

# Oki Kazuo LAB.

## [Development and Dissemination of Environmentally Advanced Basin Model in Asia ]

Institute of Industrial Science

<http://gmee.iis.u-tokyo.ac.jp>

### Global Monitoring for Ecology and Environment

Engineering/Civil Engineering

Agricultural and Life Sciences/Biological and Environmental Engineering

## Environmentally Advanced Basin Model in Asia

Tropical regions support a large number of plant and animal species, and conservation of these regions is a major issue that must be tackled globally not only by the nations in tropical regions. Agriculture is a critical factor that has a major impact on the environment in tropical regions, including Asia. Agriculture in tropical Asian nations faces four issues in relation to the environment.

The first issue is the expansion of cultivated land and the accompanying increase in water demand. The second issue is environmental problems resulting from the spread of modern agricultural methods. The third issue is the increase in demand for biomass energy. The fourth issue is the concern that global warming will lead to a decrease in agricultural productivity.

In order to mitigate these issues, it is desirable to develop and disseminate an environmentally advanced model in Asia that takes into consideration the balance of water, food and energy in response to climate change. At the same time, native varieties that are effective, together with native cultivation methods and traditional methods of using local resources that are effective in developing Asian nations, should be actively used.

Furthermore, it is necessary to conduct reliable research that is human actions seeking economic betterment through agriculture, and considers the planning and dissemination of technology developments which incorporates the three factors of water, food production and energy at the basin level.

Accordingly, we think that establishing and securing the continuity of a framework for pursuing suitable research while also preparing an infrastructure for water, food and energy is an absolute prerequisite to the development of an environmentally advanced basin model in Asia. In order to overcome this central challenge, we will collaborate with the many organizations such as universities, national institutes, and ministries in Asian countries.

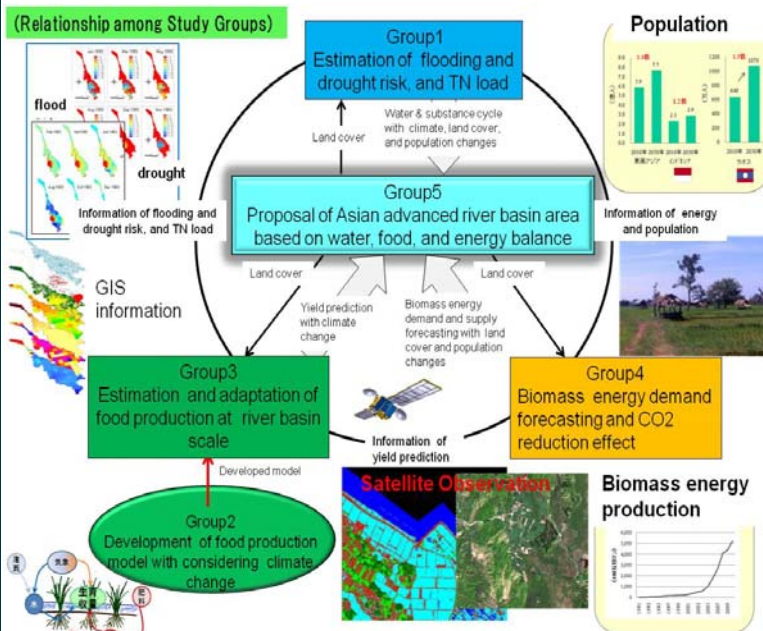


Fig.1 Study groups for proposing the environmentally advanced basin model in Asia

We have carried out the development and dissemination of Asian advanced river basin in Indonesia and Laos from July, 2011.



Fig.2 Environmental conservation community