

# Tackling the Challenges of Climate Change Adaptation in Central America: Can Korea Contribute?<sup>1</sup>

Seungho Lee Associate Research Fellow, Americas Team, Center for Area Studies (seungholee@kiep.go.kr)

## I. Introduction

While Central American countries record relatively low greenhouse gas emissions, they are among the ones who have suffered the most from the direct influence of climate change. In these countries, climatic factors including temperature and precipitation patterns have been changing in a dramatic manner, and extreme weather events have been frequent. Such climate extremes, manifested in diverse forms, not only cause massive casualties, but also adversely affect a wide range of sectors, including agriculture, water resources, infrastructure, housing and health, dramatically hindering the sustainable development of these countries.

As so many lives and livelihoods of Central Americans are being adversely affected by ever-intensifying climate change, adaptation to climate change has become a national and re-

gional priority in Central America. In this context, contributing to tackling the adaptation challenges across the region deserves much more attention in Korea's development cooperation strategy in Central America.

Over the past years, Korea has repeatedly expressed its willingness to position itself as a global leader on climate agenda. Korea's quest to establish climate leadership has prompted its development cooperation authorities to pledge increasing the share of climate-related ODA in total ODA above that of the OECD DAC average by 2025.

Against this backdrop, expanding partnership with Central American countries in climate change adaptation-oriented activities seems a natural choice for Korea. This brief summa-

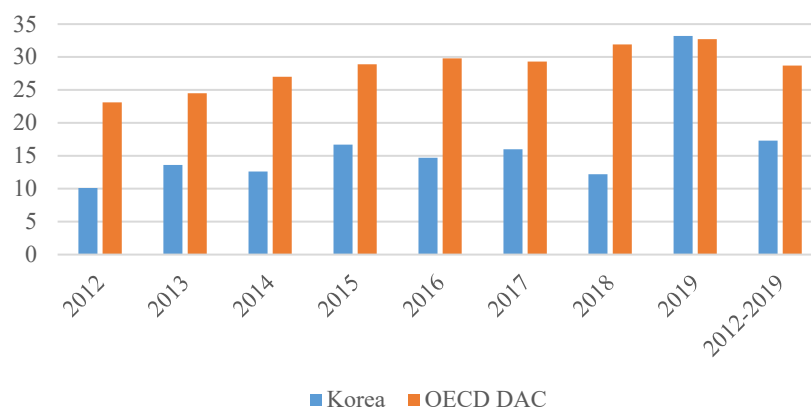
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<sup>1</sup> This is a brief summarization of: Lee, S., S. Hong, J. Kim, M. Park, H. Kwon. 2021. "Challenges of Climate Change Adaptation in Central America and Policy Implications for Korea-Central America Cooperation" (in Korean), Studies in Global and Regional Strategies 21-07, Korea Institute for International Economic Policy.

rizes a number of findings and policy suggestions from Lee et al. (2021), which identifies promising cooperation areas in the field of cli-

mate change adaptation between Korea and four Central American countries and proposes cooperation schemes in each area.

Figure 1. Share of Climate ODA in Total ODA



Source: Author's calculations based on OECD Creditor Reporting System

## II. Vulnerabilities to Climate Change in Central America

Guatemala, El Salvador, Honduras and Nicaragua—all located in Central America—have witnessed significant changes in their climate factors over decades. From 1931 to 2020, the average annual temperature rose by up to 1.6°C and average annual maximum temperatures rose by up to 1.7°C in these countries. Dramatic changes in precipitation patterns were also observed. While there was an overall decrease in the average annual precipitation from 1931 to 2019, annual precipitation showed a high degree of fluctuation. During rainy seasons, the number of rainy days decreased and the intensity of heavy rain increased.

Due to the changes in climatic factors, climate-related disasters such as floods, storms, drough-

ts, landslides and abnormal temperatures have become more frequent in the four Central American countries. Data show that the number of climate extremes over the 1991–2020 period was substantially larger than that of the 1961–1990 period. These climate extremes occur in different places—dry corridor areas, rural areas, mountainous areas, coastal areas and urban areas—and in different forms.

