

## Preface

This is the collection of papers presented at the 14th Toyota Conference entitled “Present and Future of Modeling Global Environmental Change—Toward Integrated Modeling”, held at Mikkabi Shizuoka Japan in the period 3–6 October 2000, under the sponsorship of the Toyota Motor Corporation.

The theme of the Conference is well represented by its title. Recently, with the increase of public concern about anthropogenic global environmental changes, such as the ozone layer depletion and global warming, predicting possible changes in advance by use of models has become more and more important for society as the basis for making decisions and taking actions to prevent or mitigate undesirable changes. So far modeling of global climate and its change due to increase of the greenhouse gases has been undertaken at many research centers worldwide and the result, the prediction of the future climate over a century under prescribed scenarios has contributed greatly to society in alarming potential danger and letting policy makers be aware of the need of taking actions to prevent or mitigate it. However, in considering that such a large reduction of greenhouse gas emissions as to keep climate change at an invisible level may not be realized and we may not be able to avoid a certain degree of climate change, predicting the future climate will become even more important to society as the basic information for planning the future in many respects.

In such a situation prediction of global warming as currently done is not sufficient to meet societal need not only for its too much uncertainty but in that predictions of many other aspects of global environmental change e.g. change of water resources, land and ocean ecosystem changes are not made at present. What will be needed in the future is prediction of global environmental change as a whole.

In the Conference, aiming to model every aspect of environmental change associated with “global warming” and also to integrate them, specialists of many different parts of global environmental change met together to review present status of each field and discuss the future direction to make a plan for integrated modeling.

The goal is far, and this is a small first step.

We deeply thank to the Toyota Motor Corporation for supporting this valuable meeting and also for their hospitality at the Conference site. We’d like to express special thanks to Mr. Kimura, Mr. Morimoto and other members of the secretariat for their tireless efforts which lead the Conference to success.

Taroh Matsuno  
Hideji Kida