

# GEC-Japan

**GEC-Japan** is a **networking platform** initiated by the **R**esearch **I**nstitute for **H**umanity and **N**ature (**RIHN**) in order to facilitate and promote institutional and research collaboration among Japan representatives of the Global Environmental Change programs, **IHDP**, **DIVERSITAS**, **IGBP** and **WCRP**.

**GEC-Japan** will host

- 5<sup>th</sup> Belmont forum on Jan. 17-19 at RIHN
- Two sessions at Planet under pressures meeting including sustainability
- Home page, and others

# GEC-Japan (RIHN)



Global Environmental Change-Japan

Japanese

HOME

Organization

Secretariat

Access

Contact



GEC-JAPAN

Asia Vision on GEC >>

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About GEC-Japan >>

Institutional Collaboration >>

Research Collaboration >>

Publications >>

Newsletter >>

## News

2011.9.15

Launch of GEC-Japan homepage  

2011.9.14

I. Meeting of GEC-JP Program representatives and RIHN Secretariat

[BackNumber >>](#)

## Events

2011.9.14-16

International Conference on Science and Technology for Sustainability 2011- Building up Regional to Global Sustainability: Asia vision-

2011.10.26-28

RIHN 8th International Symposium "Beyond Collapse: Transformation of human-environmental relationships, past, present and future"

2012.3.26-29


Planet under Pressure - New Knowledge towards Solutions

[BackNumber >>](#)

