

# CLIMATE CHANGE AND ITS POSSIBLE SECURITY IMPLICATIONS

## INDONESIA

### Background

1. The UN Intergovernmental Panel on Climate Change (IPCC) fourth report<sup>1</sup> predicts that global warming will trigger enormous physical and social changes. Physical effects that include among others higher average surface and ocean temperatures and rising sea levels could trigger adverse socio-economic impacts such as famine and drought, shifts in economic output and migration patterns.
2. According to the IPCC, the projected regional impacts in Asia span from one extreme to the other such as decreased water availability to increased flooding. Most of the impacts will have serious consequences for coastal and river basin areas, which at present are already heavily populated.
3. Indonesia understands that the impact of climate change is multi-dimensional. Most devastating will be the development costs of climate change. Progress made on various internationally agreed development goals including the MDGs will be threatened should mitigation and adaptation measures not be taken to address the adverse impact of climate change.
4. In this context, our endeavors in fashioning a response to climate change must be guided by the need to address the development costs of climate change, such as mitigating the increase in poverty, communicable diseases, child mortality, and reduction in access to education and health services. The compounding of these challenges will have serious consequences on the development prospects of developing countries.

### Climate Change: Multiple Challenges

5. The major source of concern of developing countries associated with climate change is the anticipated negative effects on their economies and development prospects. For Indonesia, some of our core concerns include:
  - a. **Coastal populations and critical infrastructure:** Marine life and coastal area may be greatly impacted by climate change. Coastal populations worldwide may experience first hand the adverse impacts of sea level rise caused by climate change. With a coastline of some 80,000 km, 17,000 islands and 240 million inhabitants, the impact of sea level rise is of the highest concern to Indonesia.

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<sup>1</sup> IPCC Fourth Assessment Report- "Climate Change 2007: The Physical Science Basis" Chapter 10, page 755-820.

Much of Indonesia's population, industries, infrastructure, and most fertile agricultural lands are concentrated in low-lying coastal areas. Approximately 60% of all Indonesians live in coastal areas and low-lying coastal cities. Receding coastlines and submergence of large areas could result in mass internal migration, amplifying existing population pressures.

- b. **Agricultural productivity and decreased incomes:** Climate change-induced food production losses could drastically increase the number of undernourished people and hinder progress against poverty and food insecurity. In Indonesia, a delay in the wet season and a temperature increase beyond 2.5°C is projected to substantially drop rice yields and incur a loss in farm-level net revenue of 9 to 25%. Sea level rise is also likely to decrease fisheries production.
  - c. **Loss of biodiversity:** Species extinction may lead to harmful effects on agriculture, fishery and forestry, resulting in threats to food security and livelihoods. Climate change could subject Indonesia's ocean water to an increase in temperature of 0.2 to 2.5 degrees Celsius, which has the potential to negatively impact the 50,000 km<sup>2</sup> of coral reefs in Indonesia, about 18% of the world's total.
  - d. **Drought and flooding:** An overall shift of the seasonality and timing of rainfall could lead to unpredictable and uncertain water availability and consequently, uncertain ability to produce agricultural goods and economic instability.
  - e. **Human health:** The direct and indirect consequences on health caused by climate change may increase the potential occurrence of infectious disease epidemics. This could further impede in meeting development objectives due to loss in productivity caused by sickness and economic cost associated with budgetary implication in health sector.
6. The multiple challenges and impact of climate changes requires a multi-pronged approach, yet synergic and coherent, in addressing climate change. While the UN process under the UNFCCC must be fully supported to bring about successful result, other process such as that of the Major Economies on Energy and Climate (MEF), should also be encouraged to help feed into and make the climate change talks under, the UNFCCC achieve desired result.
7. Also important as part of a multi-pronged approach is sectoral initiatives such as mitigating and adapting the impact of climate change on forests and marine resources. In the context of forest, there have been many efforts through UNFF, ITTO and other international forest organizations towards effective forest management as part of mitigating and adapting to climate change. On management of marine and ocean resources, the recent World Ocean Conference in Manado, Indonesia, 11-14 May 2009, was an important effort to integrate coastal and ocean

management approach to promote resilience, in the effort to mitigate and adapt to the effects of climate change on the ocean. These sectoral initiatives must be an integral part of the multi-pronged approach and feed into the global efforts in addressing climate change under the UNFCCC. In this context, the need for financial resources and incentives to further assist developing countries' efforts in promoting diversified, environmentally sustainable livelihood options for forest and coastal communities most vulnerable to climate change should not be overlooked.

## Security and Climate Change

8. The security dimension of climate change should not be seen exclusively in terms of military conflict, endangering and threatening *international* peace and security that requires the attention of the Security Council. Indonesia is cognizant that the impact of climate change is multi dimensional and may include possible security implications. However, Indonesia does not fully share the view that there is therefore an automatic and direct impact of climate change to *international* peace and security. First and foremost, there is a need to clearly identify the security dimension of climate change, including whether it is in fact of such magnitude to threaten international peace and security, thereby warranting Security Council's attention. Gathering the relevant data and establishing a direct link between climate change and its security implications, requires further study and cooperation by all nations.
9. Indonesia is of the view that the security dimension of climate change relates principally to its *developmental* consequences. The departing point of the security dimension of climate change must come from the recognition that at the heart of climate change is a core development challenge that carries potentially serious implications to development efforts.
10. To illustrate, food security is a critical area which is expected to be impacted by climate change and should receive the highest priority. Indonesia has taken some steps to address food security on a national scale and at the international level. We recognize that food security entails an integrated approach which should include effective management of land and marine resources. As part of Indonesia's national food security efforts, targets on self-sufficiency for several important food commodities have been set: rice production since 2005, corn (2008), sugar (2009), beef (2010), soybean (2012). The Government of Indonesia has also initiated with six other countries the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security that was endorsed by the APEC Leaders Summit in Australia in 2007.
11. It is pertinent to also mention energy when addressing climate change. Energy is crucial for all aspects of development. Yet billions go about without reliable energy services. The current model of energy production and use is nearing its limits and there is a glaring need to find affordable and viable options for energy. Climate

change could be one of the avenues to stimulate more efforts into new and renewable sources of energy, thus contributing to global energy security.

## **Conclusion**

12. The global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response, in accordance with their common but differentiated responsibilities and respective capabilities as well as their social and economic conditions.
13. It is critical that this issue be continually be discussed with a broad perspective, inclusive of all stakeholders in a multilateral forum. The United Nations is the most effective and inclusive forum to discuss climate and the set of related global challenges it poses, with the United Nations Framework Convention on Climate Change as the leading institution of the UN that should address this issue.
14. The relevant organs of the United Nations should intensify their efforts in considering and addressing climate change including its possible security implications as appropriate and within their respective mandates.

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