Quite naturally, losses and damages from weather-related events became much larger in recent periods. More than 37,000 casualties occurred and the number of victims reached 27 million due to climate disasters in the four Central American countries between 1991 and 2020. Economic losses from climate disasters reached 2.1% of GDP in Nicaragua from 1996 to 2000 and 4.8% of GDP in Honduras from

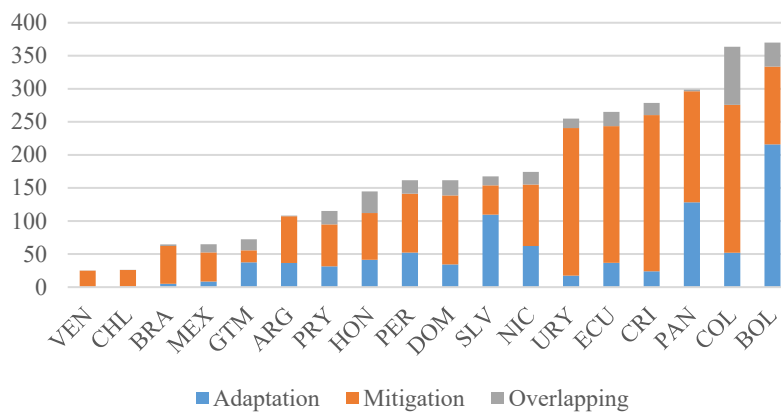
2016 to 2020. Moreover, around 2.19 million people were internally displaced due to climate disasters over the 2008–2020 period.

The problem is that things are only likely to get worse. Data show that the trend of increasing average annual temperature, decreasing annual precipitation, and increasing intensity of heavy rain during rainy seasons will continue in the four Central American countries. Moreover, socioeconomic conditions have been deteriorating rapidly in these countries since the COVID-19 outbreak, further tarnishing prospects for climate change adaptation. Are they prepared to tackle their adaptation challenges and thereby reduce their vulnerabilities to climate change? What policy efforts have they made so far?

Lee et al. (2021) identifies how the four Cen-

tral American countries have responded to ever-intensifying climate challenges in policy realms, both at the regional and country level. The first joint response to climate change at the regional level was the creation of the Convenio Regional sobre Cambios Climáticos (CRCC) in 1993. In 2011, the Estrategia Regional de Cambios Climáticos (ERCC) was approved at the 37th SICA Summit, providing regional policy frameworks for responding to climate change challenges. It was soon followed by an action plan to support the strategy and regional policy efforts. In addition to such regional-level efforts, individual countries have also announced several policy guides on how adaptation activities should be implemented at the national level. All the four Central American countries have national action plans to respond to adaptation challenges.<sup>2</sup>

Figure 2. Per Capita Climate Finance from the International Community



Note: Time period is from 2010 to 2019

Source: Author’s calculations based on OECD Creditor Reporting System and World Development Indicators

<sup>2</sup> Guatemala’s Plan de Acción Nacional de Cambio Climático (2018); El Salvador’s Plan Nacional de Cambio Climático (2017) and Plan Nacional de Adaptación al Cambio Climático (2019); Honduras’ Plan Nacional de

Adaptación al Cambio Climático (2018); Nicaragua’s Política Nacional de Mitigación y Adaptación al Cambio Climático (2019)

Despite all these policy efforts, what is frustrating is that Central American countries often lack the financial resources to tackle adaptation challenges as written in their policy documents. This means that they have little choice but to rely on international financial resources in doing so.

But have they been receiving enough from the international community? After taking into account the population size, it appears that the four Central American countries have not been securing enough financial resources from international donors to cope with climate change. Between 2010 and 2019, the amount of per capita climate change finance recorded \$174 in Nicaragua, \$167 in El Salvador, \$145 in Honduras, and \$72 in Guatemala. Over the same period, it exceeded \$350 in Bolivia and Colombia, and \$250 in Panama, Costa Rica, Ecuador and Uruguay. The amount of per capita climate change finance oriented towards adaptation-targeted projects from 2010 to 2019 was \$110 in El Salvador, \$62 in Nicaragua, \$41 in Honduras, and \$37 in Guatemala.

### III. Key Adaptation Challenges in Central America and Potential Areas of Cooperation

All in all, the urgency of cooperation in climate change adaptation in Central American countries is clear. Against this backdrop, Korea should consider expanding financial resources oriented towards climate change adaptation in Central American countries and carrying out

adaptation-related projects in a more active manner through various cooperation mechanisms.

