

IAHS (International Association of Hydrological Sciences) と日本の水研究

谷口真人

総合地球環境学研究所

IUGG(国際測地学・地球物理学連合)

の IAHS(国際水文科学協会)

IAHSのcommission

International Association of

- (1) Cryospheric Sciences ([IACS](#))
- (2) Geodesy ([IAG](#))
- (3) Geomagnetism and Aeronomy ([IAGA](#))
- (4) Hydrological Sciences ([IAHS](#))**
- (5) Meteorology and Atmospheric Sciences ([IAMAS](#))
- (6) Physical Sciences of the Ocean ([IAPSO](#))
- (7) Seismology and Physics of the Earth's Interior ([IASPEI](#))
- (8) Volcanology and Chemistry of the Earth's Interior ([IAVCEI](#))

IAHS Scientific Commissions

International Commissions on

- [Continental Erosion \(ICCE\)](#)
- [Coupled Land-Atmosphere System \(ICCLAS\)](#)
- [Groundwater \(ICGW\)](#)
- [Remote Sensing \(ICRS\)](#)
- [Snow and Ice Hydrology \(ICSIH\)](#)
- [Statistical Hydrology \(ICSH\)](#)
- [Surface Water \(ICSW\)](#)
- [Tracers \(ICT\)](#)
- [Water Quality \(ICWQ\)](#)
- [Water Resources Systems \(ICWRS\)](#)

Working Groups

- [Education in Hydrological Sciences](#)
- [Precipitations](#)
- (PUB)** [Prediction in Ungaged Basins](#)

IAHS日本人ビューローメンバー(会長・副会長)

1979-1983 Vice President S. Yamamoto

1991-1995 Vice President; K. Higuchi

2001-2005 President : K. Takeuchi

Commissions (会長・副会長)

