






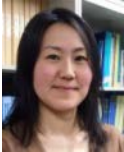

Introduction to impact/adaptation studies in Japan and recent IPCC-AR5 related activities

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Member of AIM/Impact

- **Dr. Hideo Harasawa (Leader)**, Integrated assessment 
- **Dr. Kiyoshi Takahashi**,
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- **Dr. Naota Hanasaki**, Global assessment (Water) 
- **Dr. Yonghee Shin**, Global assessment (Agri.) 
- **Dr. Yuji Masutomi**
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- **Dr. Yuko Onishi** 
➤ IPCC AR5 Chapter Scientist,
Global/Regional assessment (Ecosystem)
- **Dr. Yasuaki Hijioka**, Integrated assessment 

Research activities in FY2011 (1)

- **Climate Change Research Program (CCRP) in NIES**
 - Project 2. Climate change and global risk assessment
 - ✓ Evaluation of strategies for climate change risk management at **global scale**, 2011.4-2016.3
 - ✓ K. Takahashi, N. Hanasaki, Y. Shin, Y. Hijioka
- **The Environment Research & Technology Development Fund (ERTDF) funded by the MoE, Japan**
 - “S-5” Integrated research on climate change scenarios to increase public awareness and contribute to the policy process, 2007.4-2012.3
 - ✓ **Global scale sector impacts projections** considering uncertainties in climate projection
 - ✓ K. Takahashi, Y. Shin, Y. Hijioka
 - “S-8” Comprehensive Research on Climate Change Impact Assessment and Adaptation Policies, 2009.4-2014.3
 - ✓ **Regional scale sector impact assessment** considering the feasibility of realizing a safe and secure climate change-adaptive society
 - ✓ H. Harasawa, K. Takahashi, N. Hanasaki, Y. Masutomi, Y. Hijioka

Research activities in FY2011 (2)

- **Grants-in-Aid for Scientific Research funded by Japan Society for Promotion of Science <KAKEN>**
 - Detecting drought and flood risks by real time simulation using a global water resources model
 - Initiative of global water sustainability risk assessment using integrated hydrological and water resources model
- **Science and Technology Research Partnership for Sustainable Development (SATREPS) funded by the Japan Science and Technology Agency (JST) and the Japan International Cooperation Agency (JICA)**
 - Integrated study on hydro-Meteorological Prediction and Adaptation to Climate change in Thailand
- **Core Research for Evolutional Science and Technology (CREST)**
 - Development of long term vision for sustainable water use of the world process
 - H08: An integrated model for the assessment of global water resources
 - ✓ Model validation, Real time simulation, Complex network theory, Input/Output data server, Distribute source code and manual, Technical support
 - ✓ N. Hanasaki

Research activities in FY2011 (3)

- **Contributing international research activities**

- Agricultural Model Intercomparison and Improvement Project (AgMIP)
 - ✓ Distributed climate-scenario simulation exercise for historical model intercomparison and future climate change conditions with participation of multiple crop and world agricultural trade modeling groups around the world
 - ✓ K. Takahashi, S. Fujimori, T. Masui

