Innovation and Tenant Survival: Brackishwater Pond Culture in Java*

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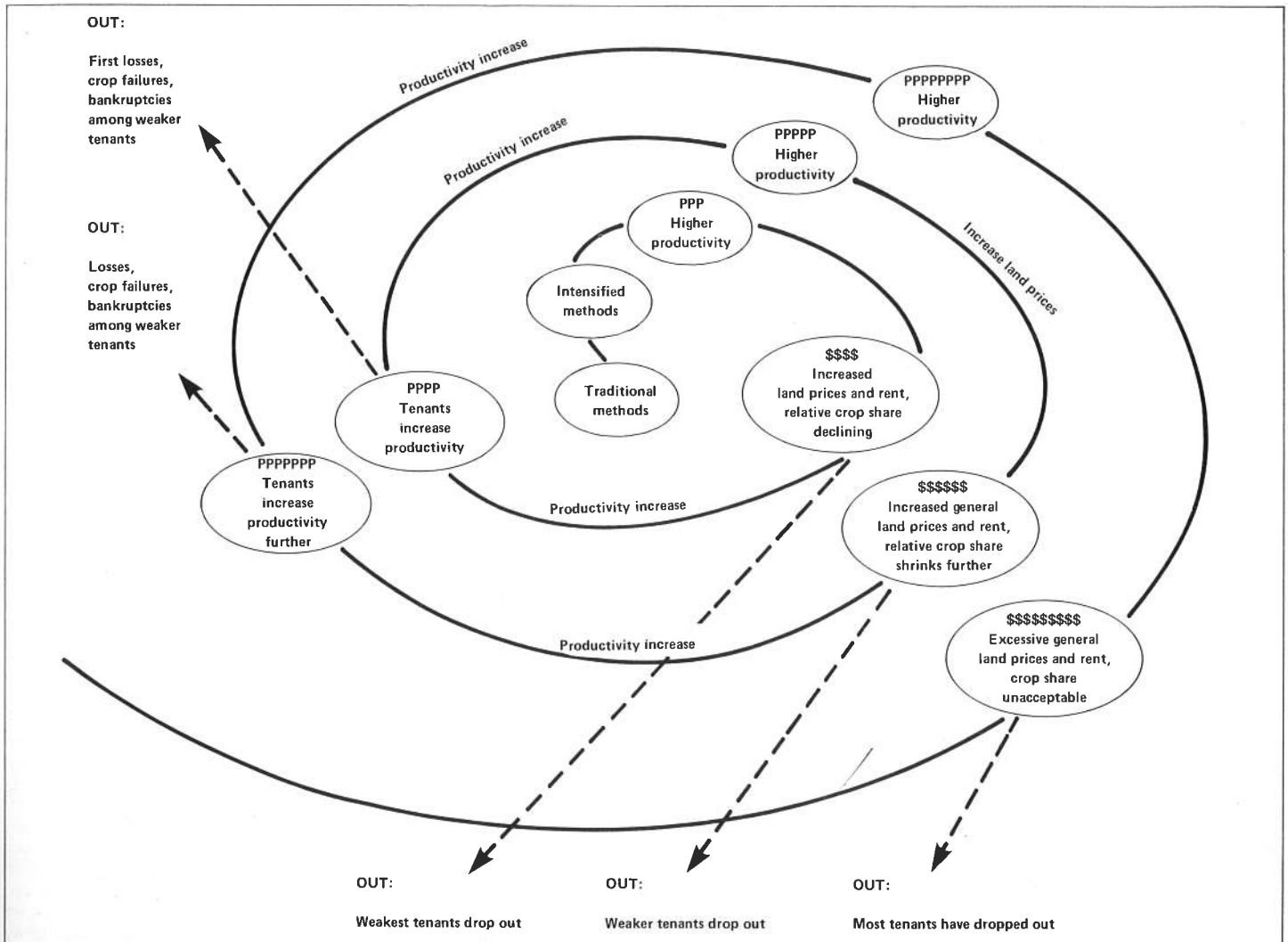
Confronted with an extraordinarily high dependence on oil and gas exports in its foreign trade balance, the Indonesian Government pushes for the rapid development of other potential exports. A promising one is shrimp cultured in brackishwater ponds; in fact, the government already launched various brackishwater pond intensification programs.

From a purely economic point of view, the first two programs, (one of them was financed by the International Development Association or IDA) have been a remarkable success. Shrimp production in brackishwater ponds increased from 15,000 t in 1976 to 32,000 t in 1982 (but decreased to 27,595 t in 1983). But in

*This article is based on some selected findings from field investigations in 1984/85 in Java. For a comprehensive analysis of this issue, see: W. Hannig. 1986. *Towards a Blue Revolution. A Study on Socio-Economic Aspects of Brackishwater Pond Cultivation in Java*. Sociology of Development Research Centre, University of Bielefeld, West Germany. Ph.D. dissertation.



A vicious spiral: If larger sharecroppers succeed in intensifying production, landowners may dictate stiffer regulations requiring them to further intensify production leading to worse tenancy conditions and so forth.

terms of improved equity, a major development goal stressed in every Indonesian Five-Year Plan, it is not so clear whether these programs have been as successful.

The most striking and decisive regulation within both programs was the exclusion of small-holders from any intensification efforts. Only pond owners with more than 2 ha qualified for intensification schemes. Tenants could not apply, even if they were cultivating large pieces of land. The two programs proved to be appropriate only for middle-size and large pond owners, who eagerly accepted the program conditions and most of whom succeeded in increasing both pond productivity and net returns.