1975-1979 ICGW President: S. Yamamoto

1983-1987 ICSIH Vice President :G. Wakahama

1987-1995 ICSW Vice President: T. Kinoshita

1991-1995 ICWRS President: K.Takeuchi

1999-2003 ICSW Vice President: Shiiba

1999-2003 ICGW Vice president: N. Tase

1999-2003 ICT Vice President: T. Tanaka

2003-2007 ICWRS Vice President : T. Kojiri

2007-2011 ICGW Vice president;:M. Taniguchi

2011-2015 ICT Vice President: M. Tsujimura

2011-2015 ICSIH Vice President: T. Hiyama

International Hydrology Prize

2012 K. Takeuchi

Tison Award Winner

2003 Y. Agata, S. Kanae,
T. Oki, T. Saruhashi &
D. Yang

2009 Y. Hirabayashi,
S.Kanae & S. Emori

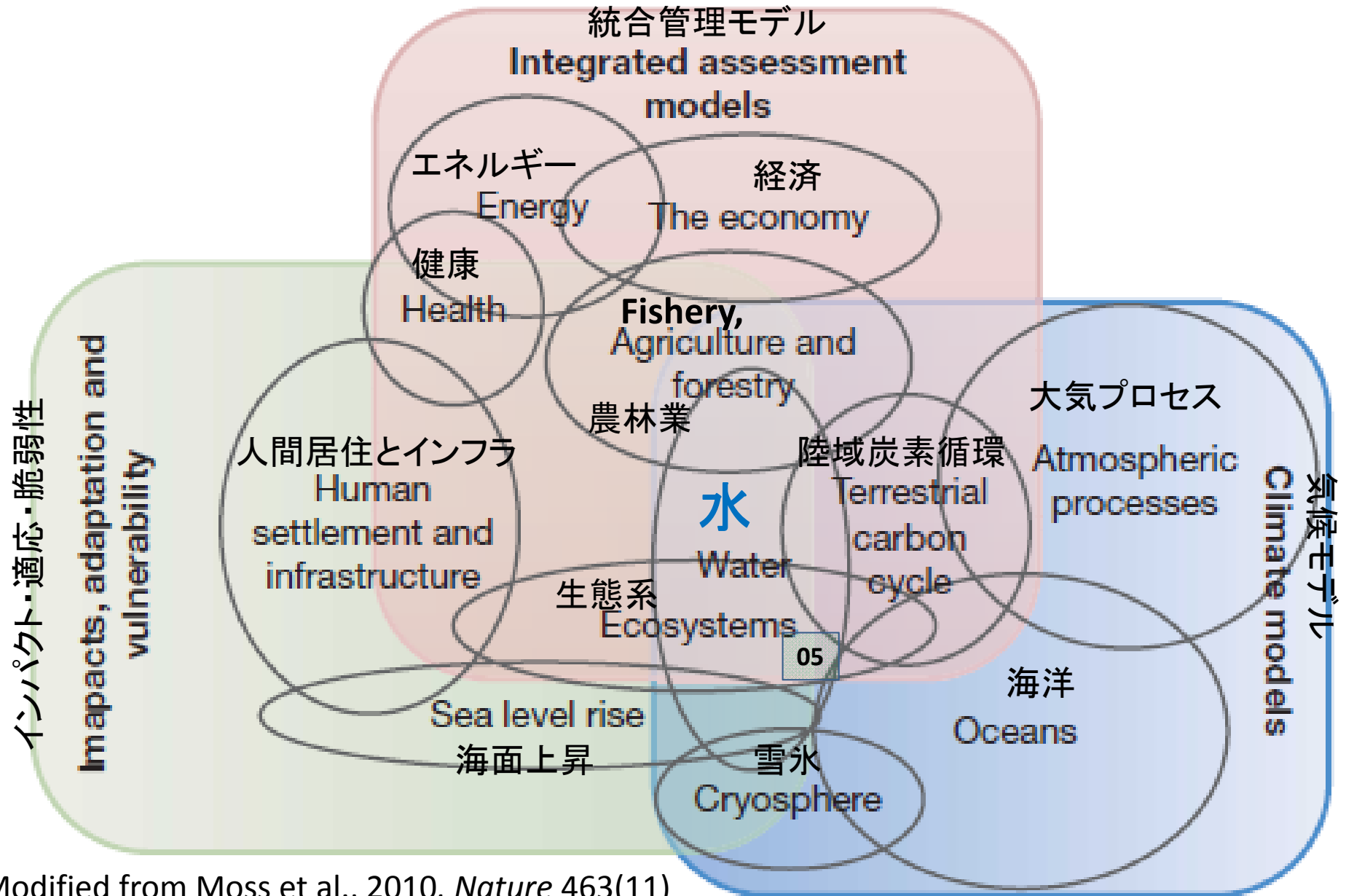
IAHS General/Scientific Assembly

- 4年ごとにGeneral Assembly (GA,IUGG時)
前回(Melbourne, 2011), 次回 (Prague, 2015)
 - GAの中間年にScientific Assembly (SA)
前回(Hyderabad, 2009), 次回(Gothenburg, 2013)
- ⇒GA,SAとも若手研究者をsession Co-Convener に

日本で開催のIAHS

- IAHS・IAMAP Joint Assembly
Yokohama (Japan), 1993
 - IAHS General Assembly, IUGG
Sapporo (Japan), 3-11 July 2003
- ⇒SAを他協会と共催で？

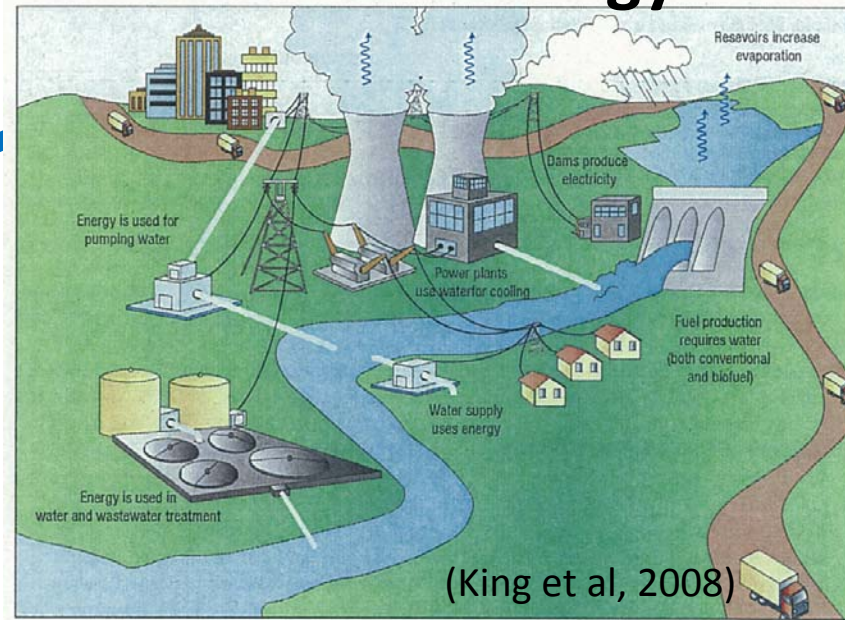
水の研究の広がり



Modified from Moss et al., 2010, *Nature* 463(11)

