

Making Production-Consumption Systems Sustainable

Friday, 17 February 2006, 10:30 AM – 12:00 Noon

A session in the Sustainability and Resource Management track at the

American Association for the Advancement of Science (AAAS) Annual Meeting
16-20 February 2006 • St. Louis, Missouri, USA
http://php.aaas.org/meetings/MPE_01.php#892

Session Organizers:

Louis Lebel, Chiang Mai University, Thailand
Robert Kates, Independent Scholar, USA
Sylvia Lorek, Sustainable Europe Research Initiative, Germany

Session Participants:

Giok-ling Ooi (Speaker), Institute of Policy Studies, National University of Singapore
Globalization and Cultural and Environmental Change: The Potential and Limits of Sustainable Tourism

Michael Maniates (Speaker), Allegheny College
Voluntary Simplicity and Sustainable Energy: Emerging Opportunities for Social Mobilization

Giap Dao Huy (Speaker), Chiang Mai University, Thailand
Converging on the Leverage Points: Enabling Sustainability in the Shrimp Aquaculture Shrimp System

Kersty Hobson (Speaker), Australian National University
Political Ecology of Consumption and Urban Environmental Change in Asia-Pacific Cities

Synopsis:

Material and energy production-consumption systems are at the heart of most sustainability problems involving meeting human needs while preserving the life support systems of the planet. Can these systems be reorganized to make them more sustainable? A key issue is whether there are points of leverage through which modest investments in research and sharing of knowledge can lead to large gains in performance from the perspective of sustainability. Indeed, such a quest is one of the major research priorities

for an emerging sustainability science. This symposium draws upon an ongoing international collaboration between science, technology, and practitioner communities focused on transforming production-consumption systems. We will illustrate current opportunities and challenges through four contrasting case studies of production-consumption systems. The first on sustainable tourism in Southeast Asia explores sustainability issues in a sector that strongly depends on maintaining relatively high quality of some environmental services. The second looks at efforts to change the way in which energy is produced, distributed and consumed and analyzes the potential and limits of voluntary simplicity movements. The third case focuses on the impacts of research and development at various parts of the aquaculture-produced shrimp commodity chain on changing practices and policies, and their ultimate implications for sustainability. The final paper takes a critical and political look at household consumption and its influence on urban environments in the Asia-Pacific. Taken together the four cases studies illustrate the historical importance of research in helping understand and sometimes quantify linkages between production and consumption activities. Knowledge sharing and negotiation among practitioners from different parts of a production-consumption system, however, are critical for the insights to lead to collective changes in practices towards sustainability. Mobilization for system change unfolds in many ways. An analytical and action perspective that addresses production and consumption issues jointly holds substantial promise in negotiating practice changes that matter while acknowledging the multiple interests involved.

Presentations:

(1) The Political Ecology of Consumption in Urban Asia-Pacific

Presenter/Author:

Kersty Hobson, The Australian National University

Abstract:

Urban Asia-Pacific faces substantial environmental problems, which require innovative governance approaches. One newly emergent and promising policy strand is that of 'sustainable consumption'. Conceptually, this approach aims to reduce environmental degradation by encouraging all consumers to adopt more environmentally friendly modes of behaviour, especially those living in congested and environmentally degraded urban areas. Although a promising initiative, significant conceptual and practical problems exist with sustainable consumption's current policy framework. For example, its' focus on the conspicuous consumption practices of the 'new rich' excludes other forms of less conspicuous, but still highly environmentally damaging, consumption. However, rather than abandon the issue of consumption as a valid policy concern, its' import to addressing environmental issues in urban Asia-Pacific can be made more salient by adopting a 'political ecology' approach. Here, consumption reveals political, economic and cultural practices and modes of distributions that give rise to current unsustainable outcomes. Through in-depth examinations of current forms of consumption, this

approach aims to offer a challenging perspective for future research into Asia-Pacific urban environmental problems.

(2) Enabling Sustainability in the Shrimp Aquaculture System

Presenter:

Giap-Huy Dao

Authors:

Dao Huy Giap, Unit for Social and Environmental Research, Faculty of Social Sciences, Chiang Mai University
Louis Lebel, Unit for Social and Environmental Research, Faculty of Social Sciences, Chiang Mai University

Abstract:

Shrimp is still considered a luxury food even though consumption has expanded tremendously in the last two decades. Most aquaculture produced shrimp is grown in developing tropical countries and consumed in temperate industrialized countries. Consumption increases have been made possible by rapid expansion of aquaculture production to meet the demand and compensate for the declining wild production. Shrimp aquaculture is often seen as a way to help alleviate poverty in coastal regions as well as foreign exchange earnings in developing countries. Rapid expanding shrimp culture industry coupled with globalization and strict requirements for food safety has brought a high level of market pressure along the shrimp commodity chain. To become competitive, and maintain good reputation, producing countries need to develop better ways to ensure that customers are satisfied with products in its entirety chain.

Most of research and policy has focused at pond levels to improve its sustainability, and efficiency through code of conduct, standardization, and certification. Application of the research and policy through command and control approach has not been a success story, whereas, market based approach has proved to be effective in policy regulation. The market based approach on import restrictions has raised environmental and food safety awareness and changed practices of the entire chain from hatcheries, farmers and to import/exporters. Recent disputes on use of antibiotics and anti-dumping rulings renewed attention on leverage on production systems through import restrictions. In sum, this case study analyses and reveals the impacts of research and development at various parts of the aquaculture-produced shrimp commodity chain on changing practices and policies, and their ultimate implications for sustainability.