

Report of the NEAT Working Group Meeting on Climate Change and East Asian Sustainable Development

Organized Online by NEAT China

18 June 2021

I Overview

1. Climate change presents the single biggest threat to development, and its widespread, unprecedented impacts disproportionately burden the poorest and most vulnerable. Urgent action to combat climate change and minimize its disruptions is integral to the successful implementation of the Sustainable Development Goals. The Paris Agreement, adopted in 2015, aims to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels.
2. Strengthening the ability of countries to deal with the impacts of climate risks, through appropriate international cooperation, new technology innovations and an enhanced capacity building framework, is more important than ever. This is even more urgent for East Asia since climate change is affecting every country in this region to a greater level. It is disrupting national economies and affecting lives.
3. Changing weather patterns, rising sea levels, and more extreme and frequent weather events have posed huge threats to sustainable development in East Asia, especially in the aspects of maintaining food security (SDG 2) and natural disasters management (SDG 9&11), which are two key components of achieving the 2030 Sustainable Development Goals.
4. The trend of climate change, coupled with increase in extreme weather disasters, may negatively affect East Asia's food security and natural disaster management. Recognizing the importance to strengthen collective response and regional cooperation in this regard, the on-line NEAT Working Group Meeting on Climate Change and East Asian Sustainable Development was held on 18 June 2021 to provide a platform for NEAT members to share knowledge and experience on climate change and sustainable development, to conduct joint research on the status quo and future development in the areas related to climate, food security and disaster management particularly, and most importantly, to pool wisdom to promote East Asian cooperation on climate-induced food security and natural disaster management under this context.
5. The list of NEAT participants is at [Annex](#).

II Countries Perspectives

6. **Brunei** has dealt with climate change regionally and in international politics with aspects of reducing carbon emissions, clean energy, disaster and environmental management and its commitments to its Nationally Determined Contributions (NDC) under the Paris Agreement. The commitment combines energy sector, land transport sector, forest sector to achieve a reduction in greenhouse gas emissions by 20% relative to Business-As-Usual levels by 2030. As for the synergies between Climate Governance and SDGs, Brunei will be firmly committed to have more effective management & coordination, greater knowledge expertise, adequate public outreach and more education and training for relevant stakeholders. There remains much to be done for Brunei to maintain food security and realize disaster management under climate emergency, which includes preparation for worst-case scenarios, fast decision making process, relevant organization to handle climate emergency situation, better IT network infrastructure and more involvement with regional cooperation on food security and natural disaster management.

7. **China** has officially announced that it aimed to reach a carbon peak by 2030 and be carbon neutral by 2060. This is a major strategic decision made by China based on its responsibility to build a community with a shared future and its inherent requirement to achieve sustainable development. China has incorporated carbon and carbon neutrality into its overall plan for ecological progress. China is firmly committed to multilateralism, working for the establishment of a global environmental governance system featuring fairness, rationality and win-win cooperation, and actively responding to food security and natural disasters caused by climate change. China has also made green cooperation a key part of the Belt and Road Initiative. China has launched a series of green action initiatives, including green infrastructure, green energy, green transportation and green finance, in order to work with APT countries to address the risks of climate change.

8. **Cambodia** is highly vulnerable to the effects of climate change such as floods, droughts, windstorms and so on, which have posed great threats to its agriculture, infrastructures, forestry and human health. According to the assessment, Cambodia's temperature would increase up to 1.35-2.5 degrees Celsius in 2100 and annual rainfall would increase between 3 and 35% from current condition. Rice is the main food crop in Cambodia and the losses in production of rice have been mainly due to floods and droughts during the past 20 years. A study shows that under future climate conditions, most of Cambodia's agricultural areas will be exposed to higher risks of droughts and rice yields is expected to fall by up to 70% of current levels until 2080. In order to deal with those impacts, Cambodia has taken some adaptation actions for agriculture in terms of production increase, quality-safety improvement, support services and capacity building enhancement, scientific research and technologies innovation and so on.

9. Indonesia is among top 5 greenhouse gas emitters and its climate change is expected to lead to both a longer dry season and a shorter but more intense wet season. Further natural and man-made disasters in this country such as extreme wet or dry seasons, volcanic eruptions, earthquakes, tsunamis, floods and man-made forest fires have frequently occurred in recent years. Climate changes has severe impacts on Indonesia's food security. These include temperature increase, which will increasingly limit general crop productivity, leading to estimated food deficits of 90 million tons of husked rice by 2050. Indonesia's commitment for the Paris Agreement states that it will: unconditionally reduce emissions to 26% below business as usual by 2020 and 29% by 2030; achieve 41% emissions reductions by 2030 with international technology transfer, capacity building and financial support. Meanwhile, Indonesia will further implement the Indonesia Climate Resilience Strategy and will get 23% of its electricity from renewable sources by 2050. Four presidential directives in were issued on 16 April 2021 to improve disaster management in Indonesia, attaching much importance on the monitoring the implementation of existing regulations, integration between upstream and downstream, engagement of all related stakeholders and improvement of the education regarding disasters.

