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Editorial office

No 8 Phao Dai Lang, Dong Da, Ha Noi TEL: 04.39364963; Fax: 04.39362711 Email: tapchikttv@yahoo.com or tapchikttv@gmail.com

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Preface

The Japan International Cooperation Agency (JICA) Project for Strengthening Capacity in Weather Forecasting and Flood Early Warning System in the Social Republic of Vietnam is a 3.5 year bilateral technical cooperation project between Japan and Vietnam which started in May 2018. This project is related to S-band radars that were installed at Hai Phong (Phu Lien) and Vinh in September 2017 by another grant aid project of Japan. Scopes of the JICA project are divided into four output targets: 1) surface meteorological observation, 2) radar maintenance and products, 3) weather forecasting, and 4) regional weather dissemination. The Japanese JICA project team members and staff of the Viet Nam Meteorological and Hydrological Administration (VNMHA) collaborated in above output activities. The project term is divided into two periods, Period 1 (June 2018 to March 2020) and Period 2 (April 2020 to December 2021), and in March 2020, the 4th meeting of the Joint Coordination Committee (JCC) was held in Hanoi to summarize the achievements in Period 1 and discuss the prospect of the project in Period 2.

This special issue of the Vietnam Journal of Hydrometeorology (VNJHM) covers research articles based on achievement reports submitted in the 4th JCC meeting and two invited papers relating to the scientific scopes of the JICA activities. The first is a review paper by Tonouchi et al. on the JICA project, and details of achievements in the projects are described by Mikami et al. (output 1), Kimpara et al. (output 2), Sasaki et al. (output 3), and Saito et al. (output 3). Based on the results in output 3, the National Center for Hydro-Meteorological Forecasting (NCHMF) of VNMHA started operational use of GSMaP data in October 2019 (Hung et al.). These six papers are all coauthored by the Japanese JICA team members and counterpart members of VNMHA. Two invited papers are on the start date of active storm season (Huong and Chinh), and on application of remote sensing techniques for analyzing operation of reservoirs (Phuong et al.).

We appreciate efforts made by the JICA members from Japan and Vietnam, and thank the Headquarters of JICA, the Aero-Meteorological Observatory and NCHMF of VNMHA, the Japan Meteorological Business Support Center, and the Japan Weather Association for their continuous support. We believe that this volume contributes to review and demonstrate achievements of the JICA project in Period 1 and becomes a good reference for further progress of the project in Period 2 and future technical cooperation between Japan and Vietnam.

> August 2020 Kazuo Saito, Editor of VNJHM, Quang Dzung Bach, Chief Editor of VNJHM