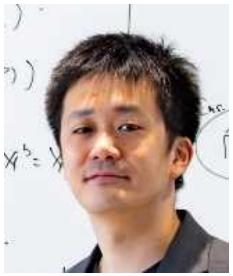
Quantifying Weather Controllability and Mitigatable Flood Damage Based on Ensemble Weather Forecast

Project manager

Shunji Kotsuki

Institute for Advanced Academic Research/Center for Environmental Remote Sensing, Chiba University



leader's institution

Chiba University

R&D institutions

Chiba University, Juntendo University, The University of Tokyo, Kyoto University, Osaka University, Hirosaki University, Sompo Risk Management Inc.

Summary of the project

To achieve weather control, we need to enable discussion on a bottleneck for decision-making: the way to maximize the effect of control. In this project, we will develop the following technologies in order to compare the "cost of weather control" and the "avoidable damage", which are indispensable for this discussion.

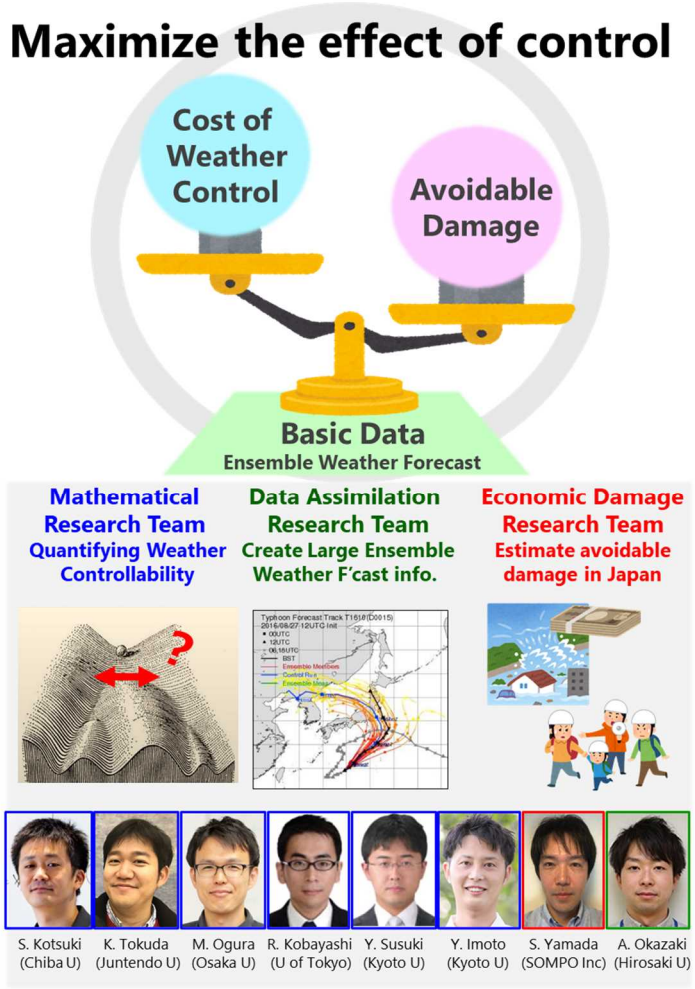
1. **Quantifying Weather Controllability**
   We investigate whether there are meteorological separatrixes between disaster and non-disaster scenarios where we may steer the atmosphere toward desirable directions by feasible manipulations.

2. **Quantifying Avoidable Damage by the Weather Control**
   We develop a framework to estimate economical damage and affected populations throughout Japan under controlled and non-controlled scenario.

Milestone by the end of project (year 2024)

By quantifying weather controllability, establish metrics for judging the feasibility of weather control.

R&D theme structure of the project



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