 RIHN

 GEC Programs

 Earth System Sustainability Initiative

 ICSU

 SCJ

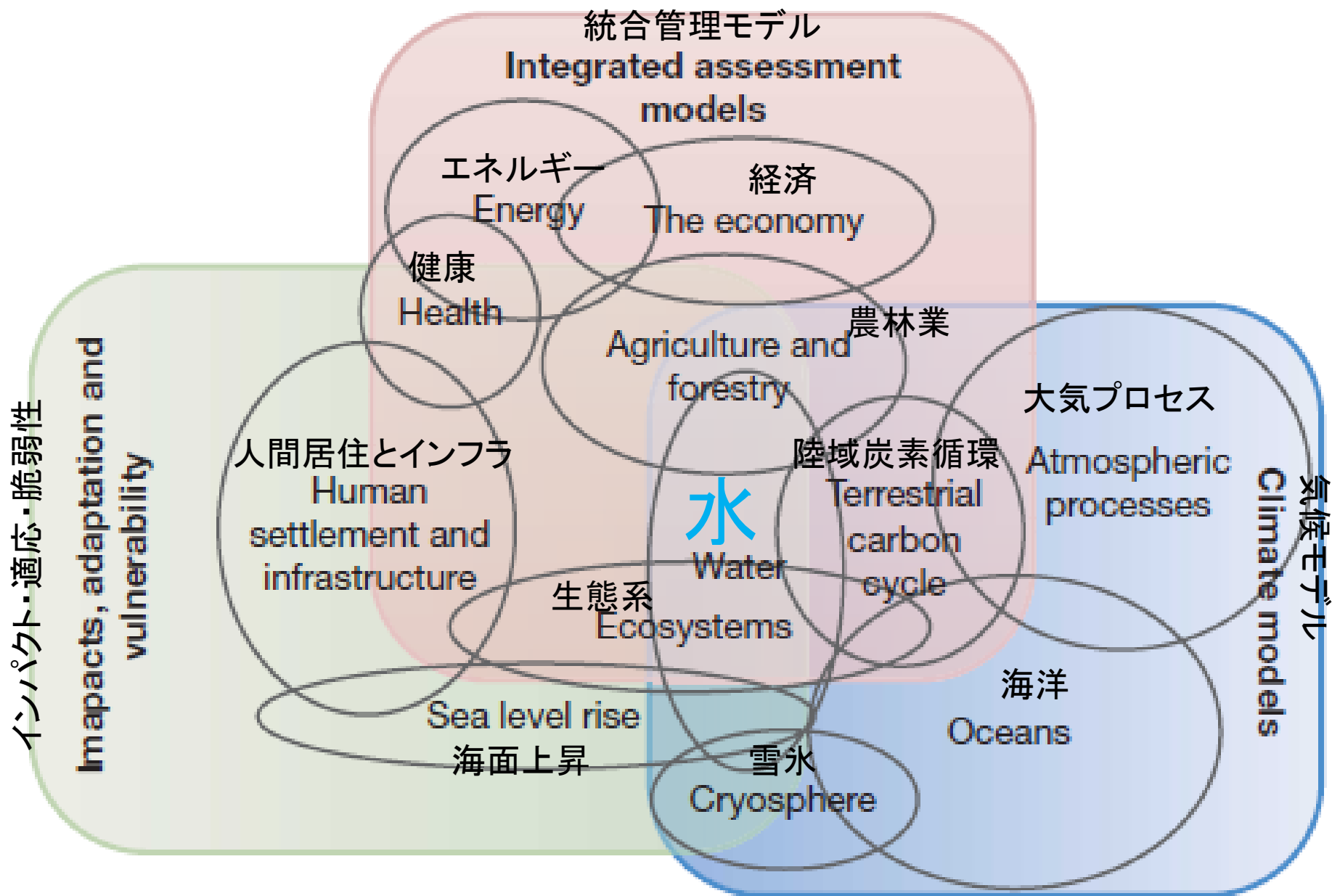
# 2.1 Water resources and management

Co-conveners:

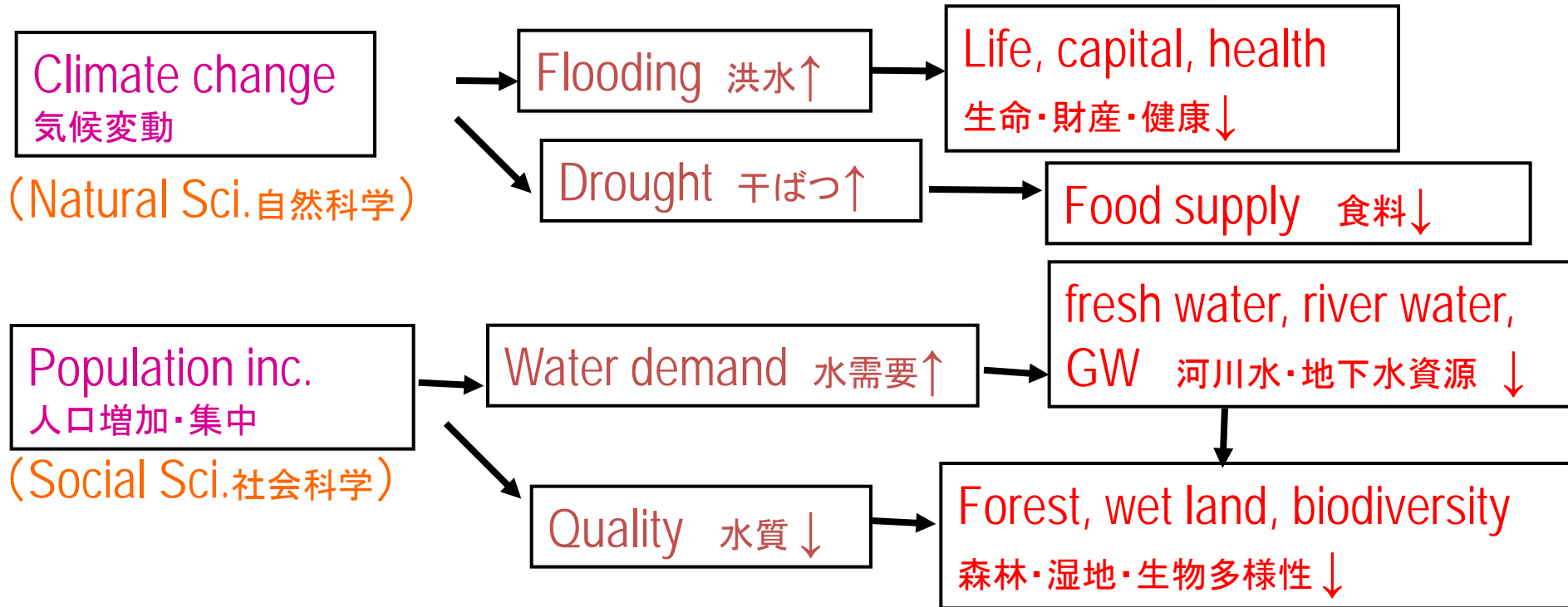
**Taikan Oki** (Tokyo University)