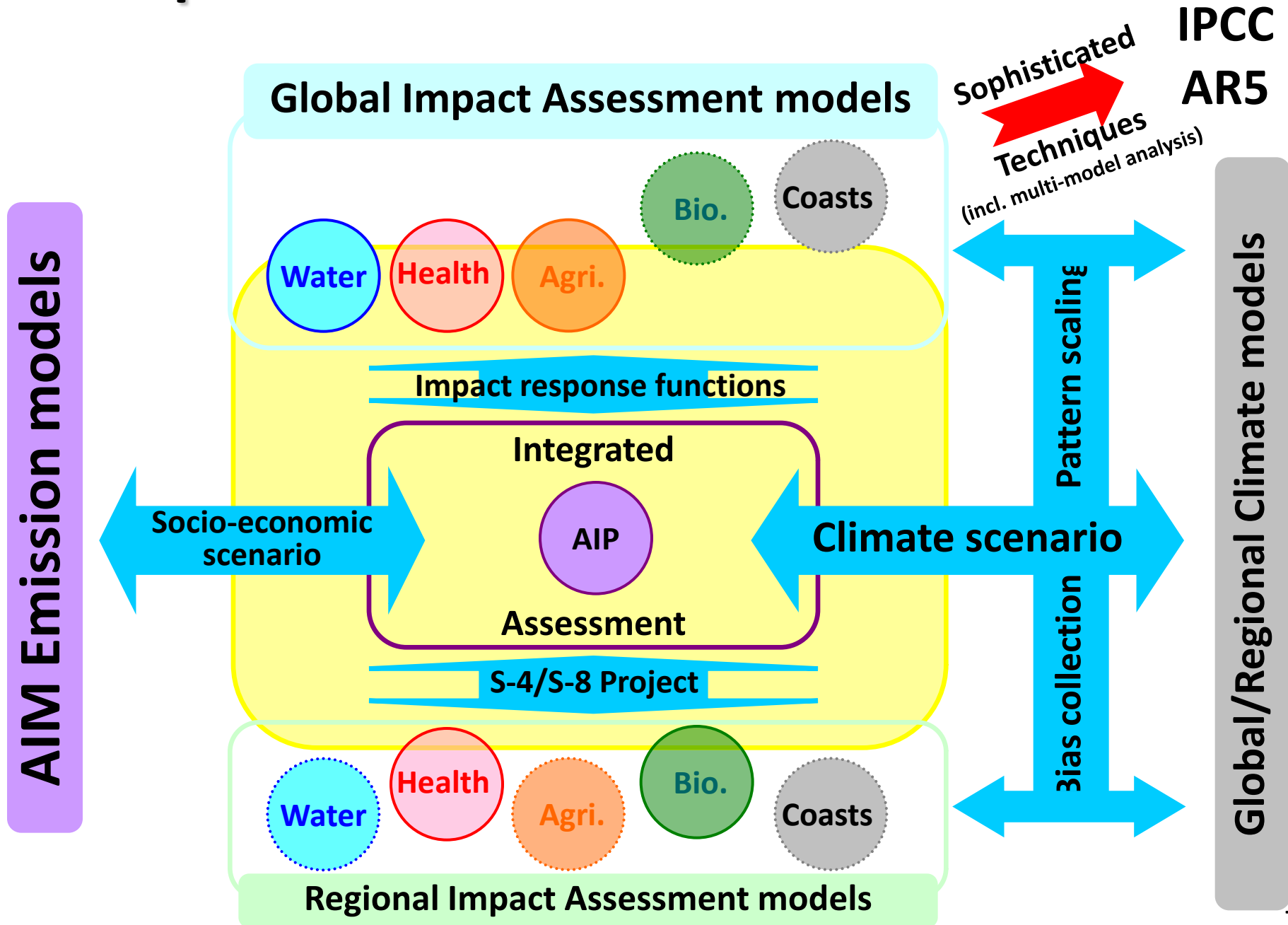
- **Contribution to IPCC activities**

- IPCC-SREX, 2009.09 - 2011.11
 - ✓ LA of Ch. 4 (Changes in impacts of climate extremes: human systems and ecosystems)
 - ✓ K. Takahashi
- IPCC-AR5(WGII), 2010.06 -
 - ✓ LA of Ch. 19 (Emergent risks and key vulnerabilities), K. Takahashi
 - ✓ CLA and CS of Ch. 24 (Asia), Y. Hijioka & Y. Onishi
- Development of SSPs, 2010.12 -
 - ✓ Collaboration with CGE, Introduction of SSPs to Japanese IAV researchers
 - ✓ K. Takahashi, N. Hanasaki, Y. Hijioka

