



MINISTER OF RESEARCH AND TECHNOLOGY REPUBLIC OF INDONESIA

OPENING ADDRESS

UNITED NATIONS/INDONESIA INTERNATIONAL CONFERENCE

ON

INTEGRATED SPACE TECHNOLOGY APPLICATION TO CLIMATE CHANGE

Jakarta, 2-4 September 2013

- o Excellency Minister of National Development Planning Dr. Armida S Alisyahbana or her representative;
- o Excellency Minister of Environment, Dr. Balthasar Kambuaya or his representative;
- o Honorable Douglas Brodrick UN Resident Coordinator
- o Honorable Dr. Juan Carlos Villagran from UNOOSA
- o Honorable Charmain of LAPAN, Mr. Bambang S. Tejasukmana
- o Distinguished Guest Speakers, Ladies and Gentlemen

Assalamu'alaikum wa rahmatullahi wa barakatuh,

Good Morning,

First of all, let us all praise to ALLAH SWT, the Almighty for the blessings and healthiness in this happy and blessed occasion and has provided an opportunity for us all to gather here on the event of "International Conference on Integrated Space Technology Applications to Climate Change" conducted by United Nations Office for Outer Space Affairs (UNOOSA) together with Indonesia National Institute of Aeronautics and Space (LAPAN).

Please allow me to express my gratitude to all of you, the speakers and the invited guests who have spent your valuable time to attend this special event. I would also like to extend my highest appreciation to the organizers for their hard workings and efforts to organize this event.

Many experts and decision makers related with the use of space technology and the climate change are attending this conference. Therefore this event is a good forum for us to discuss toward the potential cooperation in the methods of using space-based technology to support the identification and implementation of adaptation measures, as well as to share experiences and lessons learned on the context of mitigation, I hope the forum can give some policy recommendation and identify potential cooperation either international or regional cooperation in this area.

Hororable Guests, colleagues, ladies and gentlemen,

Based on the Intergovernmental Panel on Climate Change (IPCC) third assessment reports, the global average surface temperature has increased by 0.6°C ($\pm 0.2^\circ\text{C}$) over 20th century, and is predicted to increase over tropical latitudes by about 2 to 3% throughout the 20th century, and on average has decreased by about 3% in the sub-tropics. Human activities (primary related to fossil fuel consumption) are considered largely responsible to this unbalance environment.

These changes are leading to environment impacts such as changes in rainfall patterns; increased frequency and severity of floods, droughts, storms, heat waves; changes in growing seasons and regions; changes in water quality and quantity; sea level rise; glacial melt. These phenomena also have already led to multiple socio-economic impacts such as water resources; agriculture; settlements; coastal management; industry and energy; disaster response and recovery plans.

The impacts of climate change are already being experienced across the globe, it will affect everyone and it is expected to have a disproportionate effect on those living in poverty in developing countries. The most vulnerable sectors of society are those dependent on natural resources especially subsistence farmers dependent on rain-fed crops; shanty town dwellers or living on unsuitable land, often unstable and/or flood prone and lacking infrastructure; those living in extreme poverty. Climate change presents a momentous challenge for developing countries. Water scarcity in arid regions, island inundation, bacterial contamination and immunity deficit, food shortages, expensive energy and infrastructure collapse due to energy shortages are all foreseeable crises with catastrophic consequences for poor people. Developing countries need to employ climate change technologies in order to avert climate catastrophe.

Indonesia as one of the developing country consists of not less than 17.500 islands with a coastline of 81.000 km. The majority of population lives in coastal area-around 65% of the population of Java lives in coastal regions. Indonesians are therefore vulnerable to impacts of climate change.

Four important issues related to climate change in Indonesia. First, Indonesia is among the most vulnerable to climate change impact; second, Indonesia is the second biggest contributor to global GHG (Green House Gas) emissions from land use change or deforestation; third, as the fourth biggest country in term of population, Indonesia is also the candidate to become among the most important carbon emitters from energy consumption; and the fourth, Indonesia is still struggling in economic development, particularly poverty alleviation.

Therefore, it is important for Indonesia to mitigate global warming and climate change. Addressing climate change in the context of development requires effective climate change mitigation, and also a development system that is resilient to long-term climate change impacts. This effort requires a cross-sector approach at national, regional and local level. Adaptation efforts must be combined with mitigation, because adaptation will not be effective if the rate of climate change exceeds adaptation capability. Mitigation is an effort to reduce greenhouse gas emission from various sources and increase their absorption by various sinks, thus reducing the burden of climate change impacts on future generations.

President of Republic of Indonesia has committed to reduce the emission by 26 % to BAU in 2020. In order to achieve this target, the action plan that Indonesia has been proposed is rely very heavily on

forestry sector. It will contribute almost 90% of the emission reduction target. Most of this are come from better management (34%), avoiding deforestation (18%) and forest plantations (8%)

Honorable Guests, Colleagues, Ladies and Gentlemen,

In order to monitor the climate change impact on various sectors and also to map and monitor the natural resources for sustainable development, many developing countries need the reliable and continuous geospatial data from comprehensive earth observation. To get this kind of data, the developing country need to develop and master the space technology and/or develop the ground receiving stations for data processing and archiving. The advanced space technology such as satellite technology is developed only is advance economy countries, while these kinds of capabilities are very weak and costly in developing countries. Therefore the cooperation between developed and developing country is very essential to solve this global problem.

In other word, climate change is a strategic issue, in which space technology could play important roles in enhancing the capability in climate change mitigation and adaptation. While space technology is beneficial tool for earth observation, but reliability and sustainability of space based data provision is essential. International cooperation is essential in order to reduce the technology gap between developed and developing country. The cooperation can be in the form of resource sharing (including satellite, data and equipment), technology transfer, exchange researches or scientists, twinning, capacity building for satellite human resources and joint development

Honorable guests, colleagues, ladies and gentlemen

In this event, we altogether expect that we can have and share a common ground to solve and to establish effective ways in transforming what have already done and what are in ongoing process in space technology application for climate change by finding means and way to innovate.

Finally, on behalf of the Indonesia governance, I can guaranty the commitment and support for international cooperation in the area of mitigation and adaptation of climate change.

I do hope this conference can enhance research collaboration and networking among fellow researchers of Indonesia as well as researchers from other countries.

For international participants, please enjoy your stay here and hope you have a great time.

In conclusion, through this opportunity, by saying Bismillahirachmanirachim, I declare that this international conference is officially opened

Thank you for all your patience and attention.

Wassalamu'alaikum warahmatullahi wabarakatuh.

Minister of Research and Technology, Republic of Indonesia

Prof. Dr. Ir. Gusti Muhammad Hatta, MS

