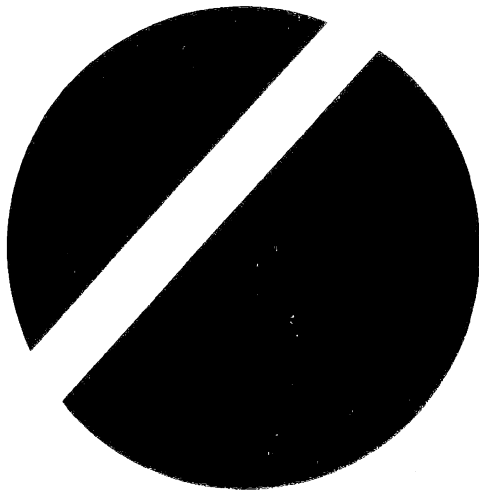


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“AGRICULTURAL” LANDSCAPE: ITS MEANING, CONSERVATION AND UTILIZATION

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ABSTRACT

The benefits of nature cover useful goods and services provided by the ecosystem. This paper gives special attention to impressions, inspiration and the healing aspects that services from nature provide or to the multiple functions of agriculture and forestry. Agriculture is presented from the viewpoint of landscape and focuses on the versatile functions of agriculture, where agriculture is presented as an industry, the farmland as the environment and farmers serving as human resources. In addition, rural families serve as home education systems and rural areas as community systems.

The “hyakusho’s design” presents the farmers’ wisdom that created agricultural landscape through the method of rural landscape design. Its main features and various examples are discussed further in depth. Japanese gardens emphasize the coexistence of nature and the environment, thus creating an aesthetic landscape which imparts spirituality.

A historical account of agricultural landscape is presented showing the evolution of the concept in Japan and Southeast Asia. This reflects three types of symbiosis, namely 1) human activities and biological nature, 2) substances, resources and energy and 3) symbiosis of various area-types, such as cities, rural areas, industrial and developing countries. It is emphasized that we should strive to realize these three symbiotic relationships at the same time through integration of our activities, thus learning the true essence of agricultural landscape.

Key words: hyakusho, landscape awareness, eyes of landscape, wisdom of landscape, Japanese garden

THE FUNCTIONS OF FORESTS IN LIFE AND AGRICULTURE IN SOUTHEAST ASIA

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ABSTRACT

Forests in Southeast Asia have traditionally been viewed as natural resources that generate wealth through timber extraction. Old paradigms of economic development in these countries have threatened the existence of the tropical forests in the region, a situation that is aggravated by the global march to globalization and a rapidly expanding population. As forest areas diminish, the impacts of their loss are becoming more and more strongly felt not only at a national or regional scale, but globally as well. New roles other than economic are being recognized such as the provision of water for household consumption, irrigation and the process industries, crop protection, biodiversity and genetic resources conservation, amelioration of the environment and climate change mitigation, as well as meeting demands for nature-based and outdoor recreational services. Southeast Asian countries struggle to attain a balance between forestry and agriculture, heretofore considered as competing with each other for scarce land resources. This paper describes the newly evolving models for co-existence of forestry and agriculture in selected ASEAN countries, particularly the Philippines, the extent by which they have succeeded, and the threats and limitations or challenges being met.

Key words: tropical forests, socio-economic functions, ecological functions, deforestation, agroforestry

**GREEN TOURISM AND AGRICULTURE IN SOUTHEAST ASIA:
THE CASE OF MALAYSIA: AGRICULTURE AS A TOURISM ASSET**

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ABSTRACT

As the economic structure of nations changes, the role of agriculture in the development of the economy and social welfare has also changed, and in many instances, has decreased. However, changes in consumer preferences, consumption abilities, environmental awareness and infrastructural development have opened up avenues for agriculture to continue its contribution to society in a different form. Agriculture is a tourism asset; a simple model is suggested to show the symbiotic relationship of agriculture and tourism. Access to the agricultural resources through infrastructural development would increase the tourism value of agriculture.

