POVERTY-ENVIRONMENT LINKS IN THE PHILIPPINES

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Abstract

Past policy studies to reduce rural poverty in the developing countries have focused much attention to the issue of increasing food production and expanding economic growth but little attention to the issue of constraints imposed by degradation of agricultural land resources and the effects of expanding urban economy on rural development. Only in recent years have we seen increasing attention to the relationship between rural poverty and environment. Inquiry is, however, often done by simplistic one way causal relationship which, although often illuminating, does not provide a comprehensive understanding of the different interacting processes that create rural poverty and land degradation. Many of the analyses of poverty-environment relationships view that poverty is the cause of environmental destruction. The common assumption takes the poor to be ignorant and short-sighted 'slash-and-burn' agriculturists, wrecking destruction on the environment. Others would consider population growth resulting from poverty to be reinforcing environmental destruction. In the process of destroying the environment, the poor people also become the victims of environmental degradation.

This paper proposes a holistic framework of analyzing the interrelationships between poverty and land degradation in developing countries, particularly the Philippines. It extends the income distribution model of Saeed (1988) to the processes affecting land quality within the agricultural system and to the processes affecting rural-urban interaction. The latter processes incorporate the dynamics of growth in the urban sector, the rural-urban flows of income and resources, and the factors affecting the demands for agricultural and non-agricultural production. This framework provides understanding of the increasing rural poverty and land degradation in the Philippines amidst the general increase in income per capita and, therefore, an informed policy agenda to alleviate both problems of rural poverty and land degradation.

In order to understand the behavior of the model, simulation experiments are organized as follows. The end equilibrium conditions of the income distribution model of Saeed (1988) under constant economy assumptions are taken as the initial conditions for the extended model when population growth and feedbacks between the changes in the quality of agricultural resource base and the rural economy are incorporated (*see Fig. 1*). At this stage, however, the feedbacks between the rural and urban economy are not yet activated. Urban economy is then coupled with the extended model containing the dynamics of change in the quality of agricultural land resources. The results show a crop pattern where land is largely owned by the big landlords but cultivated by the peasants, a distribution of income that accrues mostly to the big landlords, and a degradation of agricultural resource (*see Fig. 2*). The complete model is then used to investigate past policies to improve the economic and environment conditions in the rural sector. A greater understanding of the dynamics of change in a rural economy obtained from these different policy runs allows the suggestion of combination of policies to improve rural poverty and quality of agricultural land resources. These include taxing rent income, promoting growth such as introduction of modern equipments and high-yielding varieties, providing direct help to the rural poor, reducing population growth, and introducing incentives to increase investments in land improvement and conservation measures (*see Fig. 3*).

Reference:

Saeed, Khalid. 1988. Wage Determination, Income Distribution, and the Design of Change. *Behavioral Science*. 33:161-186.