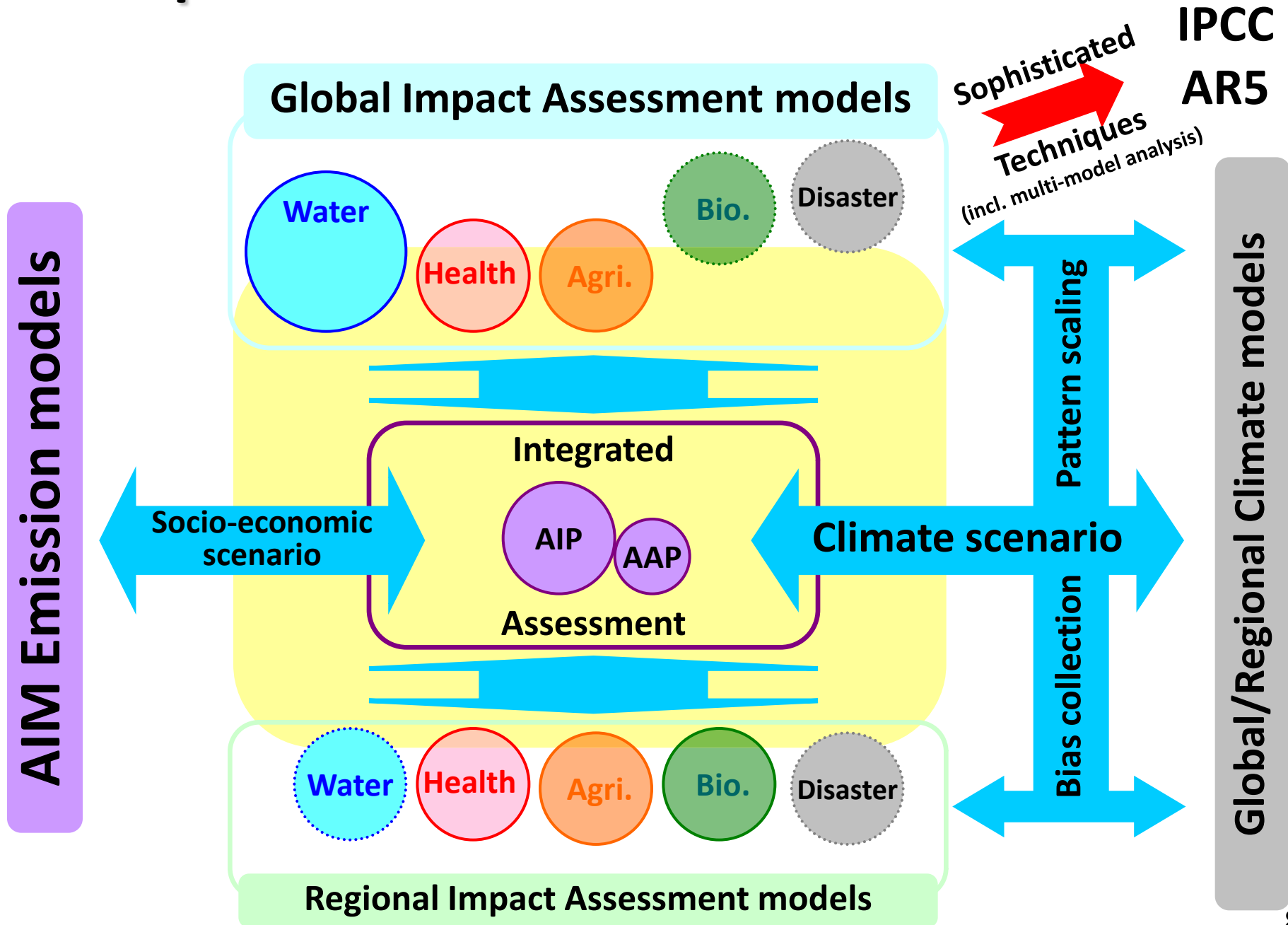
Research activities in FY2011 (4)

- **Contribution to Japanese IAV communities**
 - Management of Task group for climate scenario utilization (TGfCS), 2008.05 - 2012.3
 - ✓ Coordination for data and knowledge sharing between climate modeling community and impact
 - ✓ K. Takahashi, N. Hanasaki, Y. Hijioka
- **Regional Impact assessment**
 - A study on comprehensive assessment of climate change impacts in Tokyo (Tokyo), 2009.10 - 2012.3
 - ✓ Quantitatively grasping the impacts of climate change field in Tokyo Metropolitan Government Area
 - ✓ H. Harasawa, Y. Onishi, Y. Hijioka

