

RECCA Research Program on Climate Change Adaptation

Research Program on Climate Change Adaptation (RECCA), established as a five-year project in 2010, is a comprehensive research project that is geared towards adaptations and comprised of 12 different research subjects.

The needs range from various fields such as water resources, urban life, agriculture, forestry and fishery industries, to temporal goals including designing adaptations for abnormal weather in a few years and also adaptation planning for a few decades later. In order to respond to the social needs and expectations as early as possible, the RECCA interacts with companies, local governments and specialists in each field.



②Fujio Kimura
Advanced Downscaling Methods for Adaptations to Future Snow Cover Change in the Sea of Japan Side Areas under the Global Warming



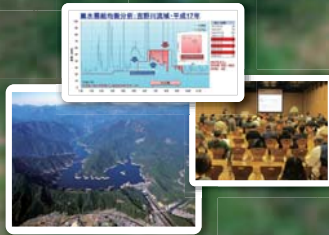
⑩Toshiki Iwasaki
Advanced Downscaling of the Local Easterly Cold Wind "Yamase" and the Winter Monsoon in the Tohoku Region



③Tomohito Yamada
Development and Application of Comprehensive Downscaling Methods for Hokkaido Region



⑪Seishi Ninomiya
Development of Decision Support System for Optimal Agricultural Production under Global Environment Changes



③Seigo Nasu
Development of Decision Making System for Water Resource Policy under Climate Change in Shikoku Area



①Toshio Koike
An Integrated Water Resources Management System Enhancing Adaptability to Climate Change



⑤Koji Dairaku
Vulnerability and Adaptation to Climate Change in Water Hazard Assessed Using Regional Climate Scenarios in the Tokyo Region



⑫Toshiyuki Awaji
An Innovative Method of Forecasting Ocean Circulation and Fishery-Resource Variabilities Linked to Climate Change for Operational Use



⑥Keiko Takahashi
Green Innovation for Urban-Seaside Integrated Area



⑦Satoru Iizuka
Development of a Sophisticated Downscaling Model Using Feedback Parameterizations and its Applications for Adaptations to Urban Heat Islands, Extremely Hot Days and Downpours



④Motoki Nishimori
Statistical Downscaling of Alternative Climate Change Scenarios on the River and Coastal Basin Managements for Environmental Policy-Making of Kochi Prefecture



⑨Teruyuki Nakajima
Development of Seamless Chemical AssiMilation System and its Application for Atmospheric Environmental Materials

Contribution to GEOSS by MEXT's R&D programs



RECCA

Research Program on Climate Change Adaptation (RECCA)



DIAS

Data Integration and Analysis System Program (DIAS-P)



GRENE-ei

Green Network of Excellence - environmental information



SOUSEI

Program for Risk Information on Climate Change (SOUSEI)



GROUP ON EARTH OBSERVATIONS

10 year Implementation Plan



Disasters



Climate



Agriculture



Ecosystems



Water



Weather



Health



Energy



Biodiversity



MEXT

MINISTRY OF EDUCATION,
CULTURE, SPORTS,
SCIENCE AND TECHNOLOGY - JAPAN

An Integrated Water Resources Management System Enhancing Adaptability to Climate Change
Toshio Koike (The University of Tokyo)



This project develops a mitigation technique of flood disaster caused by climate change. The target is the Tokyo metropolitan area and the neighbors without enough provisions against long-lasting drought in river improvement measures. Moreover, the areas are very vulnerable in massive flood disaster led by typhoon and torrent in rainy season, and in urban-specific water damage by local downpour.



 **Water**

 **Agriculture**

 **Climate**

Development of Decision Support System for Optimal Agricultural Production under Global Environment Changes
Seishi Ninomiya (The University of Tokyo)



This project develops a decision support system for optimal agricultural production, which is for robust and stable activities and management. The goal is to minimize climate change impacts for product quality, to optimize cultivation and water resource management, and to consider stable farm management, even with severe climate condition or long-term warming trend.



Development of Seamless Chemical AssiMilation System and its Application for Atmospheric Environmental Materials

Teruyuki Nakajima (The University of Tokyo)



This project develops an estimation system of carbon dioxide and of air pollutants source and their generation. It is implemented over the next-generation global atmospheric model to assimilate both carbon dioxide (greenhouse effect gas) and the pollutants. The system is expected for planning adaptation measures for changing environment of the metropolitan area with complicated factors of warming, air pollution and urbanization.

