

Ecological Footprint for Taiwan, 2004 - Applicability of a Novel Estimation Method -

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An increasing number of governmental entities, organizations and communities perform Ecological Footprint (EF) analysis for evaluating sustainable development practices. However, various approaches have produced fragmented and divergent EF results. To approach the uniform global standard and to accurately reflect the actual footprints, this study adopts the EF estimation technique developed recently by Wackernagel et al. and published by the Global Footprint Network (GFN) to calculate Taiwan's EF in 2004.

This study is, to our knowledge, the first to identify footprint pressure caused by CO₂ emissions in Taiwan. In 2004, Taiwan's EF per person was 6.718 global hectares (gha), and the total EF was 42 times of Taiwan's land area, of which the CO₂ footprint per person was 2.295 gha. This CO₂ footprint means that 14 areas the size of Taiwan completely filled with trees are needed to absorb the CO₂ generated in Taiwan. The CO₂ footprint analysis can identify the seriousness of the CO₂ problem and make it easily understood by the public.

Does a Conflict in Local Efforts toward Sustainable City Cause NIMBY Syndrome? - What We Learned from Environmental Disputes over Wind Farm Siting in Japan-

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To take measures against global warming and to make cities sustainable, many renewable energy facilities are being introduced in Japan over the recent years. Siting wind farm, which contains numerous wind power turbines, is one of the most dominant measures at present. However, rapid introduction of these wind farms often causes environmental disputes that address global warming and the preservation of the local environment, including ecosystems and landscapes. While examining institutional issues and understanding public attitudes is an effective ways to avoid potential disputes, few studies have been conducted on this topic in Japan. This paper explores some effective ways to resolve environmental disputes (i) by clarifying the institutional issues in the decision-making process through a comparative case study and (ii) by clarifying the psychological issues of the public living close to wind farms in host communities, through a questionnaire.

The case study on two cases yielding contrasting results suggests the significance of agenda setting in a formal process. Inputs for agenda setting from the integration of local and expert knowledge through the informal process are also important. The main findings from the questionnaire data analysis are summarized as follows. First, although landscape should be addressed seriously, it is not the most significant issue, since communicating specific concerns and expectations to the public is more important. Second, the silent majority "observer/commenter" accounts for around 40%. Some of them might oppose wind farm projects if local environment conservation is not addressed. Therefore, communicating with such people is critical for further installations.

Comprehensive Planning for Taoyuan City, Taiwan -Integrating Sustainability Fixity and Regional Governance

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Cities worldwide have faced global economic restructuring for quite some time. Within the effect of global-local relationships, they have inevitably integrated globalization into networks of urban competition. Furthermore, balancing

urban ecology, equity and economy, i.e., the three basic dimensions of sustainable development, explains the necessity for cities to achieve sustainable and healthy urban development.

Conversely, comprehensive planning is a conventional approach that cities use to develop guidelines in moving towards integrated urban development. In the era of sustainable development and in light of urban competition, integrating sustainable development concepts and regional governance into comprehensive planning is a significant challenge for urban planners.

This study first examines how sustainable development and regional governance affect comprehensive planning. Second, these concepts are integrated using a holistic approach. Finally, Taoyuan City, Taiwan, is adopted as a case study to explore the feasibility of integrating sustainability and regional governance into comprehensive planning contexts.

Retrospect and Prospect of Ecological Land Use Planning in Taiwan

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Base on the enactment of major laws and policies (action plans), the stages of development of Taiwan's resource conservation efforts can be divided into four stages: Embryonic stage (1970's), single resource conservation stage (1980's), the passive national land conservation Stage (1990's), and the active territory restoration stage (Post 2000). Sustainable Development has been globally recognized as the main goal of land use planning and resource conservation. While a retrospective look at land use planning and the conservation history in Taiwan shows us the following topics and specifics of resource conservation. From an awareness of resource conservation, to policy and regulation making, and finally to implementation takes a long time. Current zoning system lack of flexibility and incentive for conservation, therefore the efficacy of resource conservation is heavily dependent on the effective use of environmental impact assessment and good public land management. Unsustainable policies have been the key factor behind the unsustainable utilization of resources. To rectify past unsustainable policies on development, firstly, to establish proper guiding principles and indicators for sustainable land use in order to direct future spatial planning and development. Secondly, there is a need to establish a more equitable market mechanism for the development and beneficial allocation of land. Thirdly, there is a need to promote more participatory mechanisms of governance to improve the deficiencies in proxy administration and rent-seeking. Fourthly, it can be suggested that there is a requirement to strengthen the inventory and information system currently available on land resources in Taiwan.