BRAIN: Borderless Radar Information Networking over South and Southeast Asia

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Tropical cyclonic disturbances such as cyclones and typhoons cause severe damage and losses in low/middle latitudes of the globe. For instance Cyclone Idai struck the southeastern part of Africa in March 2019. Idai brought torrential rainfall and triggered severe floods in the region and then it caused serious damage in Mozambique, Malawi, Zimbabwe and Madagascar. Cyclone Fani landed at the Indian State of Odisha and caused serious damage in India and neighboring Bangladesh facing the Bay of Bengal in May also in 2019. To monitor such large-scale tropical disturbances, it is necessary to build an international 'borderless' network of more than hundred of weather radars existing in the countries of the South and Southeast Asian region. Although these radars have been operated individually by each national hydro-meteorological service in the region, sharing (or exchanging) the information of radar observations the 'borderless' network of the radars can be built substantially. To materialize the network, the Borderless Radar Information Networking over South and Southeast Asia (BRAIN) project was launched in April 2018. Building the network may not be a perfect solution, that is, it may not be a 'correct' solution to make a stand against the tropical disturbances. However it can be materialized using existing local technologies (the existing radar facilities) and common knowledge (to utilize the radars most effectively), and thus it is a 'viable' solution in the region. There is 'no border' in the atmosphere. Thus the 'borderless' network to monitor the tropical disturbances in the atmosphere should be built as a common tool in the region.