How then can Korea contribute to tackling the key challenges that Central American countries face with regards to climate change adaptation? The development cooperation playbook suggests that it should provide assistance where it is mostly needed. Lee et al. (2021) conducts a review of the adaptation-related contents of the ERCC and each country's policy documents that provide guidance on nationwide adaptation activities. The study suggests that, while the priority areas for adaptation differ across countries, among the top priority areas commonly identified by the four Central American countries are agriculture, water resource management and disaster response and management.

Fortunately enough, Korea has accumulated know-how in adaptation-related cooperation activities in the abovementioned priority areas. Korea has sufficient experience in agriculture and water resource management, having disbursed large amounts of adaptation-oriented development funds to those areas and carried out related projects. While Korea has not allocated much of its adaptation-oriented development funds to disaster response and management so far, the experience gained from the related projects conducted in Asia and Latin America can be applied to potential cooperation projects in Central America.

It is also worth emphasizing that Korea is well-positioned to capitalize on partnership with the

United States when carrying out adaptation-oriented cooperation projects in Central America. In the 2021 Korea-United States Summit, Korea pledged to increase its financial commitment to development cooperation for Guatemala, El Salvador and Nicaragua to \$220 million for the 2021–2024 period. Korea’s move is in support of a key U.S. foreign policy objective in Central America—mitigating illegal migration from the region to the United States.

The United States considers illegal immigration from Central American countries a direct threat to security. The Biden administration seems to have designed its foreign policy with the idea that migration to borders is a symptom of much larger issues in the region, which acts as a ground for its focus on addressing the driving forces of migration. Even before inauguration, the willingness of President Joe Biden to approach the migration agenda in a different way from the Trump administration was clear. Indeed, in 2021, then-presidential candidate Biden announced that he would renew U.S. commitments to Central America and pursue over his term a comprehensive \$4 billion regional strategy to address the root causes of migration from Central American countries.

Upon assuming office, President Biden signed an executive order calling for the development of a Root Causes Strategy, which would serve as a policy mechanism to tackle the root causes of migration in the Northern Triangle countries. The strategy, consisting of five core pillars, emphasizes that the United States cannot implement it alone. It calls for partnerships with other

governments in doing so, including Korea, Mexico and Japan. This implies that contributing to tackling the challenges of climate change adaptation in Central America is not only an international development quest, but also a strategic instrument that can help fortify the Korea-United States alliance.

Another obvious partner country Korea may consider in conducting adaptation projects in Central America would be Costa Rica, one of the leading countries in environmental policy. In a triangular cooperation model, Korea may act as a donor country and Costa Rica as a pivotal country, where Korea provides development funds and Costa Rica offers area-specific knowledge on various development cooperation projects related to climate change adaptation.

#### IV. Concluding Remarks

The 16<sup>th</sup> Session of the Conference of the Parties (COP16) held in 2010 celebrated the establishment of the Cancun Adaptation Framework. The birth of this new framework meant that adaptation activities aimed at reducing climate change vulnerabilities and increasing resilience to climate change had emerged as a new pillar of global climate change response goals.

The importance of climate change adaptation was reaffirmed in the Paris Agreement, which would act as a basis of the new climate framework involving all countries since 2020. The agreement set adaptation as one of its principal goals, along with curbing temperature rises. It

strongly urges international support for efforts aimed at adapting to climate change and reducing the risk of loss and damage in climate-vulnerable developing countries.

Climate change adaptation has long been established as a regional and national priority in Central American countries. Korea, as a responsible middle power in global governance, should not hesitate to play a more active role in tackling their adaptation challenges.

As mentioned earlier, this is consistent with its quest to increase the share of climate-related ODA in total ODA above that of the OECD DAC average by 2025. Moreover, compared to other cooperation agendas, such as anti-corruption, governance or rule of law that Central American governments may want to avoid, the adaptation agenda is politically neutral. The adaptation agenda is also largely insulated from the ongoing competition between the United States and China within and without the region. Therefore, development cooperation in adapting to climate change not only meets the developmental demands of the four Central American countries, but is also a diplomatically practical approach that can elevate the level of Korea-Central America cooperation. This is the time for Korea to step up and embrace a more engaging role in Central America. **KIEP**