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< CONTENTS >

● Articles

Peter Newman

Asian Coastal Cities: the Sustainable and the Unsustainable

Chamlong Poboon

Thailand's Coastal Cities: Planning for Sustainability

Melanie X. Guo and Dora Marinova

Population and Sustainability: is there Hope for Coastal China?

Hari Harsono Amir

Overview of Indonesia's Coastal Ecosystems: Efforts toward Sustainability

August Schlapfer and Dora Marinova

Tidal Swamp Development in Kalimantan

Zahari Zen, Peter Newman and Laura Stocker

Moving Toward Sustainability in Agro-forestry: The Case of Smallholder Rubber in Indonesia

Simad Saeed and David Annandale

Tourism and the Management of Environmental Impacts in the Republic of Maldives

John Webb

From Minamata to Green Chemistry: Implications for Policy Development for Coastal Zones

Kenneth Ruddle

The Role of Local Management and Knowledge Systems Small-Scale Fisheries: a Review of Major Issues and Research Needs in Asian Coastal Zones

Richard Tabor Greene

Establishing Customer Requirements in Multi-Sector Coastal Policy-making
Toward Global Quality Coastal Zones

Laura Stocker and Susan Moore

Community Involvement in Ocean Policy: Coastcare and the Establishment of Marine Protected Areas in Australia

村上 芳夫

Local Government and the Citizen in Coastal Zone Management -A Case Study of Reclamation in Hakata Bay, Japan

Richard T.A. Irving

Rural Depopulation and its Impact on the Structure and Organization of Nearshore Fisheries in Japan: A Case Study of Fishing Communities in Hirado, Kyushu

Kim Chi Tran

Community-Based Science for Coastal-Marine Pollution Monitoring: Toward Environmental Education and Policy

< ABSTRACTS >

● Articles

Author	ピーター・ニューマン Peter Newman Institute for Science and Technology Policy, Murdoch University (as of March 1, 1999)
Title	Asian Coastal Cities: the Sustainable and the Unsustainable
Abstract	Two types of Asian coastal city are emerging from the rapidly urbanizing processes of the region. The three wealthy cities of Singapore, from Hong Kong and Tokyo have invested much of their wealth in transit systems and built their cities around them. The seven newly industrializing cities of Bangkok, Jakarta, Surabaya, Manila, Kuala Lumpur, Seoul and Beijing have moved much more toward an automobile-based paradigm of development. The data on these two groups of cities indicate that the traffic problems of these latter cities are producing some of the worst urban environmental outcomes in the world, and they are showing little obvious economic benefit in a comparative sense on all indicators examined. The policy implication is that investment should prioritize electric rail options and, as the urban form of such cities is still oriented to dense corridors, the results in terms of economic and environmental performance could be quite dramatic.
Author	チャムローン・ポーブン Chamlong Poboon National Institute of Development Administration (NIDA) (as of March 1, 1999)
Title	Thailand's Coastal Cities: Planning for Sustainability
Abstract	The coastal cities and towns of Thailand are home to about one-third of the country's population. Nearly two-thirds of the urban population lives in these areas. They are also the focus of the country's economy. Yet coastal cities face many serious environmental problems. One classic example is Bangkok, the capital and the largest coastal city of Thailand, and which is notorious worldwide as a city of a traffic disaster. Worse, many other cities are following the same course. Although many "end-of-pipe" plans and projects have been proposed and implemented, they are not likely to yield a sustainable answer to the problems. Fortunately, there have been two recent and significant initiatives to introduce sustainable planning and management for the cities, based on the 1992 Earth Summit's Local Agenda 21. To move the cities and towns toward livability and sustainability, they have introduced the four key strategies: 1) preparation and implementation of planning procedures; 2) community participation; 3) awareness raising; and 4) the application of indicators. In addition to these initiatives, the Bangkok Metropolitan Administration has adopted the WHO's Healthy Cities concept, comprising 23 key indicators for the 11 pilot districts. In spite of these sensible attempts, it will take time to achieve the most appropriate and feasible strategies within the Thai context.
