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## Second Year Progress of PREVENIR: Japan-Argentina Cooperation Project for Heavy Rain and Urban Flood Disaster Prevention

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This presentation provides recent research highlights of the project PREVENIR, including radar quantitative precipitation estimates (QPE), ensemble nowcasting, data assimilation, numerical weather prediction (NWP), and hydrological model prediction. PREVENIR is an international cooperation project between Argentina and Japan since 2022 for five years under the Science and Technology Research Partnership for Sustainable Development (SATREPS) program jointly funded by the Japan International Cooperation Agency (JICA) and the Japan Science and Technology Agency (JST). The main goal is to develop an impact-based early warning system for heavy rains and urban floods in Argentina. PREVENIR takes advantage of leading research on Big Data Assimilation (BDA) with the Japan's flagship supercomputer "Fugaku" and its predecessor "K" and develops a total package for disaster prevention, namely, monitoring, QPE, nowcasting, BDA and NWP, hydrological model prediction, warning communications, public education, and capacity building. The total package for disaster prevention will be the first of its kind in Argentina and will provide useful tools and recommendations for the implementation of similar systems in other parts of the world.