AIM Impact Research Framework in FY 2009

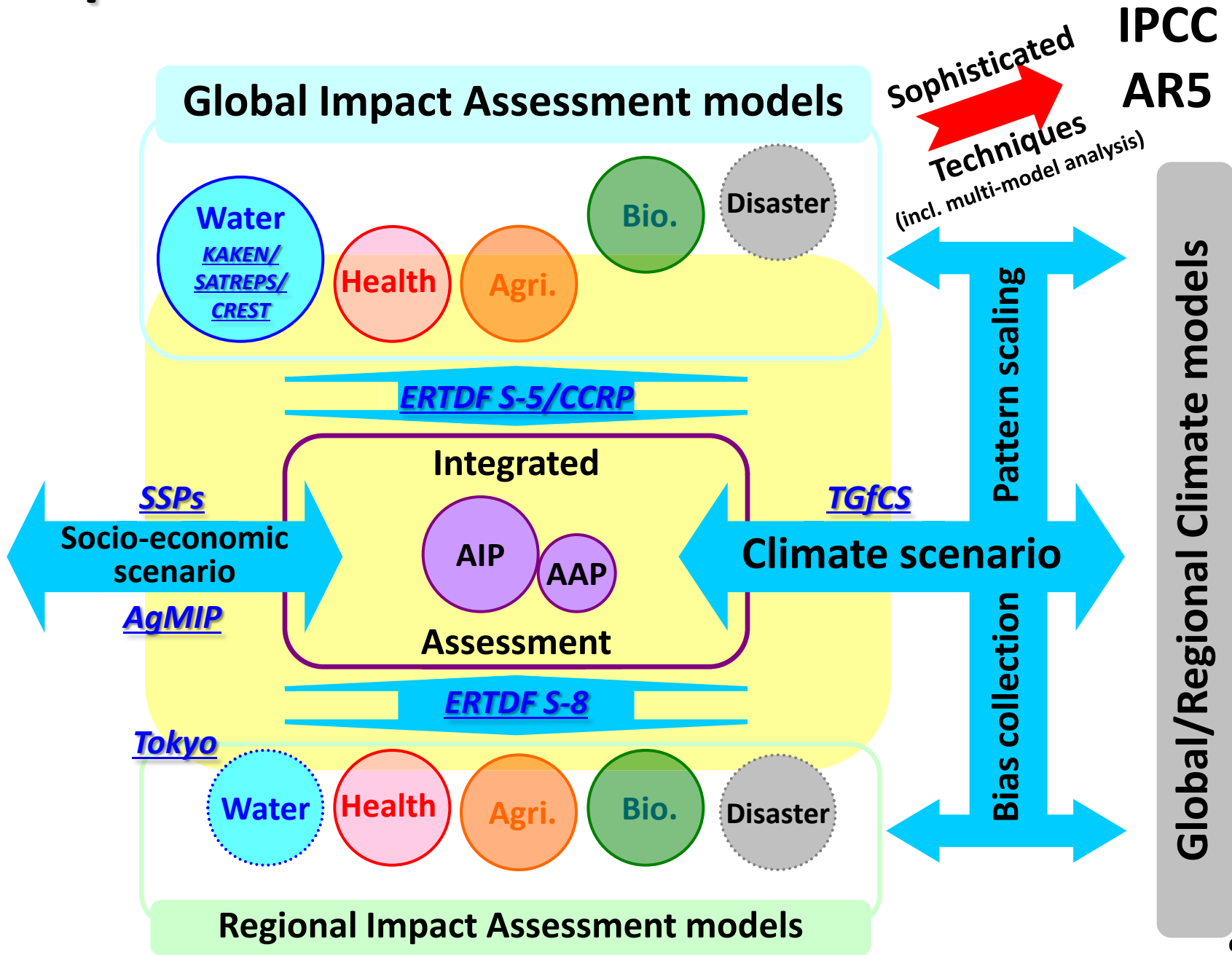


AIM Impact Research Framework in FY 2011



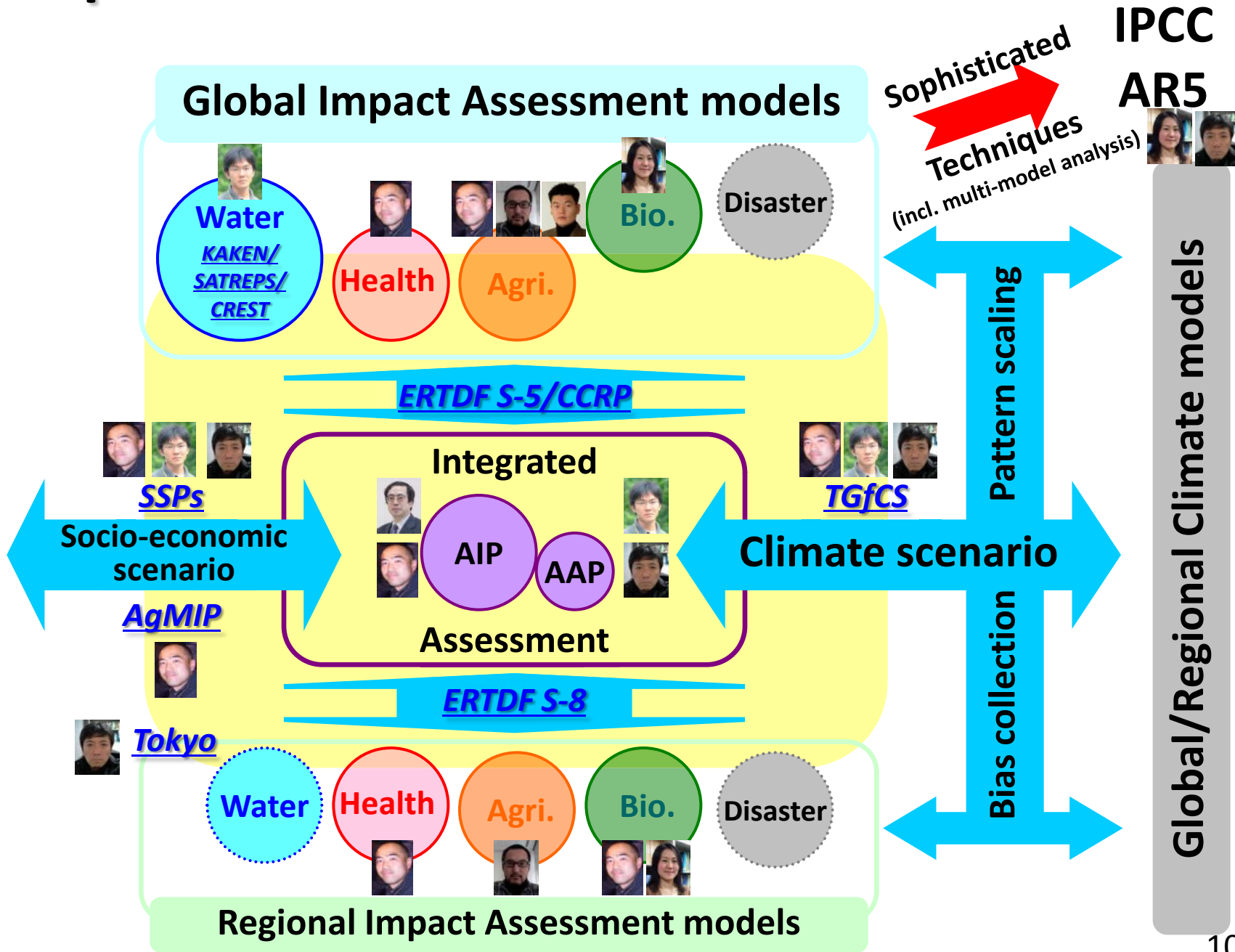
AIM Impact Research Framework in FY 2011

AIM Emission models



AIM Impact Research Framework in FY 2011

AIM Emission models



Thank you for your attention !!!