

CENTRO INTERUNIVERSITARIO  
DI RICERCA PER LO SVILUPPO  
SOSTENIBILE CIRPS



**SAPIENZA**  
UNIVERSITÀ DI ROMA



# Rome ICSS 2010

2<sup>nd</sup> INTERNATIONAL CONFERENCE on SUSTAINABILITY SCIENCE

**Francesca Farioli, Jampel Dell'Angelo, Arnim Wiek**



## ICSS 2009 Tokyo

### *Main aims:*

promote a deeper **understanding of diverse academic approaches to Sustainability Science** and to **discuss how to design a framework for integrating and structuring knowledge on Sustainability Science.**



## Recommendations for the creation of a sustainability science NoN

- The identification of complementarities so as to reduce duplication of effort and to enhance synergies
- Cultural and geographical diversity in network participation
- Greater participation of developing countries
- The engagement of industry and other stakeholders from both developed and developing countries in the framing and execution of research agendas
- Education and training of students and increased participation of students, particularly from developing countries through student exchanges as well as modern technologies



## Objectives 2010

1. Strengthen the framework of Sustainability Science and identify its **epistemological pillars**, as well as discuss the **methodological aspects**.
2. Present **case studies** of trans-disciplinary research practices to address the complexity of human-nature interaction.
3. Assess and discuss the **current status of high education** in Sustainability Science with regard to diverse visions, approaches, and methodologies used.



## Objectives

4. Discuss the possibilities and challenges of an **effective collaboration among civil society, industry, policy makers and academia** for a transition towards sustainability.
5. Examine the central issues and challenges of global sustainability paying special attention to the **perspectives of the South**.
6. Identify specific and concrete activities and instruments to **consolidate the collaboration among research Institutions and Networks**.



## ICSS 2010: Summary of Sessions



**Session I:** From complex thinking to transformational change: epistemological and methodological challenges for sustainability science.

**Session II:** Solution-oriented/transdisciplinary research for sustainable development

**Session III:** Innovation for Sustainability

**Session IV:** Global sustainability governance

**Session V:** Sustainability science education

**Panel 1:** Industry and Academia for a transition towards sustainability

**Panel 2:** People to Science to People: experiences from civil society



# ICSS2010 ROME KEY OUTCOMES

## • Key lessons learned from Session 1

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- We do not need to develop new tools/methods for sustainability research and problem-solving – there are more than enough available. But we do need to conduct empirical methodological research – rigorously testing and reflecting on the methods for sustainability research and problem-solving!
- There is still a significant lack of rigor in applying transdisciplinary/participatory methods for sustainability research and problem-solving (no sufficient stakeholder engagement, no reflection on the timing and dynamics of stakeholder engagement, ambiguity of roles, etc.). We need a functional typology of transdisciplinary/participatory settings and a stronger willingness to build one's own capacity and apply this typology!
- There is a need for evaluative methods and evaluative knowledge about how successful our sustainability research and problem-solving actually are (do we solve sustainability problems?)!
- There are several institutional structures (extended peer review; promotion and tenure requirements; etc.) that need to be transformed in order to promote and stimulate sustainability research and problem-solving!
- Not only scientists but also the collaborating stakeholders hold epistemological and methodological assumptions about science in general and sustainability science in particular that need to be collectively considered, deliberated about, and transformed in order to enhance transacademic collaboration in sustainability research and problem-solving!



## ICSS2010 ROME KEY OUTCOMES

- **Key lessons learned from Innovation for Sustainability**
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  - Resilience - Society and natural system with resilience is important for the sustainable urban area. Innovation of technology and social system enable to develop such urban region is vital.
2. Quality of life - The evaluation criteria for the social system and technology is that whether they could contribute for the improvement of quality of life or not. However, there is no universal standard of quality of life.
3. North-South collaboration - In order to make change effectively at low cost, we need to have knowledge transfer as well as resources. Collaboration between growing south and shrinking north is necessary. ( Japan does not have money to make change of urban structure. We are thinking to received investment from China!).



## ICSS2010 ROME KEY OUTCOMES

- **Key lessons learned from Global Sustainability Governance**
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- Decisions for sustainability may involve value judgments and trade off decisions which have distributional implications for stakeholders, even though technological and social innovations sometimes produce win/win solution for stakeholders. Those aspects of value judgments and trade off related to decisions for sustainability need to be visualized in specific contexts.
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- Decisions for sustainability have various implications at global, regional and local levels as the recent discussion on REDD shows. Those implications need to be clarified including the implication to the indigenous people, for example. Decisions for sustainability have to be made based on the integrated assessment of decisions having impacts at various levels.
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- Technological choices and policy choices tend to be locked in and cannot adapt to the changing environment. Those choices need to be unlocked. New way of technology/ policy assessment or appraisal including various social aspects has to be invented to think over the alternatives and to visualize the judgment related to the technology and policy choices.



- Key messages from Session V: Education
- 1/ The importance of learning from past experiences – late lessons from early warnings. Illustrative examples are Minamata, mad cow disease, acid rain and so forth.
- 2/Education must give students a profound understanding of transdisciplinarity as well as practical training on how to practice it.
- An important challenge for all of us to work on:
- How do we develop the knowledge and skills of faculty? Sustainability science is a rapidly emerging field and there is a need to keep ahead of the development of the science and the practice of it.



- Panel II
- To enhance the listening skills as an act of humility, a first step for co-production.
- To experiment with a variety and a plurality of styles of research, going beyond science and society divides.
- To celebrate uncertainty and contradiction. To recognize that sustainability represents an extension of rights and a shift in the balance of power. As such, it comes with conflict and pain.



## Session VI

- Summarize the key lessons learned
- Figure out where the network will go in the future
- Focus on a plan for ICSS 2012



# Plan from now to 2012

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*Identify functional areas*

*Collaborative research projects*

*Overcoming barriers sustainability science*



## Actions for the future

- Consolidate Sustainability Science Network  
<http://www.infss.org/>
- Stimulate institutional reforms
- Academic initiatives (Summer Schools, Intensive courses etc)
- Creation of working groups on specific areas /topics of research
- Development of databases etc
- Organizing Publications
- Initiatives with the stakeholders (Dialogue and joint programme of work with Industry sector, next initiative at UNU in NY, October)