Higher net returns immediately caused higher selling prices for ponds, and, more importantly, higher rent and tougher sharecropping conditions for tenants, even for those who happen to be cultivating ponds with low productivity, in a generally highly productive area.

In recent years, due to an exceptionally high demand for brackishwater ponds in highly productive areas, pond owners were put in a position to dictate exaggerated conditions for sale and rent, often no longer based on real present net returns, but on a hypothetical pond potential. Tenants have to reach this potential if they do not want to face declining real net returns, or even losses. Small sharecroppers have been the first to be pushed out of business because they could neither live on lower net returns, obtain the assets to enable them to intensify production, nor apply for the available pond intensification programs.

Larger sharecroppers may, of course, try to intensify production with their own assets, but then they face a vicious spiral: In case they are successful, landowners may dictate even more exaggerated sharecropping regulations requiring them to further intensify production, leading to worse tenancy conditions, and so forth. Most sharecroppers will therefore reject intensification and, given the opportunity, would rather flee to areas with lower productivity but with acceptable sharecropping agreements.

Others who have run through two or three progressive intensification stages realize sooner or later that they cannot bear the increasingly high production risk since even semi-intensive shrimp production requires fairly sophisticated methods and technical knowhow. Furthermore, sharecropping agreements in Java are almost never written, and sometimes pond owners indeed reclaim their ponds after the sharecroppers have already improved the physical pond conditions.

But sharecropping agreements are likely to gradually vanish anyway since sharecroppers are handicapped vis-a-vis lessees when negotiating with pond owners. Most pond owners prefer cash rent agreements requiring advance payments because these enable owners to pass on all production risks to the lessee. In sharecropping, however, not only profits are shared, but risks as well. Thus lessees -- especially the richer ones -- will probably have a longer and firmer stand in the brackishwater pond business. But this will not necessarily spare them from the vicious spiral of higher productivity and higher cash rents, and perhaps heavy losses, since they bear the entire economic risk of any new, additional investment.

Even the position of small owner-cultivators is not very stable. Nobody, of course, forces them to sell their land or to intensify production. But producing at low levels and unable to utilize resources in their full potential, they are confronted with their own poor profits, and, on the other hand, a rapidly appreciating pond value. This makes them inclined to sell the ponds, often their only secure source of income. At the same time, it reinforces the concentration of ownership among the better-off pond owners as well as the presence of absentee landowners.

In this situation, the design of the latest intensification scheme "Intam", launched in 1984, appears quite promising at first sight. It is meant especially for small-holders, both owners and tenants with up to 2 ha of land under cultivation. However, its credit amounts and preconditions are too unrealistic and its implementation projections too ambitious. The present implementation rate of "Intam" clearly indicates that the program is up to now widely rejected.

Tenants, again especially sharecroppers, apparently have no future in Javanese brackishwater pond cultivation, anyway. They would probably and reasonably, shy away from any intensification due to insecure tenancy rights.

Ironically, there are indeed decade-old, very clear-cut tenancy laws in force which provide, for instance, that sharecropping should be the only tenancy relation in existence, that all agreements have to be written and made public, that contracts have to be valid for at least three years, and that the sharing ratio has to be 1:1 or even 2:1 in favor of the sharecropper. That those regulations are hardly being put into practice shows very clearly the weakness of measures taken to benefit the poorer rural strata.

It appears unavoidable that most tenants will be pushed out of their traditional field of work at the very moment it becomes profitable, and will be left with a rather insecure future. The only way to prevent this situation will be to provide acceptable and suitable job alternatives for former aquacultural tenants outside the aquacultural sector. Brackishwater pond intensification programs should be executed simultaneously with, say, income generating projects for aquacultural small-holders in order to keep the social toll for economic growth as small as possible.

It is true that the Government of Indonesia not only talks frequently about "integrated" or "comprehensive" development, but has already implemented initial steps toward this direction. The pace, however, is fairly slow. Whether aquacultural small-holders can still be reached and supported by maintaining this pace seems indeed rather doubtful. ●

Update on Guanacaste National Park

In the April 1987 issue of Naga, we published, upon Dr. Janzen's request, a one-column "special ad" soliciting support for the restoration and conservation of Guanacaste National Park (GNP) in Costa Rica. Here are some recent developments on the project.

The project's donor base is expanding -- Sweden, Holland, Scotland, England, Canada, US, Norway, Costa Rica, Japan; more than 600 have made private contributions.

Planning has begun for 250 acres of tree planting experiments in dry forest restoration with native trees at the beginning of May. The remaining land to be purchased is a smattering of small parcels ranging from $10,000 to $50,000, and four large holdings costing between $300,000 and $1,000,000 each.

A ranger station and a small biological station are going up, and the new GNP dormitory, laboratory hall and administration building will also be built.

Tax-deductible donations to the Nature Conservancy-Guanacaste Fund will be received by the Nature Conservancy International Program, 1785 Massachusetts Ave. SW, Washington, D.C. 20036 and transferred to GNP at no cost. Donations can also be made to the Guanacaste Endowment Fund, Fundación Neotropica, Apdo. 236, San Jose 1002, Costa Rica. Further information on GNP can be obtained from D.H. Janzen, Department of Biology, University of Pennsylvania, Philadelphia, PA 19104, USA.