Author	メラニ・秀梅・郭 Melanie X. Guo Institute for Science and Technology Policy, Murdoch University (as of March 1, 1999) ドラ・マリノバ Dora Marinova Institute for Science and Technology Policy, Murdoch University (as of March 1, 1999)
Title	Population and Sustainability: is there Hope for Coastal China?
Abstract	In this paper we examine population changes and land management in coastal China (including the nine coastal provinces and the cities of Beijing, Tianjin and Shanghai) resulting from the one-child policy and the open-door economic development. We argue that population growth is not the major factor accounting for the loss of arable land; rather the main causes are industrialization and land degradation. The slowing down of population growth is the starting point for achieving sustainable development. If China fails soon to address its ecological problems, particularly on the coast, future generations will have to cope with the double burden of an aging population and environmental degradation.
Author	ハリー・ハラソノ・アミール Hari Harsono Amir Consultant (as of March 1, 1999)
Title	Overview of Indonesia's Coastal Ecosystems: Efforts toward Sustainability
Abstract	Indonesia has major coastal ecosystems such as coral reefs, seagrass meadows and mangrove forests. These resources support coastal community subsistence, enhance the natural beauty of the seas, have high biodiversity and are major tourism assets. There is enough information to confirm that only recently economic development and human activities have resulted in environmental degradation in coastal areas at a level that threatens the capacity of these coastal areas to support further economic development. It is therefore crucial to develop policy and implement action plans that incorporate the ecological principles that permit the sustainable use of the coastal areas and its resources for the benefit of the entire Indonesian population. The successful implementation of policy, plan and program to sustainably develop the coastal areas necessitates a new partnership among all key stakeholders in society to cooperate fully in protecting the coastal areas while meeting the needs and aspirations to enhance the quality of life of the people.
Author	アウグスト・シュラップファー August Schlapfer Institute for Science and Technology Policy, Murdoch University (as of March 1, 1999) ドラ・マリノバ Dora Marinova Institute for Science and Technology Policy, Murdoch University (as of March 1, 1999)
Title	Tidal Swamp Development in Kalimantan
Abstract	In this paper we discuss the impact of rice technology on the coastal peat swamp areas of Kalimantan, Indonesia. After the introduction of the Green Revolution rice technology and rehabilitation in the late-1960s, the Indonesian Government achieved rice self-sufficiency by 1984. However, since then, sprawling development projects on the island of Java in particular, have led to a shortage of rice paddies. By 1996, Indonesia was importing about 3 million tonnes of this staple food. Consequently, the Government was forced to look elsewhere for rice producing land. In January 1996 former President Suharto launched the Million-Hectare Sawah Project, attempting to convert peat swamplands in Kalimantan into rice fields. The problems associated with rice technology transfer and economic development by the Indonesian Government in Kalimantan are discussed in general and specifically in relation to the Sawah Project. The Indonesian Government has taken the approach of non-consultation and non-cooperation with traditional technology. This paper compares the approach of the Melayu merchants to swamp land development with the government technocrats, in an attempt to highlight the importance of adapting introduced technology to the local context, and consider traditional knowledge as a possible useful tool to sustainable development. It further argues that perhaps the technocrats' system of swampland use may prove to be an illusion, whereas the apparently more transient system of the Melayu merchants could prove to be more permanent.

