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Wetlands INTERNATIONAL

Press Release

National Seminar
Land Subsidence Mitigation and Anticipation Strategy in the Coastal Wetlands

With the broadening mention and discussion on land subsidence, the Indonesian Coordinating Ministry for Maritime Affairs collaborates with Wetlands International Indonesia in the organization of a National Seminar on Land Subsidence Mitigation and Anticipation Strategy in Coastal Wetlands on Tuesday-Wednesday, 27-28 March 2018, attended by around 70's participants from various relevant institutions. Facts, challenges, and potentials to anticipate land subsidence and mitigate its impacts are brought forth in the series of presentations and discussions, so that a complete perspective and correct understanding are built in the broader community. By end of the seminar a Low Land Subsidence Declaration is produced as an extraction of the series of ideas surface during the seminar, to further be proposed to the government as recommendation to ecosystem restoration efforts in the coastal wetlands, both at the regional and national levels.

Indonesian coastal low lands (estimated to cover a total of 30 million hectares) consists of a variety of important wetland ecosystems, such as the mangrove, peatland, river estuary, lagoon, fish pond, and tidal agriculture land, mostly located not far from settlement area at an elevation of 30 meters above sea level. Those ecosystems serve a very wide environmental value, benefits, and services for the overall living beings, including as habitat, barrier from sea water, fresh water reserve, enormous carbon stock, to mitigate disaster impacts, etc.

The existence of coastal wetlands in Indonesia are currently endangered by conversion into housing areas, fish ponds, plantations, industrial development, and construction of facilities and infrastructure. Other than conversion, massive extraction of ground water in the coastal wetlands by people living in the urban areas has caused land subsidence. This occurs because when water is extracted from the earth's crust, the geologic structure changes, which eventually lower the surface of the land above it. "Land subsidence is apparent in the northern coast of Java between 1-25 cm annually. This trend serves us as a reminder that land subsidence will continue unless there is action to reduce the pace or stop it. Without realizing, land subsidence will result in disasters that will have direct impact to the people, could also be called silent killer, because it causes flooding and the loss of land. When a similar thing detected in Tokyo in 1975, the Japanese government immediately controlled the extraction of ground water. Data shows there is correlation between discontinuation of ground water extraction and land subsidence rate, both in Tokyo and in Jakarta," explained Dr. Heri Andreas, Geodetic expert from ITB.

In the meantime, in peatlands that are mostly located in coastal areas, the process of excessive drainage through canalization as being done by most of palm oil or acacia plantations, also causes land subsidence. “With such condition, more opening of peatlands must immediately be stopped, even more so with peatlands that are drained through canalization. A fact that has not been realized by many is that actually the biggest stock of fresh water in Indonesia is not in the rivers or lakes, it is, in fact, in peatlands,” states Nyoman Suryadiputra, Director of Wetlands International Indonesia, when addressing his keynote speech in the beginning of the seminar. At the same time, the global climatic change is also causing sea level raise. Combined, both processes become a potential to cause coastal disasters, which in the past years have often been seen and underwent in many parts of Indonesia.

Therefore, as an effort to reduce the risk of disaster occurrence amidst the drastic changing of global climate and degrading quality of the environment down to a concerning level, an integrated disaster risk management approach is needed. This approach combines a series of disaster risk reduction (DRR) measures, climate change adaptation (CCA) steps, and ecosystem management and restoration (EMR) that involves all elements of this nation, strengthens institutional roles, applies a continuous learning process for all, while still empowering the livelihoods of people, who occupy the whole nature - yet also have the ability to manage it.