10. Japan has described how several climate change phenomena, such as extreme weather, higher temperature and rising sea level, impact on the availability, access and use of food. Mitigation measures may also result in negative consequences, such as higher input price, land use restriction and eventually higher food price. Attention must be paid to the time-scale and magnitude of the impacts. Problems can be dealt with various adaptation measures including technology development, robust supply chain and social safety net. In addition, mitigation policies must be carefully designed for avoiding possible negative impacts on food security. Common characteristics of food security in the ATP region include the dependence on food import from outside of the region, high population density, small scale intensive farming and resource constraints. Climate change will amplify the scope and magnitude of food security issues mentioned above. Therefore, measures must be taken to cope with those, among which common food policy, or at least policy coordination, is meaningful for designing a resilient and sustainable food system for East Asia.

11. Republic of Korea points out that similar to COVID-19 pandemic, climate change has posed severe challenges to food security on regional, national and also people's levels. Now it's time for Asian countries to take joint actions under the principle of "Common But Regional Responsibilities". With implementing Moon's Green New Deal Policy for a more balanced national development, ROK has committed to realize Carbon Neutral by 2050. As for the future regional reaction to food security against the backdrop of climate change, on one hand, common declaration, research cooperation on carbon neutrality, long-term cooperation with international organizations and states, implementation of funding programmes and promotion of cooperation between governments and private sectors are needed. On the other hand, several actions should

be taken on national level such as expediting movements of key agri-food inputs, products and people, taking preemptive steps to reduce food-borne illnesses in agri-food value chains, expediting visa protocols for migrant workers in agri-food value chains, facilitating movements to digital tools and identifying vulnerabilities in food supply chains. Besides, as far as people is concerned, Asian governments should pay more attention to expediting subsidies to farming households, expanding safety nets to incorporate migrants and food workers, including women in food security policies and improving coverage, reliability of agri-food and nutrition data as well.

12. Lao PDR recognizes climate change has become a real threat to food security in various ways, not only in this region, but also beyond East Asia. In addition, things can be worsened due to the fast growth of population. It is therefore challenging for the countries to increase food production capacity to keep up with of the growing demand for food. Moreover, countries in the region are in the process of industrialization and urbanization with more people abandoning agricultural activities. To safeguard and promote regional food security in the context of climate change, political commitments and collective efforts are needed. Energy transition from fossil fuel to clean energy is a must for all. Gigantic amount of money is needed to invest in green development, including renewable energy industry. It is essential that technologies, expertise and financial assistance are transferred from the more developed to the least developed nations. The rate of deforestation must be decreased while the forest areas should be increased. Food production system should be transformed and adapted to climate change by taking actions in the areas of application of science and technologies, joint research in agricultural sector, sharing of best practices, establishment of early warning systems and so on.

13. Malaysia realizes that climate change factors and low land use for food crops have presented big threats to food security in Malaysia. Due to climate-induced Dry Spell , major rice granary areas in Malaysia may face significant rice yields reductions in the periods of 2030-2050. Meanwhile, heavy rain and floods will also cause chronic physical risks and huge burden to many areas and most relief centers in Malaysia. Besides, sea level rise may lead to lots of hidden troubles like groundwater security, coastal erosion, saltwater intrusion and so on. It is an agreement that food sector can contribute to combating climate change by reducing emissions from agriculture. In order to deal with climate change and secure food security, climate resilient agriculture should be greatly pursued and practiced. In terms of mitigation to retain the carbon sink, forest cannot be converted for agriculture. Therefore, circular economy and agroforestry in forest restoration should also be followed.

14. Aside from having consistently high rankings in the Global Climate Risk Index, the **Philippines** also has among the highest food insecure people in the Southeast Asian Region from 2017 to 2019 with 59 million Filipinos categorized as having moderate to

severe lack of consistent access to food. Moderately food insecure Filipinos rose from 44.9 million recorded in 2014-2016. At least 18.8 million Filipinos experienced severe food insecurity or went hungry for days in 2016, an increase from 12.4 million in 2014. Recognizing the widespread impacts of climate change, the Philippines had passed and implemented landmark legislations on Climate Change(CC) and Disaster Risk Reduction Management(DRRM) in 2009 and 2010, respectively. As far as the ways forward are concerned, several measures have been highlighted such as harmonization of CC and DRRM policy, capacitating local government units, aligning development planning at national and subnational levels, rationalizing investment programming, strengthening food production and supply chain systems and establishing East Asian cooperation platform for CC and DRRM.