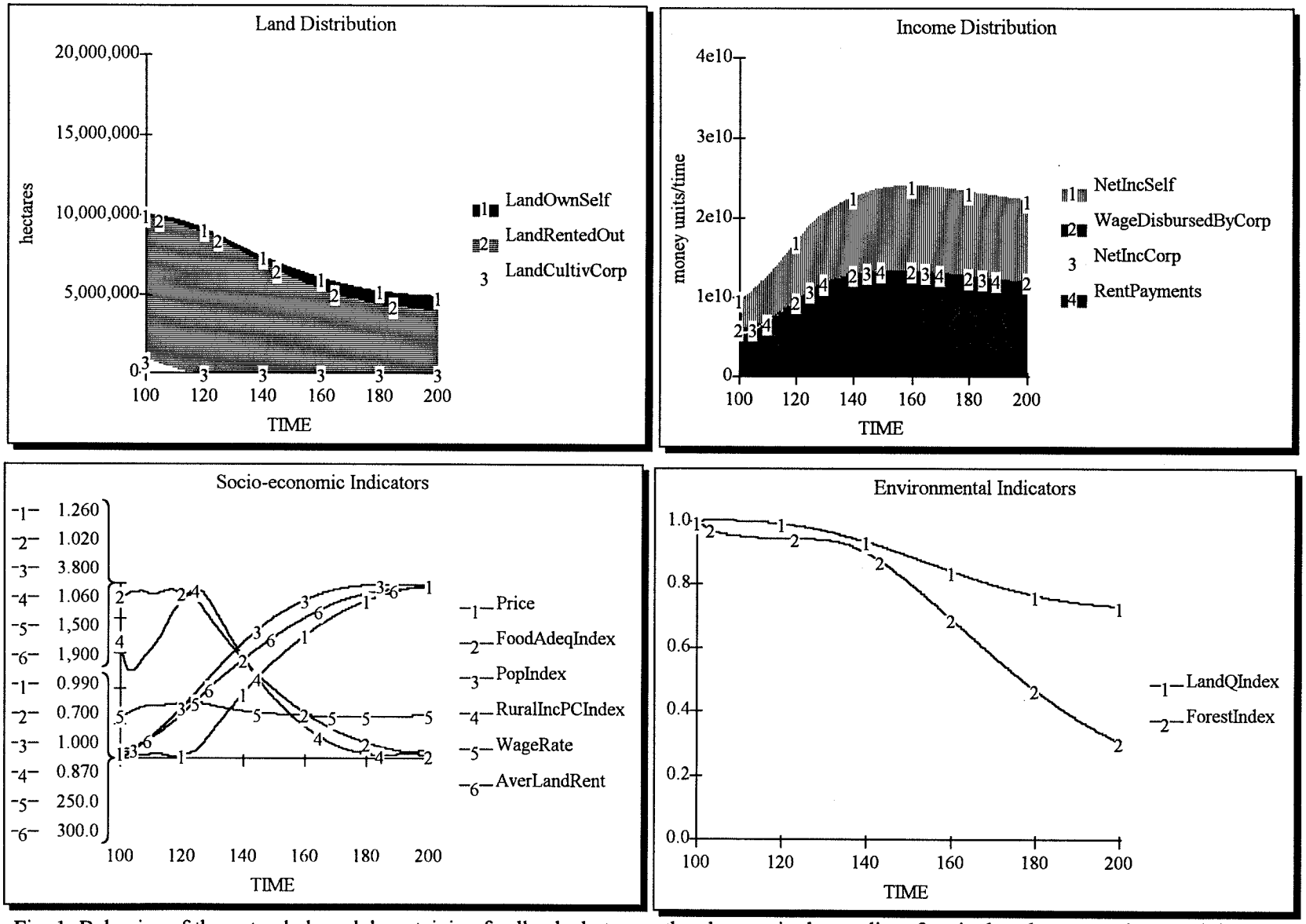

Fig. 1. Behavior of the extended model containing feedbacks between the changes in the quality of agricultural resource base and the rural economy.