**Makoto Taniguchi** (Research Institute for Humanity and Nature)

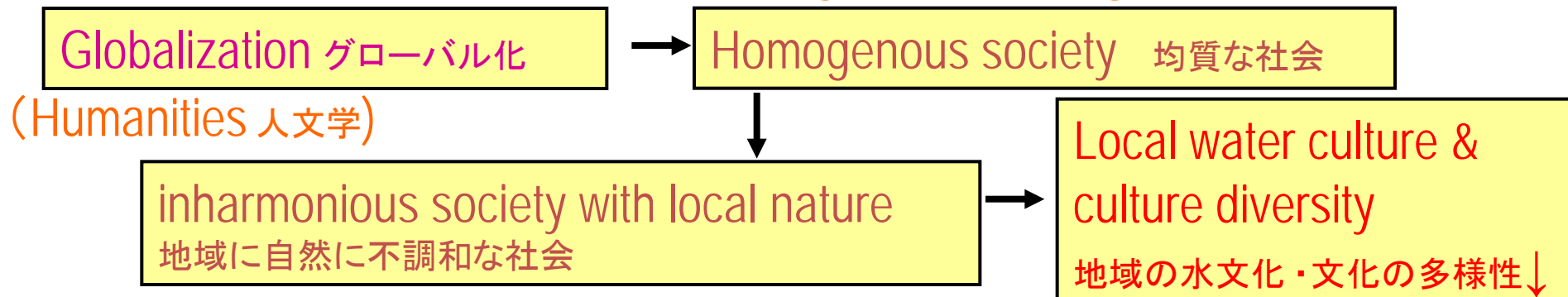
- (1) Water Footprinting for Sustainable Development and Wise Management of Global Water (Taikan Oki)***
- (2) Water Resource Vulnerability & Adaptation Management to Changing Environment in North China (Xia Jun)***
- (3) A global crisis and local realities - Governing water in the 21st Century – (Falk Schmidt)***



# Change of water environment due to increase in population and climate change



## Water Environment Change due to globalization



Previous water problems

too much water to control (flooding洪水)  
too little water to survive (drought干ばつ)