15. Singapore finds that climate change will continue to exert significant pressure on East Asia's already precarious state of food security. The extent of predicted impacts highly depends on the categories and geographical locations of the crops, the range of yearly temperature and precipitation change, variations in extreme weathers, the CO₂ fertilization effect assumption and adaptation abilities. Instead of a long-term decline in average grain yields induced by climate change, the short-term scenario is likely to be more fluctuation in grain output caused by more short-term weather changes which carries serious economic and social implications. Effects of climate change has led to many threats to East Asian countries' agriculture like China, Japan, ROK. In an effort to cope with food security challenge in the context of global warming, East Asia will have to rely on self-sufficiency policies, domestic adaptation measures as well as increase of food imports and overseas agricultural investment.

16. Agriculture plays a crucial role in **Thailand** with about 8.1 million households (mainly smallholders) accounting for 34.1% of domestic labor force and contribute 9.1% of total GDP. It is expected to adversely affected by climate change because most of farms are smallholders with low level of education and less access to irrigation system. For example, climate change is projected to decrease the production of rice, sugarcane and cassava by 10.18-13.33%, 24.94-34.93% and 14.74-21.26%, respectively. Historical data also revealed that the climate-induced vulnerability of food security in Thailand has been escalated overtime. Therefore, the government should further raise the awareness to farmers in the affected area in order to change their behavior or adapt to the world of changing climate. Thailand should also invest in expanding irrigation areas and promote efficient use of water. Meanwhile, it is important to offer small farmers in accessing to modern technology and innovation plus providing them with knowledge of risk management. Besides, Thailand shall promote mitigation and adaptation practices such as alternative wet and dry for rice production and conditional-cash transfer should be simultaneously applied to farmers to incentivize the adoption of these practices.

17. Vietnam recognizes that climate change is one of the most significant challenges

to achieving food security in East Asia. Vietnam is one of the most heavily affected by the risk of sea level rise stemmed from climate changes. With about 45 million people living in “low elevation coastal zones”, 55% of Vietnam’s population is vulnerable to sea level rise. It ranks second in terms of climate impact on land cultivated area and agriculture. In response to climate crisis, the government should pay proper attention to the root causes and focus on observable symptoms after the fact. Meanwhile, Vietnam should elaborately examine change of land use pattern. The waste water with improper treatment discharged from sites of industrial production into the rivers and the sea must be well supervised and controlled in all countries of the region. The challenge of climate change and climate disasters in East Asia is real and urgent, which calls for a common agenda and forged consensus on some policy goals for sustainable food security and development in the region. Joint efforts in circular economy, databases, financial support and crop productivity growth with technological advancements should be push forward accordingly.

III Major Concerns

18. The following two issues are raised during the session of free discussion:

19. *The balance between food productivity and sustainability.* With regards to the relation between food security and forest conservation, it is shared by all that these two things are really hard to reconcile, just like two sides of one coin. The key may lie in increasing both productivity and sustainability through using plantation in a more sustainable way. From the perspectives of **Indonesia** and **Philippines**, government’s strong stance plus pricing policy and close attention to people’s welfare with strict policy implementation are needed respectively.

20. *Ways to meet increasing food and arable land need.* Further question to the one above, how to deal with the ever rising demand for food and arable land attracts much interest and attention from all participants. **Japan** provides several ideas on this which are thought to be necessary and important by the meeting. They include increasing land productivity, introducing shorter yielding period, rotating agriculture, reducing chemical inputs and spreading cutting-edge technologies.

IV Policy Recommendations

21. The participants to the NEAT Working Group Meeting noted that climate change has exacerbated the risks of food insecurity and natural disasters across East Asia. It is essential for APT countries to enhance regional cooperation to cope with the common threat under the Paris Agreement and the UN Sustainable Development Agenda. In order to avoid risks of food insecurity and natural disasters in this region, the Working Group on “Climate Change and East Asian Sustainable Development” puts forward policy recommendations based on all the presentations and discussions at the Meeting

as follows:

(a) Further institutionalize APT cooperation on food security and disaster management in the context of climate change.

- **Formulate an action plan for APT food security cooperation on climate change mitigation and adaptation.** Serving as a common holistic agenda and forged consensus to strengthen East Asian food security under circumstances of climate change, the plan should identify specific goals, road map, priority areas, timetables and implementing measures for APT food security cooperation on climate change mitigation and adaptation for the 2022-2030 period with the aim of transforming the regional food system into a more inclusive, resilient and sustainable one.
- **Jointly pursue institutionalized policy coordination, especially push the establishment of APT disaster management ministers meeting mechanism,** which shall be held once a year as the major mechanism for harmonizing policy coordination and decision-making in harmonizing climate change and disaster management. To facilitate the Meeting, supporting mechanisms should also be set up accordingly.

