ABSTRACT

Sustainable humanosphere studies of ASEAN

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Abstract

As symbolized in the opening of ASEAN Center, Kyoto University, together with her domestic and international partners, has a strong will to further promote ASEAN studies. ASEAN studies are the studies to understand contemporary issues of ASEAN society in its particular context, to explore technical and institutional solutions suitable to environmental, socio-cultural, economic and political settings of ASEAN, and to formulate them as an alternative social development model for the global future. The scope of ASEAN studies are not limited to region making in terms of economy and governance, but have much wider perspectives including interactions between geosphere, biosphere and human society and coexistence of multiple culture, religion and ethnicity, reflecting vigorous and harsh nature and livelihood, social and cultural diversities of the region. This talk would like to propose to create an arena to exchange knowledge and idea of and to discuss on environment and society of ASEAN under the framework of sustainable humanosphere studies.

Keywords: sustainable humanosphere studies, ASEAN, social development model, geosphere, biosphere, human society

TRF-DSS as a platform to collaborate towards sustainable environment and society

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Abstract

To facilitate collaboration among farmers, researchers, and policy makers of agricultural systems to collectively improve performance with agrotechnology for sustainable environment and society, several research and development platforms have been implemented in Thailand. During 1977-1983, five national conferences were organized to report and exchange experiences gained under cropping system research concepts and practices. Cropping system research promotes collaboration among various discipline to jointly develop agrotechnology to improve crop performance. Farming system research concepts and framework was introduced and ten national conferences were organized during 1984-1996. Research teams were jointly characterized, designed, tested and diffused agrotechnologies by considering small-scale farm household settings. Concepts and practices to improve farm's performance were expanded to understand the interactions of biophysical and socio-economic components of agricultural systems. Since 2000, nine national agricultural systems conferences were organized to provide forum for farmers, policy makers, and researchers to interact and exchange understandings of implementing agrotechnology on an agricultural system. Decision Support System (DSS) research was introduced in Thailand in the early 1990s as a tool to visualize consequences of decisions to allocate resources to improve situation and performance of agricultural systems. DSS is an infotechnology consists of three main components, the database management, modelbase management, and the user interface. In 2007, The Thailand Research Fund established research and development network, hence TRF-DSS, to stimulate DSS tools development and deployment in various academic institutions. TRF-DSS network provides peer-support structure and process for members to adapt to changes using DSS tools and to collaboratively analyze and visualize 'what-if?' questions in allocating limited resources. In 2009, TRF-DSS funded five Lao, two Thai, and one Vietnamese individuals to pursue their Master and Doctoral degrees in Thai Universities. AEC or ASEAN Economic Community will be established in 2015 as a one vision, one identity and one community to create a competitive market of over 600 million people in ASEAN. TRF-DSS platform is a collaborative platform for stakeholders in ASEAN to apply DSS tools to increase efficiency of research and development through networking, systems analysis, development of database and agricultural system models and exploitation of the new agroinfotechnologies of the information age. Networking of key players promote efficient research to gain better understanding of interactions of society and environment. Understandings support the development of reliable database and models of the interactions, which improve management based on reasonable predictions of 'what-if?' questions in allocating resources to achieve sustainable environment and society.

*Keywords:*TRF-DSS platform, agroinfotechnologies, sustainable environment and society, Thailand

Urban ecology: research, education and practice

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Abstract

"The city represent the highest expression of man's technological development and cultural evolution." (Istock, Rees, and Stearns 1974)

City (urban) is a common word for every human and a common element for every life on earth. But underneath a common meaning, a critical element and path for life being and existence lay placidly. Through various interactions between human and the environment, the intrinsic perceptive and understanding is developed and varied in different place and time.

In different geographical region, climatic condition and landscape, the interactions between human and the environment appear differently. These interactions eventually become the relationships between human and the environment. These relationships set forth the foundation of the community to be built upon and evolved together through time in both constructive and destructive relationships. Via the advancement of technology, the environment, once dominating and uncontrollable has been tamed for socio-economic development and modernization. On the contrary, the attained results were not without negative consequences.

"The city represent the human pinnacle of human creative achievement. Yet, city also contains conditions ranging from the squalid to the barely habitable, where millions of people survive despite their environment. As an ecosystems – is in precarious state, dependent as they are on the outside world for their survival, with no built-in mechanisms for long term sustainability. It is an ecosystem in decay" (Goode 1990)

A young branch of ecological science, "Urban Ecology" represents an attempt to understand "the urban ecosystem" which plays a critical role in human's habitation and with a high expectation that a healthy-sustainable human habitat can be achieved. As a point of departure, this presentation is trying to present a brief sampling of theoretical framework, the building and transferring of the understanding and knowledge, and the transdisciplinary challenges in the integration of the knowledge in the planning and management of the processes of urbanization.

Goode, D. 1990: Introduction: A Green Renaisance, in Green cities: ecologically sound approaches to urban space / edited by David Gordon.

