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Preface

The Japan International Cooperation Agency (JICA) and the Viet Nam Meteorological and Hydrological Administration (VNMHA) have implemented a 5.5-year bilateral technical cooperation project titled “Project for Strengthening Capacity in Weather Forecasting and Flood Early Warning System” since May 2018. Initially, this project was launched in connection with the use of data from two S-band radars installed in September 2017 at Hai Phong (Phu Lien) and Vinh funded by the Ministry of Foreign Affairs of Japan. The project encompasses four main objectives (output targets): 1) Maintenance and calibration of ground meteorological observation equipment, 2) Quantitative precipitation estimation through observation and radar data analysis, 3) Enhanced weather forecasting, and 4) Effective dissemination of regional weather information. Collaboratively, the JICA project team from Japan and the staff of VNMHA have worked on achieving these objectives. The project is divided into two periods, period 1 (May 2018 to March 2020) and period 2 (April 2020 to December 2023). In August 2020, a special issue of the Journal of Hydro-Meteorology (JHM) was published, featuring six research articles based on the progress reports presented during the 4th meeting of the Joint Coordination Committee (JCC).

This special issue of JHM presents the scientific accomplishments of the JICA project during period 2, highlighting the outcomes shared at the 6th JCC meeting in November 2022. The first article is a comprehensive review paper by Akaeda et al. that provides an overview of the JICA project, while the following articles delve into the specific achievements of the four output activities. Output 1, focused on an attempt to detect reliable rain gauge station, is covered by Kobayashi et al. The achievements in output 2, relating to quality check of rain gauge data and radar data for quantitative precipitation estimates, are described by Tonouchi et al. and Kimpara et al. Output 3, centered on advancements in weather forecasting, is discussed by Sasaki et al. for guidance, and Saito et al. for very short-range forecast of precipitation. Finally, Ichijo et al. elaborate on the achievements in output 4, regarding the mobile services for weather observation information. All seven research articles are collaborative efforts between the JICA team members from Japan and the counterparts from VNMHA. Additionally, a technical report by Akaeda et al. focuses on the various training sessions and seminars conducted throughout the entire duration of the JICA project period.

We express our sincere appreciation to the dedicated members of the JICA project members from Japan and Vietnam. We extend our gratitude to the Headquarters of JICA, VNMHA (including the Aero-Meteorological Observatory, the National Center for Hydro-meteorological Forecasting, the International Cooperation Department, the Hydro-meteorological Network Center, and Hydro-meteorological Data and Information Center), and the Japan Meteorological Business Support Center, and the Japan Weather Association for their unwavering support throughout this endeavor. This volume serves as a valuable review and demonstration of the achievements made during period 2 of the JICA project, and we hope it serves as a useful reference for future technical cooperation between Vietnam and Japan.

June 2023

Kazuo Saito, Editor of JHM

Doan Quang Tri, Acting-Editor-Chief of JHM