The declaration produced as a consensus of all participants by end of the seminar elaborates a series of steps to be taken in an effort to reduce the rate of land subsidence and anticipate the many risk potentials entailing. The series of steps include control of ground water extraction, in particular in the urban areas, implementation of environmentally-friendly development, control over peatland canalization, and the making of a roadmap for the regional and national levels to anticipate and mitigate land subsidence in an integrated and consistent way. Ir. Agung Kuswandono, M.A., Deputy II for Coordination of Natural Resources and Services, Coordinating Ministry for Maritime Affairs, conveyed, “After this seminar, I am reporting and taking this land subsidence issue to the Minister, to further be forwarded to the President. I am sure that we have budget for this, it is just that the many efforts that has been undertaken by so many parts of our nation, be it the government, NGOs, and the private sector are still segregated, yet to be mainstreamed. Therefore, we need a roadmap to empower all the existing Government Regulations and achieve our wetlands restoration objective”.

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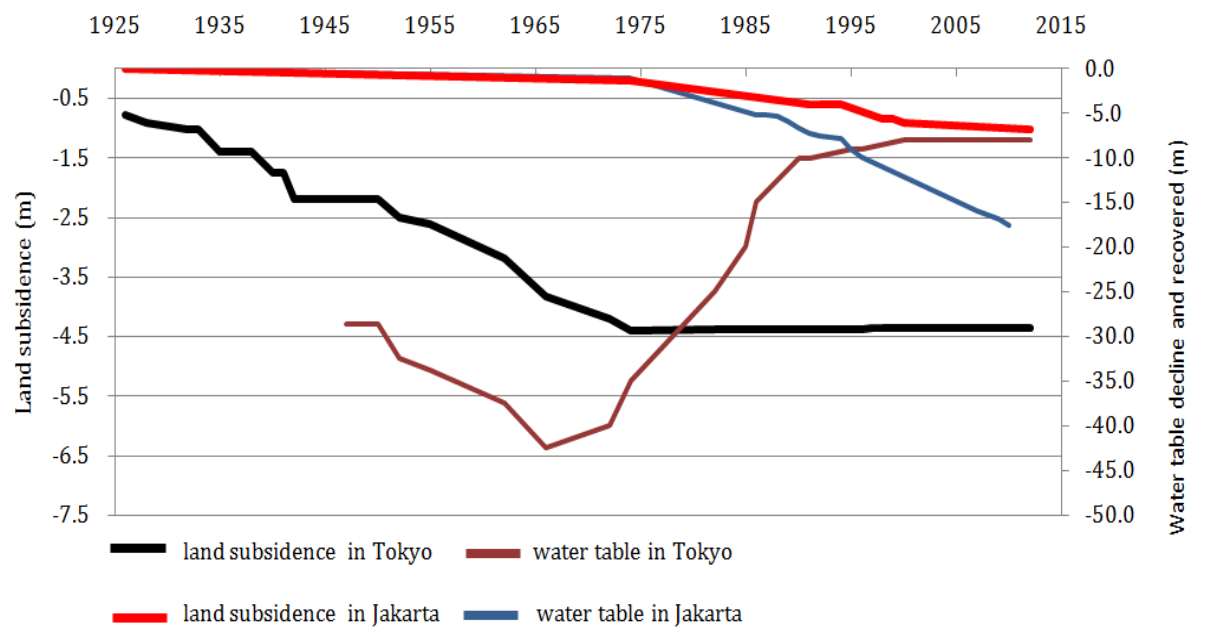

Correlation between ground water table and land subsidence in Tokyo vs. in Jakarta. In the context of Tokyo, it is apparent that when all regulations to control ground water extraction are reinforced, the water table was gradually increased, and the land subsidence rate eventually stopped.

Source: Dr. Heri Andreas, Land Subsidence of Pantura.ppt, delivered at the National Seminar on Land Subsidence, 27-28 Maret 2018.

Media Briefing session with three resource persons: Dr. Heri Andreas, ST. MT., Geodetic expert from ITB; Ir. Agung Kuswandono, Deputy II for Coordination of Natural Resources and Services, Coordinating Ministry for Maritime Affairs; and I Nyoman N. Suryadiputra, Head of Office, Wetlands International Indonesia.