume that increased exposure to climate change hazards is likely to accelerate underlying trends of state decay.

## **Policy Implications**

In the short to medium term, climate-driven food insecurity is likely to pull Pyongyang into increasing reliance on its nuclear weapons program as leverage to bargain for international largesse in the form of food, energy and fertiliser supplies. The increased importance of the nuclear bargaining chip in the context of climate change, in conjunction with the numerous other justifications for its nuclear proliferation (domestic politics, security, ideology), makes it even more unlikely that the regime will relinquish its nuclear weapons capability.

The situation may change however in the medium to long term. If North Korea continues to pursue a policy of agricultural self-sufficiency buttressed by inputs of international food aid, climate-driven food insecurity is likely to place increasing strain on the international donors who make up North Korea's food shortfall. The North's access to international food donations may be squeezed by the competing demands of other at-risk countries, in the context of a downward trend in global food production.

Because climate change is a stress multiplier, it may reconfigure the regime longevity equation and lead to the types of eventualities predicted by collapse theorists in the 1990s. Regional states should therefore integrate climate change as a key variable into their contingency planning for rapid political change in North Korea. The climate change variable may yet prove to be a wildcard as the regime enters a tense period of leadership transition.

North Korea lies at the fulcrum of Northeast Asia's tense strategic environment. The interaction of climate change with the existing weaknesses of the DPRK state is a field of inquiry ripe for further study, precisely because its internal fragility is consequential to the political stability of the region as a whole.

III. Nautilus invites your responses

The Northeast Asia Peace and Security Network invites your responses to this essay. Please send responses to: [bscott@nautilus.org](mailto:bscott@nautilus.org). Responses will be considered for redistribution to the network only if they include the author's name, affiliation, and explicit consent.

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