水-エネルギー-食料 nexus

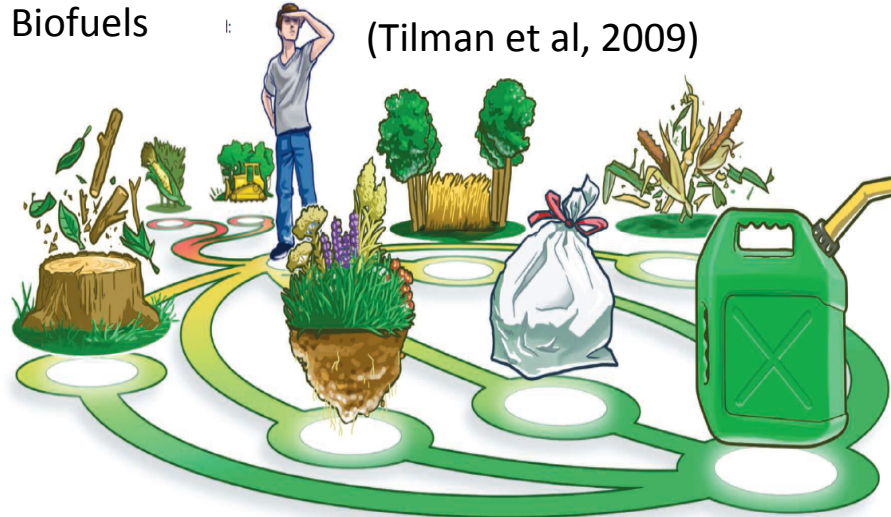
Water - Energy



Energy - Food

Biofuels

(Tilman et al, 2009)



Food - Water



学術の動向(日本学術会議) 「地球環境研究」特集号

I. Global Environmental Change研究の歴史

- (1)1950-1980: 人類が地球システムの1部として捉えられる
- (2)1980-2000:WCRP/IGBP/DIVERSITAS/IHDP
- (3)2001-2010:ESSP (GWSP)
- (4) 2010- : Ground Challenge, Future Earth

II.地球環境研究統合への動きと我が国の対応

地球研10th 記念シンポジウム

(2011年4月)

← Occasional paper



日本学術会議・持続性国際会議

(2011年9月)

← GEC-Japan Platform



5th Belmont Forum

(2012年1月地球研)

← Japan (RIHN) CRA



Planet Under Pressure

(2012年3月)

← Springer



Rio+20 (2012年6月) Future Earth



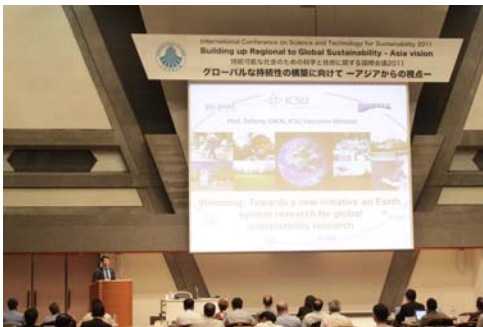
GEC-JP/Asia symposium

(2012年12月13/14)

← Rio paper



地球研創立10周年記念シンポジウム(2011年4月20日)



持続性国際会議(日本学術会議)
2011年9月14-16日



Rio+20 Science Forum

Future Earth

- * With Funding Agency
- * Transdisciplinarity
- * Co-design/Co-production
- * Regional framework
- * Young Scientists

CRA (Collaborative Research Action

Coastal zone vulnerability

Freshwater security

候補課題

Arctic



5th Belmont Forum會議
2012年1月17-19 (地球研)

Future Earth (Agenda, Meta theme)

(1) State of the planet; Earth and socio-ecological system trends, processes and projections