(b) Enhance financial support and financing models innovation.

- **Strengthen strong and multi-channel financial support from both ODA (Official Development Assistance, ODA) and private and domestic resources** in such cooperation areas as carbon neutrality, circular economy, renewable and green technology innovation, agricultural infrastructures construction, Climate-Smart Agriculture (CSA), and disaster management, etc.
- **Explore to establish an APT Climate-Smart Agriculture Development Fund.** Besides making use of the APT Cooperation Fund, the Climate-Smart Agriculture Development Fund can be established and used for regional cooperation projects in related areas.
- **Push ahead collaboration and cooperation with international institutions,** for instance, the FAO, WB, IMF, ADB and AIIB.

(c) Advance development partnership in APT cooperation on food security and disaster management cooperation.

- **Promote broad participation of all relevant stakeholders,** such as public and private sectors, civil society, and non-governmental organizations in regional food security and disaster reduction and development projects. Small farmers, women and migrant workers, in particular, should be further incorporated and facilitated into the whole process.
- **Create an APT Forum for Climate Change and Sustainable Development** to bring all parties concerned together annually to share and

showcase experience and best practices and pull wisdom on further promoting regional cooperation in well combining and balancing food productivity and sustainability against the backdrop of climate change.

- **Reinforce regional existing emergency response and management cooperative mechanisms**, among which AFSIS and APTERR are of great significance in terms of updated information sharing, early-warning system building and food crisis prevention and management caused by agrometeorological disasters.

(d) Promote capacity-building through education, training, joint research and pilot projects.

- **Foster regional cooperation on education, training and joint research especially** in enhancing productivity, conserving crop variety and developing new crop varieties, using land and water, fostering Climate-Smart Farming and disaster management. Such training, education programs and joint research should be regularized, well organized and guaranteed by regional cooperation fund. In this regard, advanced economies in this region shall provide more assistance for the less developed ones.
- **Implement village-level pilot or demonstration projects.** Village-level pilot or demonstration projects, those on CSA in particular, should be developed and supported by regional countries to help a large number of our people raise awareness and capacity to take concrete and steady actions on climate mitigation and adaptation in the whole process of agricultural system.

Conclusion

As a serious and irreversible global threat from which no countries can stand aside, climate change is one of the biggest threat factors to the sustainable development of the world and East Asia today, especially the serious challenges to food security and disaster management. At this critical juncture, it is pressing for East Asian countries to further consolidate political will, increase investment, and make integrated efforts to build a region oriented toward prosperity, good governance and sustainable development, making its great contribution to the global cause of combating climate change and realizing SDGs.

Appendix: List of Participants of the NEAT Working Group Meeting on Climate Change and East Asian Sustainable Development

LIST OF PARTICIPANTS

.....

BRUNEI

Saiful Azmi Husain

Senior Assistant Professor, Faculty of Science Universiti Brunei Darussalam

INDONESIA

Budi Haryanto

Professor, Faculty of Public Health, Universitas Indonesia

JAPAN

Koyama Osamu

President, Japan International Research Center for Agricultural Sciences

REPUBLIC OF KOREA

Kun Sik Hong

Research Fellow, Institute for National Security Strategy

LAO PDR

Bounphieng Pheuaphetlangsy

Deputy Director, Strategic and International Studies Division of Institute of Foreign Affairs

MALAYSIA

Henry Chan

Conservation Director of WWF, Malaysia

PHILIPPINES

Sonny N. Domingo

Senior Research Fellow, Philippine Institute for Development Studies

Jean Clarisse T. Carlos

NEAT Philippines Alternate Focal Person

Project Evaluation Officer III

Philippine APEC Study Center Network

Philippine Institute for Development

SINGAPORE

Chen Gang

Senior Research Fellow, East Asian Institute

THAILAND

Witsanu Attavanich

Associate professor, Faculty of Economics

Kasetsart University, Thailand

VIETNAM

Tuan Nguyen Anh
Deputy Director General, Institute of Foreign and Strategic Studies
Diplomatic Academy of Vietnam

CHINA

Cui Haining
Deputy Director, Institute of Asian Studies,
China Foreign Affairs University (CFAU)

Han Zhili
Director, Asia-Pacific Studies Center, CFAU

Miao Ji
Associate Professor, Institute of Asian Studies, CFAU

Dong Liang
Research Fellow, Institute of Asian Studies, CFAU

Li Fujian
Research Fellow, Institute of Asian Studies, CFAU

Wang Sidan
Assistant Professor, Institute of International Relations, CFAU

Li Tianhui
Research Fellow, Institute of International Relations, CFAU

Zhang Yingjin
Research Assistant, Institute of International Relations, CFAU