Key words: tourism value, static model, dynamic model

REHABILITATION TECHNIQUES FOR DEGRADED, IRRIGATED SOIL IN ARID LANDS

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ABSTRACT

Irrigated agriculture in arid land, which is supposed to be one of the main artificial factors which increases soil degradation, has played an important role in food production in ancient civilization for over four millenniums, and it will become the most powerful scheme to sustain the world population in further decades. The study sought to clarify main factors of soil degradation due to irrigation and to discuss soil rehabilitation using recycled materials for sustainable agriculture in the Mu Us Shamo Desert of northwestern China, three provinces in southwestern Iran and three countries (Niger, Ghana and Kenya) of the Sahel region in Africa. Results are summarized as follows: 1) sustainable use of irrigation water is necessary in order to maintain the groundwater resources in Mu Us Shamo Desert, in the river resources of the three Provinces of Iran and in rainfall resources in the Sahel region; 2) proper soil and water managements for groundwater and rivers is essential to prevent secondary salinization; 3) monitoring water resources and water quality is an important procedure to prevent soil salinization in irrigated fields; 4) irrigation schedules for tank irrigation with rainwater harvest are discussed to prevent soil erosion by water as well as lack of water in the Sahel region; 5) main soil degradation processes are classified into soil erosion by wind and/or water, and soil salinization through analysis of meteorological factors; and 6) introduction of artificial zeolite, a product of recycled materials under laboratory conditions, to rehabilitate soil degradation.

Key words: soil salinization, soil erosion by wind and/or water, tank irrigation, artificial zeolite

**NEW ROLES OF AGRICULTURE AND ECONOMIC EVALUATION ON
MULTIFUNCTIONALITY IN ASEAN COUNTRIES**

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ABSTRACT

Agricultural activities do not only provide market goods, which are sold as food and fiber but also supply non-market goods called “multifunctionality” of agriculture. This paper describes the economic concept of multifunctionality, economic valuation methods on multifunctionality and evaluation of the multifunctional roles of agriculture in Japan and ASEAN countries. In the context of Japan’s agriculture, eight multifunctional roles of agriculture were identified and evaluated by using a cost based method. Commenced in the year 2000, ASEAN-Japan project on multifunctionality of paddy farming collaborates to deepen the understanding of the multifunctional roles of agriculture. This paper focuses on two case studies and illustrates the multifunctionality of the Ifugao rice terraces in the Philippines, the Red Delta Region in Vietnam and the estimation of their values.

Key words: contingent valuation, cost based method

**FACTORS AFFECTING FARMERS IN ADOPTING LOW-INPUT RICE
FARMING SYSTEM IN TEMPURAN SUB-DISTRICT,
KARAWANG, INDONESIA**

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ABSTRACT

This study sought to compare the economic performance of low-input and conventional rice farming systems and to identify and analyze the factors affecting farmer adoption of low-input rice production systems in Tempuran Sub-district, Karawang, West Java Province, Indonesia. Thirty one farmers of each category of conventional and low-input rice production systems were surveyed.

Results of this study indicate that, first, low-input rice farming system results in a 20% lower yield and uses 43% to 95% lower inputs than those of conventional farming system. However, net incomes resulting from this system are not significantly different than those of conventional one. Second, both the probit and logit models consistently indicate that total costs of labor, land area and IPM courses, are the most important factors in affecting farmers' decisions to adopt low-input rice farming system. The results also indicate that, due to unavailability of cash money, the rice farming system which involve the least total costs of labor will be considered first by the farmers.

Key words: conventional rice systems, income analysis, adoption, binary-choice models: linear probability, probit and logit models

VARIATION OF VAC SYSTEMS AND CHARACTERISTICS OF HOME GARDENS OBSERVED IN NORTHERN VIETNAM

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ABSTRACT

The variation of VAC (*Voun Ao Chuong*) patterns of 5 farmers in the northern part of Vietnam was investigated in the summer season of 2001, focusing on the characteristics of the home garden. Even among 5 farmers, a variety of VAC types was observed, indicating a different decision making process to gain cash income. In intensive fruit production, the key factors appear to be maintenance of an appropriate plant density through adjustment of a suitable leaf-fruit balance by pruning, together with bud grafting technique in order to introduce new varieties quickly.

Key words: home garden, fruit production, planting density, VAC, Vietnam

**FACTORS AFFECTING TECHNICAL EFFICIENCY OF HOUSEHOLD
DAIRY CATTLE PRODUCTION IN TWO COMMUNES OF
GIALAM DISTRICT, HANOI**

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ABSTRACT

This study was conducted in Phudong and Trungmau, Gialam district, Hanoi to determine technical efficiency (TE) of household dairy cattle production and factors affecting TE. A total of 148 respondents was taken proportionately based on the population of each village. Data were gathered through individual and focused interviews, and also from secondary sources of information. The Frontier production function model was used to measure TE of household dairy cattle production. Multiple regression analysis was used to determine the relative effect/contribution of the significantly associated factors as determinants of TE. Results showed that the technical efficiency of household dairy cattle production was 0.825 in average of two villages. Results also showed that educational attainment, annual family gross income, farm experience, attitudes towards technology, training courses, credit support, extension services, functions and incentives of the dairy cattle farmers association were major variables that influenced technical efficiency of members in dairy cattle production in both villages.

Key words: educational attainment, experience, family income, credit, training, extension services