Fast速い

Time時間

rain water  
Lake water  
River water



tap water  
Dam water



Bottled water



Near近い

Space空間

Far遠い

ground water

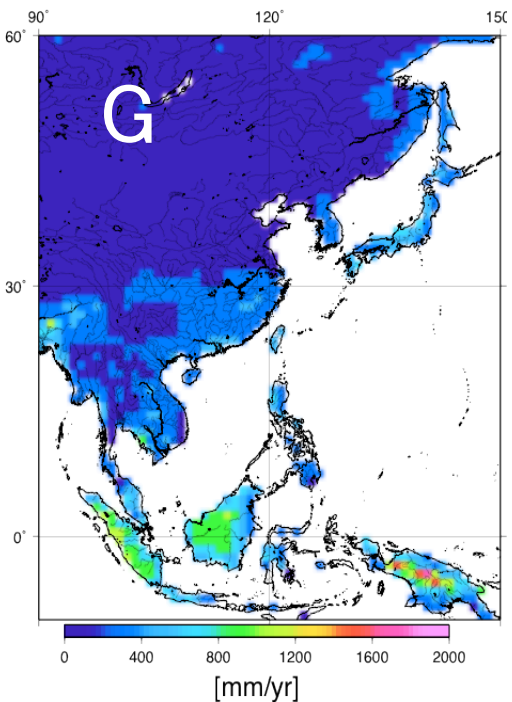
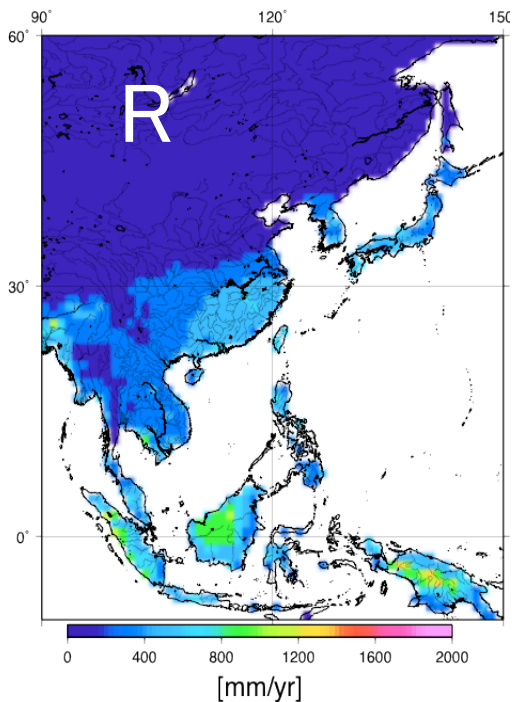
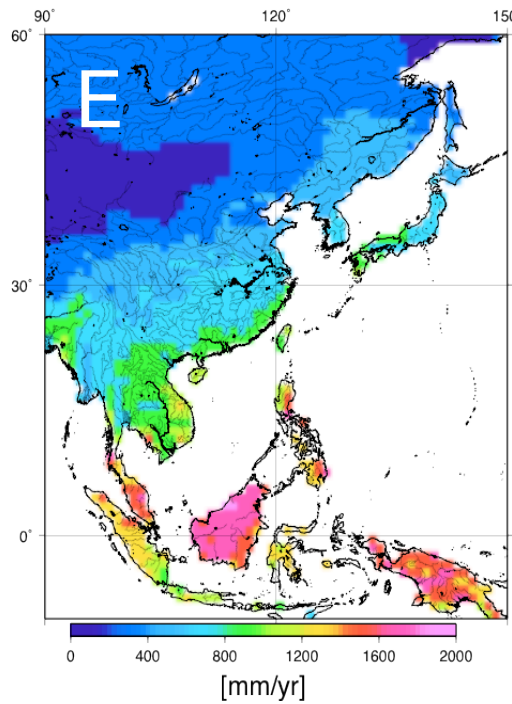
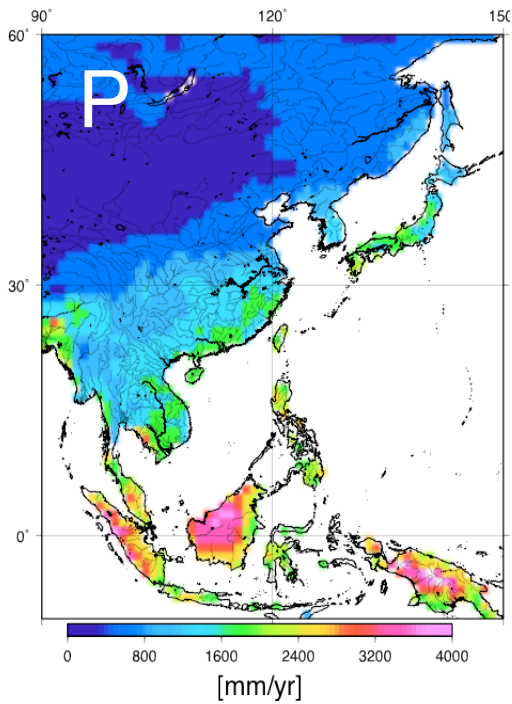


virtual water



too far water & too slow water has big impacts on water imbalance without knowing, therefore we should pay more attention to them for sustainable use.





## Water Budget in Asia アジアの水収支 (GLDAS (CLM))

- P:Precipitation (降水量)**
- E:Evapotranspiration(蒸発散量)**
- R:Surface Runoff(表面流出)**
- G:Potential Groundwater Recharge[可能地下水涵養量]**

GLDAS (CLM)