

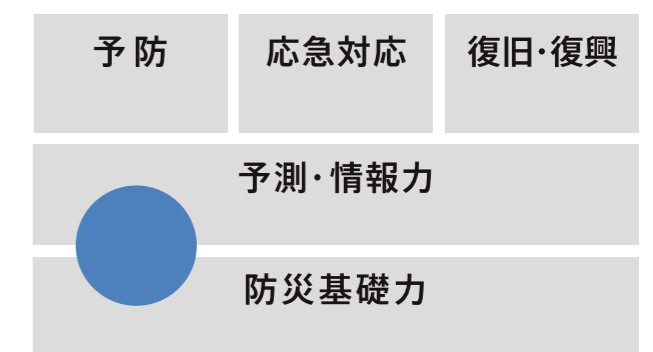
Enhancing Flood Resilience and Adaptation for Future Climate Change 洪水に対するレジリエンス強化による将来の気候変動への適応

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Point

- Comprehensive disaster risk assessment
- Interdisciplinary research
- Research collaboration

研究の領域



Overview 概要

In recent years, heavy rain and associated flooding have triggered considerable damage to agricultural land, houses, and human life in many cities in Japan. The collection and processing of data from disaster areas in near real-time and their aggregation is always desirable to enhance disaster management (Fig. 1). There are some undefined research themes that should be investigated as part of a comprehensive flood disaster risk assessment. The key contributions I have made in this research project include the development of river geometries, a quick estimation of flood inundation, quick exposure assessment of flooded area, prediction of river discharge, etc. (Fig. 2).

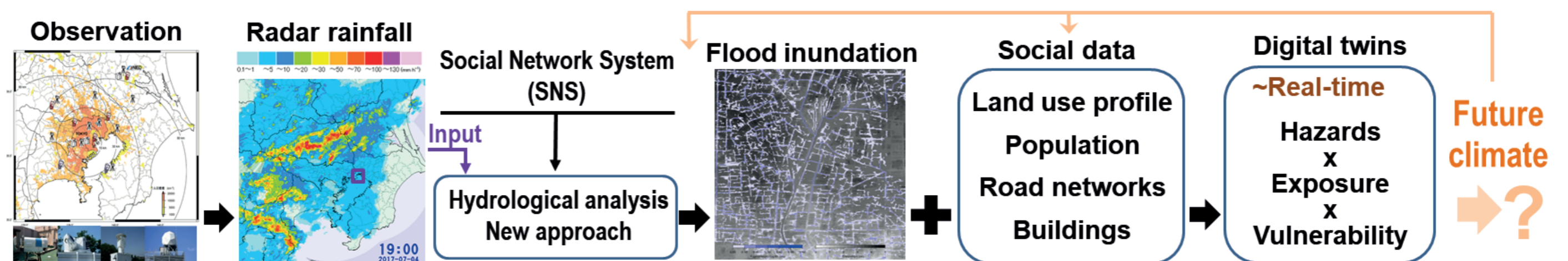


Fig. 1 Framework for the comprehensive flood disaster risk assessment

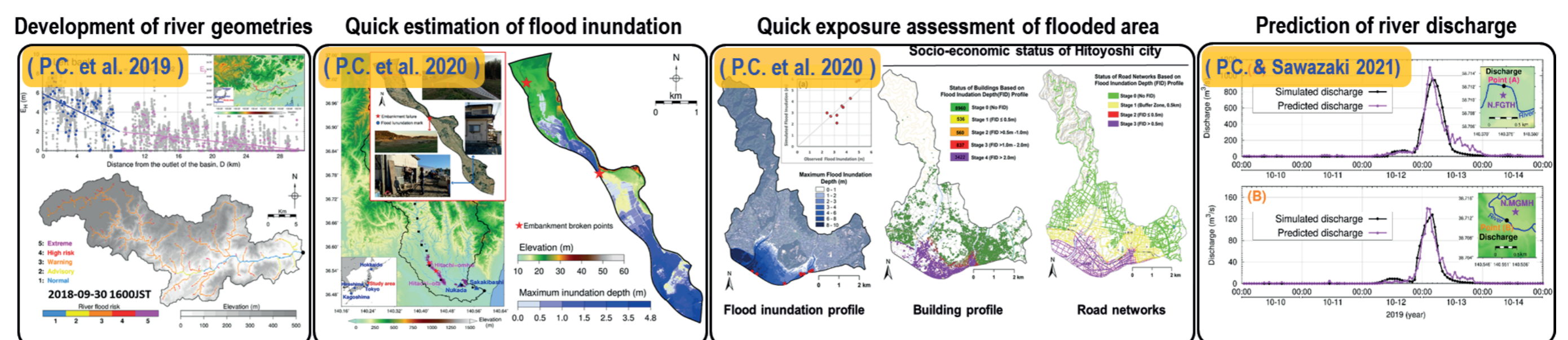


Fig. 2 Research topics and progress results in the comprehensive flood disaster risk assessment.

Prospects 今後の展望・方向性

At this stage, the study is in the process of developing various methods and tools. In order to improve methods and tools for specific purposes, further research works will be performed in the coming days. There are some promising and important proposals for flood disaster prevention and management during heavy rain events, which are based on interdisciplinary subjects and will be actively promoted in the future. In addition, research collaboration with consideration of future climate would be crucial to enhance flood resilience and adoption in a changing environment.