(2) Resources for development and wellbeing,; ensuring food,

water, other ecosystem services

(3) Risks of catastrophe, global thresholds & disaster risk reduction

(4) Critical regions; cities, mountains, polar zones and other vulnerable places

(5) Lower carbon societies; climate change, energy, and the economy

(6) Living with the sea; ocean coasts and blue societies

(7) Global responses; managing change and governing environment

(8) Transformative pathways; toward the sustainable future earth

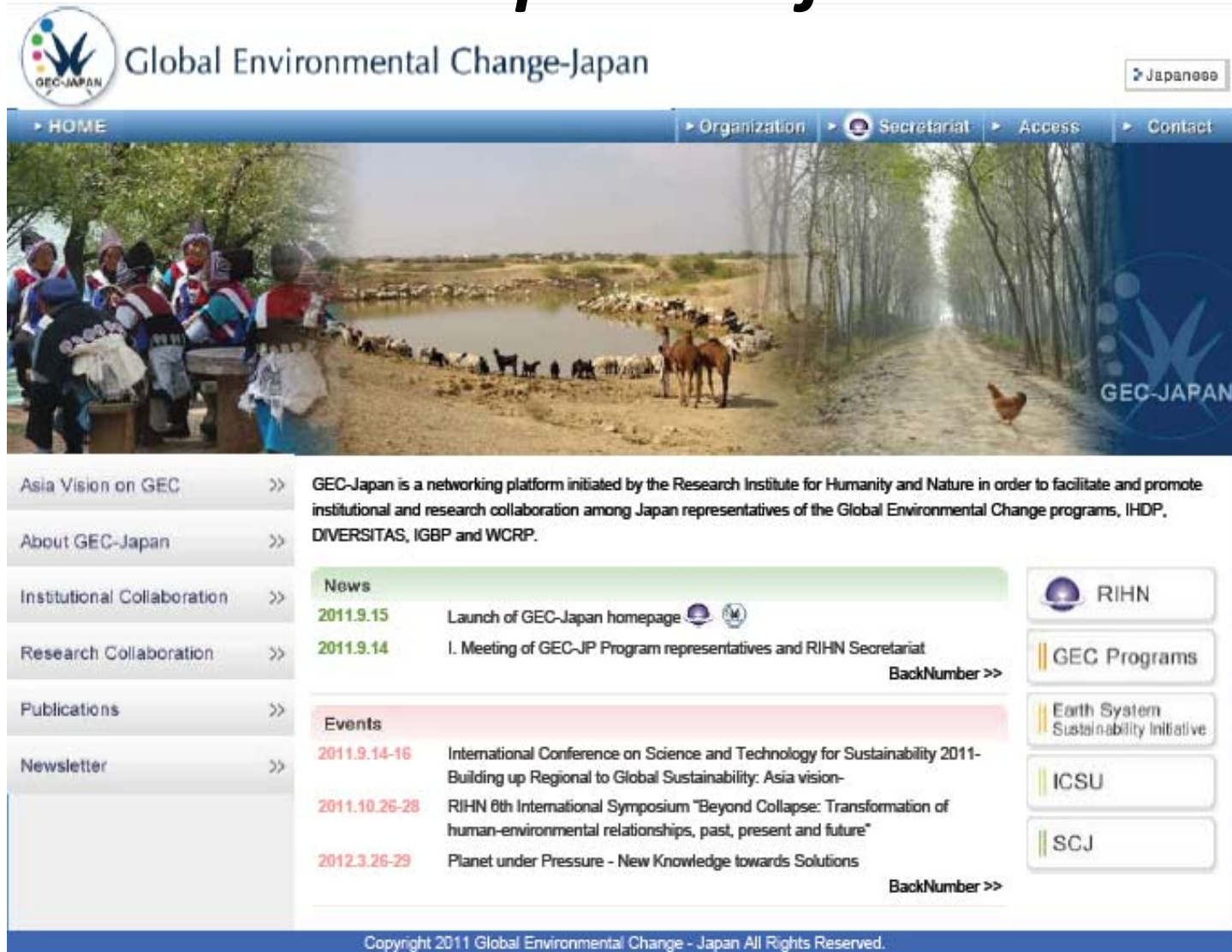
(9)

今後のプロセス

- Future Earth “**online consultation and discussion**”(2012年後半)
- 地域ワークショップ(4回,2012年後半) **Asia-Pacific: Nov. 21-23(KL)**
- Future Earth Scientific Committee設立(2013年)

統合への動きと我が国の対応

GEC-Japan Platform



Global Environmental Change-Japan

Japanese

HOME Organization Secretariat Access Contact

Asia Vision on GEC >> GEC-Japan is a networking platform initiated by the Research Institute for Humanity and Nature in order to facilitate and promote institutional and research collaboration among Japan representatives of the Global Environmental Change programs, IHDP, DIVERSITAS, IGBP and WCRP.

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

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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

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RIHN

GEC Programs

Earth System Sustainability Initiative

ICSU

SCJ

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<http://www.chikyu.ac.jp/gec-jp/>¹

今後の課題

- (1) 水のテーマの拡大 (nexus等)と
統合 (security等)
- (2) Future Earth: Science in/for Society
co-design/co-production
- (3) 日本学術会議IAHS小委員会と
日本ユネスコ国内委員会IHP分科会
- (4) JpGUとの関係
- (5) GEC-Japan/Asia Platform
Asia vision, Future Asia, Asia actions