Influence of Boreal Summer Intraseasonal Oscillation on the Summer Rainfall in the Philippines

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ABSTRACT

The Boreal Summer Intraseasonal Oscillation (BSISO) is a dominant mode of intraseasonal climate variability over the Asian Summer Monsoon (ASM) regions during boreal summer. Many consider this to be the boreal summer manifestation of Madden Julian Oscillation (MJO) which is dominant during winter. BSISO is characterized by a convective envelope that propagates northward from equatorial Indian Ocean to the Western North Pacific. This ISO during boreal summer modulates rainfall variability in North Sumatra, China, Korea, Taiwan, including the Philippines and other regions in Tropics and it is said to have a more complex propagating feature than MJO. Though there were few attempts that examined the impact of this phenomenon in the Philippines, the need for further exploration is necessary especially on a long-term change. Therefore, in this study, the two real-time indices, BSISO1 and BSISO2 by Lee et al. will be employed and composite maps will be projected to investigate the rainfall variability associated with BSISO in the Philippines. It is expected that Philippines during BSISO1(BSISO2) will experience higher than normal rainfall during phases 5 and 7 (phases 1 and 8) and lower than normal rainfall during phases 1 and 8 (phase 5).

Keywords: BSISO, Rainfall, long term change