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	ローラ・ストカー Laura Stocker
	Institute for Science and Technology Policy, Murdoch University (as of March 1, 1999)
Title	Moving Toward Sustainability in Agro-forestry: The Case of Smallholder Rubber in Indonesia
Abstract	The rubber industry in Indonesia is unsustainable because of such environmental problems as land clearing and degradation, loss of biodiversity, water and air pollution, and heavy resource use. Underlying these environmental problems are social and structural problems. These include the non-compliance of the rubber industry with government regulations; government development programs that have not succeeded because of a misfit between development strategies and the social concerns of "target" populations; and, most importantly, the low socio-economic status of smallholder rubber farmers. In this article we describe a set of strategies for developing the Indonesian rubber industry in a more sustainable way. Among the recommendations are: the deployment of new technologies, such as the mini-creper machines, for smallholders; the integration of "downstream" and "upstream" elements of the rubber industry through a partnership approach across the industry; and a strong policy role for the government in protecting the environment and reducing poverty. The government should also partly fund mixed replanting schemes to improve farming performance, and provide land title to prevent further destruction of the forest.
Author	シマド・サエド Simad Saeed
	Ministry of Home Affairs, Housing and Environment, Republic of Maldives (as of March 1, 1999)
	デヴィッド・アーナンヌデール David Annandale
	Murdoch University Perth Australia (as of March 1, 1999)
Title	Tourism and the Management of Environmental Impacts in the Republic of Maldives
Abstract	Radical economic restructuring and diversification rarely appears to have a positive or even neutral environmental impact. There are numerous examples of negative environmental impacts resulting from the changing economic structure of countries in the Asian region. In this article we examine an example of a significant economic shift within the economy of the Republic of Maldives. This small South Asian archipelagic state has undergone rapid economic change over the last 25 years, owing to the development and expansion of an entirely new tourist industry. Although this economic restructuring has not been without environmental challenges, the overall environmental impact has been relatively minor. Here we outline the development of the tourism industry in the Maldives, and indicate how strict, integrated Government regulation has adequately managed environmental impacts to date.
Author	ジョン・ウェブ John Webb
	Division of Science and Engineering, Murdoch University (as of March 1, 1999)
Title	From Minamata to Green Chemistry: Implications for Policy Development for Coastal Zones
Abstract	The paper present an analysis of the perspectives provided by chemical sciences of selected environmental processes at work in coastal zones. It is argued that these perspectives serve to inform the planning for the wise and sustainable development of such areas and ecosystems. In particular, instances are described that illustrate the processes within the environment of biotransformation, bioaccumulation and the use of bioindicators. Bioremediation is also outlined. The tragic exemplar of mercury poisoning at Minamata Bay, Japan is considered in some detail. The complex but conventional analysis of environmental consequences of pollutant production and release is contrasted with the more recent emergence of green chemistry, or environmentally benign chemistry, to prevent pollution at the source, that is, in the design and selection of chemical products and processes.
Author	ケネス・ラドル Kenneth Ruddle
	関西学院大学 総合政策学部 教授(1999年3月1日現在) Professor, School of Policy Studies, Kwansai Gakuin University (as of March 1, 1999)
Title	The Role of Local Management and Knowledge Systems in Small-Scale Fisheries: a Review of Major Issues and Research Needs in Asian Coastal Zones
Abstract	Impoverishment if not outright collapse of marine fisheries is now a worldwide phenomenon. The most highly publicized problems of contemporary fisheries management have occurred in the fisheries of Western industrialized countries. Yet the same biological and economic models responsible for those problems are still generally recommended for fisheries development and management in Third World contexts. Ironically, in many such societies there already exist or existed sophisticated traditional, community-based fisheries management systems, based on often encyclopedic systems of local knowledge, and well adapted for local use. Such traditional fisheries management systems have been documented throughout the world. They are especially rich in the Asia-Pacific Region, where they are generally highly regulated, common property regimes. In this article I summarize the main functions, characteristics and design principles of such systems and their local knowledge base, and describe their geographical distribution in Asia. In terms of the purpose of this seminar-workshop I then elaborate areas and topics of research that could form a basis for collaborative undertakings.

