Recovery of the Asian monsoon variations since the late 19th century by the data rescue activities in ACRE-Japan

*Jun Matsumoto^{1,2}, Tomoshige Inoue¹, Fumiaki Fujibe¹, Jun-Ichi Hamada¹, Taiichi Hayashi³, Toru Terao⁴, Fumie Murata⁵, Hisayuki Kubota⁶, Ikumi Akasaka⁷, Hirotaka Kamahori⁸, Nobuhiko Endo⁹, Haruhiko Yamamoto¹⁰, Shigeru Kobayashi¹¹, Yoshitaka Muraji¹²

1. Deaprtment of Geography, Tokyo Metropolitan University, 2. Department of Coupled Ocean-Atmosphere-Land Processes Research, 3. Kyoto University, 4. Kagawa University, 5. Kochi University, 6. Hokkaido University, 7. Senshu University, 8. Meteorological Research Institute, 9. NARO/NIAES, 10. Yamaguchi University, 11. Osaka University, 12. EScoT

In most of the countries in monsoon Asia, the meteorological observations by modern instruments started during their colonial period before the World War II. However, most of these old meteorological data have not been digitized yet, and have not been utilized in the past climatic change researches. Here, we will briefly introduce our recent data rescue activities mainly for the daily precipitation data in the Former British India, China, Philippines, Vietnam, and Japan for the recovery of the past Asian monsoon variations since the late 19th century as one of the activities in the ACRE (Atmospheric Circulation Reconstruction over the Earth) project. Although with the aid of the World Meteorological Organization, the National Oceanic and Atmospheric Administration archived the scanned images of huge data books all over the world, it was sometimes very difficult to read the numerals in the scanned data. The original data books/sheets are needed for the accurate digitization of the old data. Acknowledgments: Part of this study was supported by The JSPS KAKENHI (25282085,26220202,15K16283,18K19951, 18H01681), The GRENE program of the MEXT. Digitization activities of the former British India were supported by Drs. Shoichi Shige (Kyoto Univ.), Masashi Kiguchi (Univ. Tokyo), Hironari Kanamori (Nagoya Univ.), and Nozomi Kamizawa(Tokyo Metrop Univ.). They were also supported from the India Meteorological Department, the Indian Institute of Tropical Meteorology and Indian students in Pune.

Keywords: Data rescue, Precipitation, Climatic variations, Asian monsoon