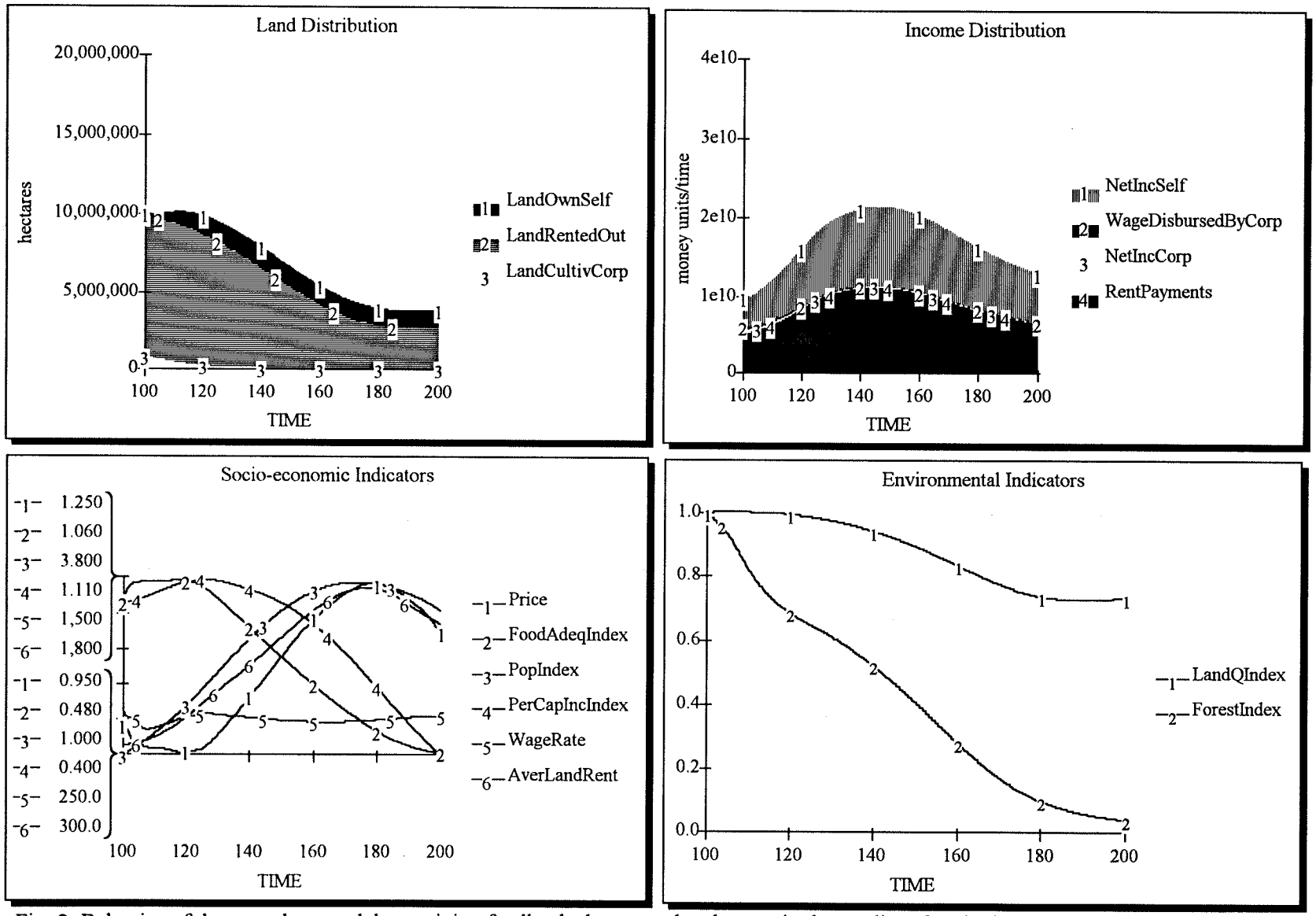

Fig. 2. Behavior of the complete model containing feedbacks between the changes in the quality of agricultural resource base, the rural economy, and the urban economy.

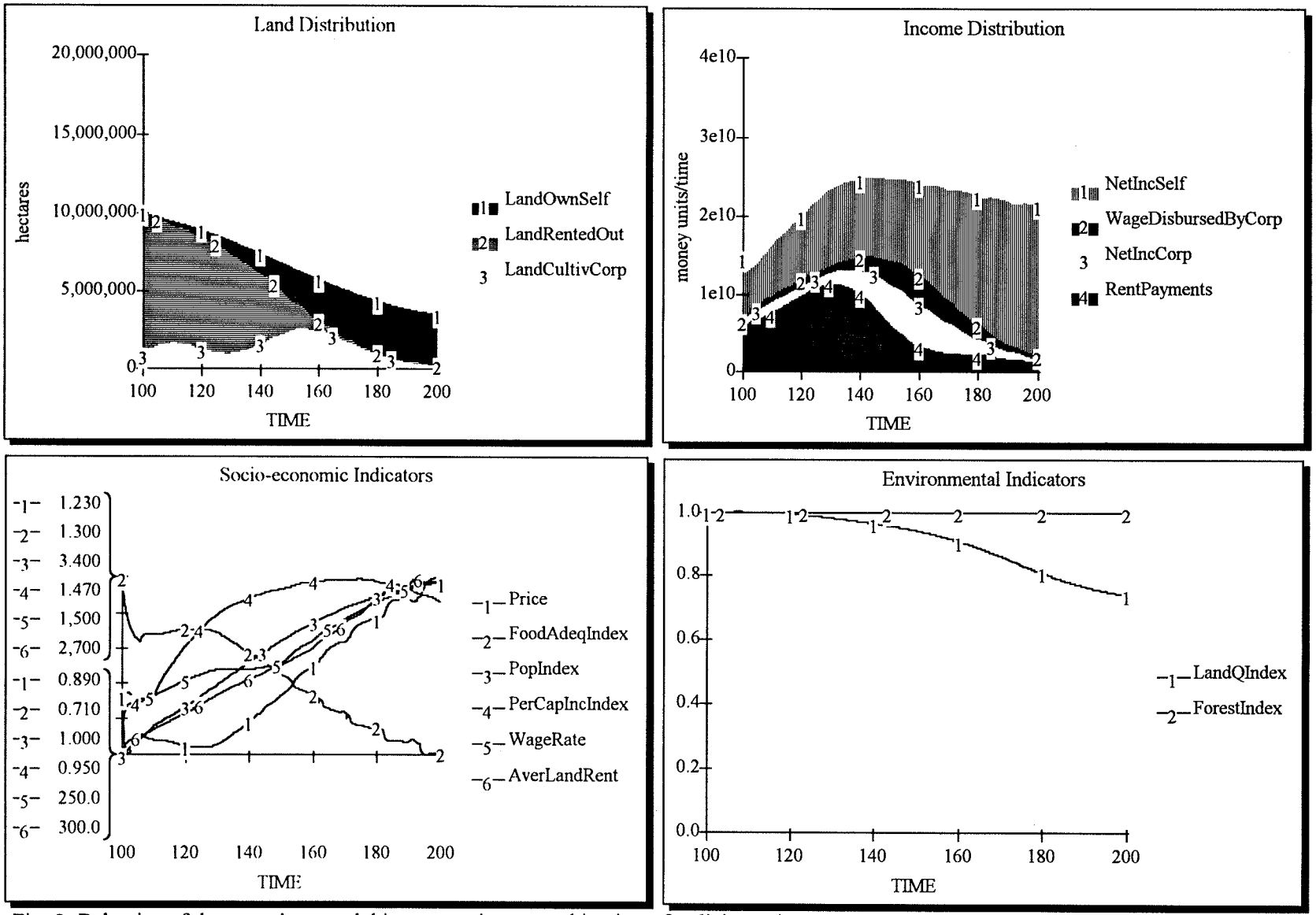

Fig. 3. Behavior of the complete model incorporating a combination of policies to improve rural poverty and quality of agricultural land resource base.