Control Theory of Weather-Society Coupling Systems for Supporting Social Decision-Making

Project manager

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Summary of the project

In this project, we will achieve the development of a weather control theory to significantly change the future of weather by small external forces, and the acquisition of the ability to accurately predict the social impact of extreme windstorms and floods, which is necessary to reach a consensus on the implementation of weather control. By doing so, we aim to realize a society free from the fear of extreme windstorms by 2050, with weather and social controls based on democratic social decision-making processes.

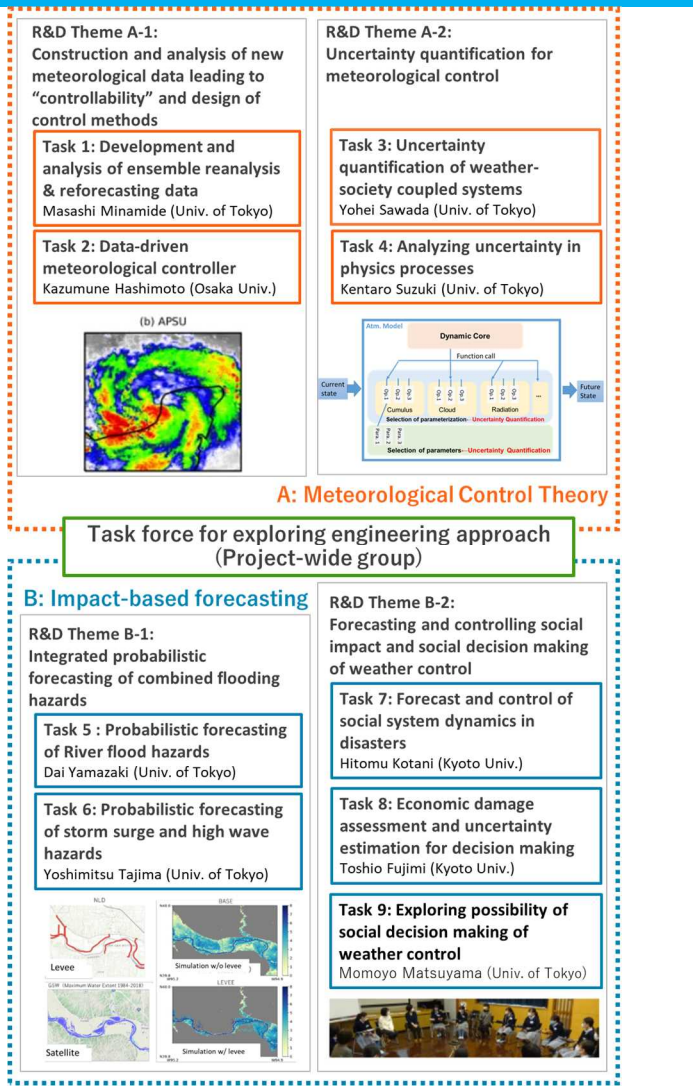
Milestone by year 2032

C. We will develop engineering methods that can safely and efficiently bring intervention effects to the real atmosphere and confirm their effectiveness through laboratory experiments.
D. We will develop socially decisive weather control methods to directly achieve the reduction of damage from flooding.

Milestone by year 2027

A. We will propose a method that can control the time evolution of many extreme weather events with small energy and confirm that it is effective enough to consider the uncertainties in weather simulations.
B. We will realize the integrated prediction of social impacts of extreme weather events, including social dynamics in response to disaster information such as evacuation behavior, and show the uncertainty in the predictions. We will make it possible to evaluate the social impact of weather control and develop a method to make decisions on weather control.

R&D theme structure of the project



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