

Special Issue on Philippines SATREPS



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This special issue presents selected findings from the international joint research project between Japan and the Philippines, entitled the Project for Development of a Hybrid Water-Related Disaster Risk Assessment Technology for Sustainable Local Economic Development Policy under Climate Change in the Republic of the Philippines (HyDEPP). The project is conducted under the Science and Technology Research Partnership for Sustainable Development program (SATREPS), with support from the Japan Science and Technology Agency and the Japan International Cooperation Agency.

There is growing concern that more frequent water-related disasters in the Republic of the Philippines, intensified by future climate change, will hinder the sustainable development of regional cities and further accelerate overconcentration in Metro Manila. In response, HyDEPP-SATREPS has developed hybrid water-related disaster risk assessment models that integrate climate change, hydrological, agricultural, and economic models. Using these integrated models, the project evaluates the effectiveness of disaster risk reduction measures in the Pampanga River Basin and in the Pasig-Marikina River and Laguna Lake basins surrounding Metro Manila. Through these risk assessments, the project aims to project future economic development scenarios under different disaster risk reduction strategies and to provide policy recommendations for strengthening disaster resilience.

The project is led by the University of Tokyo and the University of the Philippines Los Baños. Collaborating institutions include the University of the Philippines Diliman and the University of the Philippines Mindanao in the Philippines, and the International Centre for Water Hazard and Risk Management of the Public Works Research Institute, Tohoku University, Nagoya University, the University of Shiga Prefecture, and Kyoto University in Japan.

As the project approaches its conclusion in May 2026, this special issue presents se-

lected results from four research components: data collection and integration; flood and drought risk assessment; water-related disaster resilience assessment; and policy recommendations for sustainable local economic development. We hope that the outcomes presented in this special issue will contribute to strengthening disaster resilience and promoting sustainable local economic development under climate change.