Istock, Conrad, Rees, W. and Stearns, F. 1974: Towards the urban ecosystem, in The urban ecosystem: a holistic approach / edited by Forest Stearns, Tom Montag

Keywords:Urban ecology, urban ecosystem, urbanization and sustainable human habitat

Over Troubled Waters of Kalicode:Building New Partnerships for Sustainable Development

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Abstract

The collaboration between Asian Public Intellectuals' Fellowship Program through its first regional project on "Community-based initiatives towards human-ecological balance" and Permeti Kali Code was akin to a bridge over the troubled waters of the Code River (Kali Code). While a populist Indonesian architect and a Catholic priest worked to transformed this former dumpsite located along the Kali Code to an artfully decorated living community, they still face the same basic problems of lack of clean, potable water and unhygienic sanitation system among others. This paper describes the Kali Code and its housing community and how a research project and a local non-government organization worked to build new partnerships for conservation and sustainable development.

*Keywords***:**Partnership building, human-ecological balance, sustainable development, Kali Code

Natural Resource Management in Modern Cambodia: Current Status and Challenges

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Abstract

Cambodia's economy is largely dependent on agriculture and natural resources, including forest, fisheries, water, land and mineral deposits. With a total population of about 14 million in 2008, approximately more than 80% of its population live in rural areas, making their living dependent on natural resources. About 60 percent of the country's total area is covered by forest, and most of its were given to private companies as forest concession and economic land concession with a total area of more than one million hectares for agri-business plantation or monoculture. Apart from forest and economic land concessions, RGC sets aside 25.5 percent of Cambodia's territory as a protected area for biodiversity in which access to these areas are prohibited. Fisheries provide 75% of animal protein source for daily livelihood of Cambodian people. Before May 2012, large fishing areas, estimated 1,000,000 ha were granted to private fishing concessionaries for commercial fishing exploitation. By that period, there has been a hot fishing conflict between fishing communities and private fishing concessionaires, leading to the demolition of fishing grounds under the commercial fishing concessions by government sub-decree and releasing for community use. Yet, the fishing conflicts continue and fishing communities are mostly affected, and the poor fishers are vulnerable, but the powerful are beneficial. About 82 hydropower dams have been planned and built in the Mekong and this contributes to the food insecurity for fishing communities. Due to lack of livelihood alternatives, fishing communities in the Mekong as well as in the Tonle Sap are concerned about how to make their living if the problems continue, and they are looking for the opportunities to raise their voices to stop the dams. While oil and gas in off-shore in the Tonle Sap Lake were reported as a wealth of the nation, fishing communities are also concerned about the impacts of oil and gas extraction on fishing. Furthermore, mining in Cambodia by foreign companies, particularly Chinese companies, is also widespread with little public knowledge. Most of mining companies have caused the conflicts with the community rights to land and natural resources. This paper discusses the current status of natural resource management in Cambodia and its challenges. These simply include the issues of each sector (forest, fisheries, water, land and mineral), and the management challenges such as institutions, legal framework, and impacts on local communities whose livelihoods are chiefly dependent upon the natural resources.

Keywords: Natural resource, natural resource management, forest, fisheries, land, water and mineral resources in Cambodia; management challenges

People and mangrove: In search of sustainable coastal resource management

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Abstract

The coastal areas generally have a great diversity of ecosystems associated with a complex array of natural resources that provide both economic good and services. Due to the large-scale amenity values of coastal ecosystems and resources, coastal areas are densely populated. The scale of human activities has increased over time, so that the pressures of human activities on natural ecosystems and coastal resources are large and multifarious, with clear implication to the loss of various natural resources and destruction of coastal ecosystems. Mangroves are considered one of the most productive ecosystems in coastal areas because they are located at the transition between the marine and terrestrial environments, have high nutrient input to the system, and host a high diversity of marine and terrestrial species. Mangroves are also important as natural barriers and sediment and carbon reserves. Due to its tangible and intangible benefits, mangroves have been damaged and threatened in an alarming rate in tropical and subtropical nations.Human settlement, expansion of agricultural or salt-making lands, development of coastal industries, and expansion of coastal aquaculture, have caused the damage of mangrove forests and their ecosystems.

This study addresses the ties between people and mangrove in order to search the sustainable coastal resource management by looking out various mangrove conservation and management initiatives, shrimp farming practices, coastal area development and local people livelihood in Pangasa Village, Sinjai District and BontoBahari village, Maros District of South Sulawesi, Indonesia. For comparative perspectives, this study also provides insights and knowledge with regard to ecotourism, on-site education, and the current condition of shrimp farming development in Thailand. The local people of Pangasa and BontoBaharihave successfully extended the mangrove restoration and conserved the coastal environment by planting mangroves of *Rhizophora sp* and *Avicennia sp*with their own initiatives and governmental supports. By planting such kind of mangroves, the local people could restore mangroves and rehabilitate coastal environment as well as obtain land property rights. Long-term economic benefits of mangroves are invitable for driving the people to self-mobilized in maintaning the mangroves for survivable societies. The local experiences of mangrove plantation in Pangasa and BontoBahari could be applied in overcomingthe global challenges of mangrove conservation and coastal resource management for the betterment of society and future earth.

Key words: mangrove restoration, human and nature dynamics, economic benefits, coastal resource management, Southeast Asia