Author	リチャード・テイボア・グリーン Richard Tabor Greene 関西学院大学 総合政策学部 教授(1999年3月1日現在) Professor, School of Policy Studies, Kwansai Gakuin University (as of March 1, 1999)
Title	Establishing Customer Requirements in Multi-Sector Coastal Policy-making Toward Global Quality Coastal Zones
Abstract	<p>If you were asked could someone with a few methods and tools change the style, values, processes, practices, and investments of all major businesses everywhere in the world in 15 years, you would probably say "impossible!". However, this actually happened between 1980 and 1995; it was called the Total Quality Movement. This article explores whether the same tactical system used in that movement might similarly transform coastal zones all over the world in the next 15 years.</p> <p>Coastal zones are both vital to hundreds of millions of people and rapidly eroding as resource bases for people and animal life – the people are causing demise of the very resources they depend on. Many stakeholders are involved, though not with each other directly. Most of these stakeholders neither handle future effects of present actions nor other stakeholder responses to their present actions. The question then arises of how to get to do so.</p> <p>This article presents customer requirements gathering as a powerful, viable and proven technique for resolving stakeholder conflicts and refusals of future effects. Customer requirements gathering is a principal technique of two movements—the total quality and global quality movements—both of which offer other tools directly resolving coastal zone policy issues. This article presents the systems science basis of coastal zone "linkage" problems among stakeholders and the two movements, total and global quality. Twenty-one problems in coastal zone policy-making possibly handled well by tools from these two movements are examined briefly. Then detailed examination of the role of gathering customer requirements in handling coastal zone problems is made: the concept of customer, the role of customer requirements in resolving stakeholder conflicts, what customers of policies require of them, what businesses know about customer requirements gathering, what beyond gathering such requirements is needed, implementing customer requirements gathering in coastal zones. The article closes with a broader examination of global quality tools in general applied to coastal zone issues: changing commonsense as definition of policy victory, a sequence of quality tools which create kinds of modesty needed for further change, Japanese policy problems that resemble coastal zone problems and were solved by quality tools, handling the cognitive deficits of poverty using quality tools, examples of policy applications of such tools, and comparison of global quality with other coastal zone policy-problem solution approaches.</p>
Author	ローラ・ストカー Laura Stocker Institute for Science and Technology Policy, Murdoch University (as of March 1, 1999) スーザン・モール Susan Moore Lecturer, Division of Science and Engineering, School of Environmental Science, Murdoch University (as of March 1, 1999)
Title	Community Involvement in Ocean Policy: Coastcare and the Establishment of Marine Protected Areas in Australia
Abstract	<p>In the last decade, Australia's marine and coastal policy-makers have sought to involve both the broad community and specific stakeholders in the development of policy for the marine and coastal environments, and in the stewardship of these environments. Such community involvement can lead to capacity-building within agencies, stakeholder groups and the community at large. In this paper we review the recent history of marine and coastal policies in Australia and, using specific examples, show that five elements of capacity-building, namely integrative place-making, collaborative policy-making, inclusive stakeholder involvement, and building relational resources, have emerged to some extent in Australian coastal and marine policies of the 1990s. We suggest that opportunities exist for developing these elements further, and that the process of collaborative learning is one way to help achieve this.</p>
Author	村上 芳夫 Yoshio Murakami 関西学院大学 総合政策学部 教授(1999年3月1日現在) Professor, School of Policy Studies, Kwansai Gakuin University (as of March 1, 1999)
Title	Local Government and the Citizen in Coastal Zone Management –A Case Study of Reclamation in Hakata Bay, Japan
Abstract	<p>The purpose of coastal zone management is the sustainable and wise use of the coastal zone and its resources. In many developed countries ocean or coastal zone policies include the provision for citizen participation in the policy-making process, in addition to the more usual restrictions and regulations regarding environmental protection. In Japan, however, based on the experiences of public nuisance in 1960s, government regulates sources of pollution but does not respect citizen participation.</p> <p>Since the 1980s, the growth of production and the technological innovation has resulted in large amounts of industrial and household waste, and has led to new pollution and destruction of environment through both the private and public sector activities. In some ways it may be said that the public sector brought about the environmental destruction by ignoring citizens' opinions. This is especially true regarding coastal reclamation, which has resulted in the disappearance of wetlands and natural coastlines. In this article, I demonstrate many procedural defects in public sector coastal reclamation activities in Japan, using Hakata Bay, Fukuoka Prefecture, as an example.</p>
Author	リチャード T. A. アービング Richard T.A. Irving 関西学院大学 総合政策学部 教授(1999年3月1日現在) Professor, School of Policy Studies, Kwansai Gakuin University (as of March 1, 1999)
Title	Rural Depopulation and its Impact on the Structure and Organization of Nearshore Fisheries in Japan: A Case Study of Fishing Communities in Hirado, Kyushu
Abstract	<p>The establishment and evolution of a system of territorial management and 'ownership' of Japanese nearshore sea areas has been well documented (e.g. Kalland, 1981; Ruddle, 1984). The rights to fish such areas are administered by local Fisheries Co-operative Associations (FCAs), comprising elected members from the nearby fishing community. This 'community' may include fishermen living in a single town or village or, perhaps more commonly, those living in a number of small fishing villages stretched out along a clearly defined geographical feature such as a bay or headland. Drawing upon knowledge of local sea conditions, acquired over many centuries, it is one of the functions of FCAs to regulate fishing activity to ensure that sustainability of marine resources within their jurisdictions is maintained. It has been suggested that this system in Japan, of essentially 'village', or community based tenurial control of nearshore sea areas be used as a model for marine resource management in other parts of Asia and Oceania. However, the system as it exists in Japan today faces one the greatest challenges ever to its ability to continue functioning. The rural exodus of young people in the 1960s left many fishery operators without a successor in place to 'take over' operations when 'the time was right'. Whether 'right' or not, the time has now come when fishery operators are being forced to give up because of old age. The decline in numbers of fishery operators means that changes in the spatial and possibly functional structure of FCAs will have to be made. This in turn may have a negative impact on the future sustainability of aquatic resource management in Japanese nearshore waters.</p>

Author	キム・チ・トラン Kim Chi Tran 関西学院大学 総合政策学部 助教授(1999年3月1日現在) Associate Professor, School of Policy Studies, Kwasei Gakuin University (as of March 1, 1999)
Title	Community-Based Science for Coastal-Marine Pollution Monitoring: Toward Environmental Education and Policy
Abstract	<p>Coastal-marine pollution is a widespread phenomenon owing to unsustainable development in both coastal zones and upland areas. It causes serious impacts on biological productivity, habitability and public health, leading to large economic loss. Many solutions have been attempted to solve the pollution issues, but often the lack of public awareness and participation is a contributing factor for the failure of pollution management. Most scientific or engineering techniques for pollution monitoring and control are sophisticated and costly. Therefore, the development of simple techniques for local community, especially in developing countries, to monitor coastal pollution, is of great importance.</p> <p>In this paper, a simple methodology for monitoring of some coastal-marine pollution issues is presented. Some aspects of environmental education, public awareness and policy are discussed. A national program on coastal pollution monitoring in Vietnam is proposed.</p>