Economic liberalization, rice intensification, and agricultural diversification in the Mekong Delta, Vietnam

J.F. Le Coq, Ecopol Program, Cirad-Amis, Hanoi, Vietnam (lecoq@fpt.vn)

G. Trébuil, Food Crops Program, Cirad-Ca, and Social Sciences Division, The International Rice Research Institute (IRRI), Thailand Office, Bangkok (guy.trebuil@cirad.fr)

M. Dufumier, Professor of Agricultural Development, Paris National Agronomic Institute (INA-PG), France (dufumier@inapg.inra.fr)

Purpose: What is the impact of liberalization on farmer livelihood systems?
• Since the late eighties, the policy of economic liberalization has generated an impressive growth in Vietnam, particularly in the rice sector of the Mekong delta
• But the effects of such reforms on the dynamics of farmers’ livelihood systems need to be better documented.

Methodology based on an historical and systemic approach
• A survey to identify key changes in the socioeconomic environment of the farms
• Intensive on-farm surveys to analyze each of the former and current main types of cropping and farming systems, and to quantify their economic performance.

The site: Omon District, in the central plain of the delta
• A representative diversity of rice ecosystems, mainly irrigated and deep water rice
• Extensive diversity of on-farm circumstances: farm size varies from 0.05 to 6.0 ha, 1 to 9 family workers per farmholding, and 10 to 15% of landless farmers per village
• High productivity in rice production: 10.6 t ha⁻¹ in 1995
• An impressive recent growth in rice production: +17 % per year between 1985 and 1995
• A process of agricultural diversification based on a rapid expansion of orchards.

Economic reforms boost intensification of rice systems
• Market liberalization allowed farmers to sell their rice at a higher price and to restore farmers’ capacity to accumulate capital (stage 1)
• Farmers invest their working capital in rice production inputs and motorized equipment to increase land productivity (Fig. 1); especially in double HYR cropping systems in irrigated areas (stage 2)
• Farmers invest further in land improvement, using heavy equipment, to improve water control in deep water areas in order to expand high productivity rice systems. This leads to an impressive increase in land productivity and labor demand (Fig. 2), especially with the expansion of the double HYR cropping system in the deep water ecosystem (stage 3).

Fig. 1. Steps in rice intensification and corresponding changes in rice productivity per main ecosystem, 1986-95 (HYR= high yielding rice).

From rice intensification to diverse farming systems
• With rapid economic growth, the demand for nonrice products increases,
• Farmers use their new capacity to invest, regained thanks to rice intensification, to diversify their production systems into nonrice crops, often on raised beds (sugarcane, tangerine, etc.),
• The diversification of rice-based production systems contributes to an overall intensification in working capital, fixed capital, and labor, which leads to more increases in family incomes.

Table 1. Characteristics of main types of farming households in Omon District, Mekong Delta, 1995.

<table>
<thead>
<tr>
<th>Type of farmer</th>
<th>Landless</th>
<th>Very small family holdings</th>
<th>Small and medium family holdings</th>
<th>“Patronal” farmers</th>
<th>“Entrepreneurial” farmers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency (%)</td>
<td>10</td>
<td>15</td>
<td>55</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>Type of production systems</td>
<td>Rice</td>
<td>Rice (+ nonrice)</td>
<td>Rice + nonrice</td>
<td>Rice + nonrice</td>
<td>Rice + nonrice</td>
</tr>
<tr>
<td>Average farm size (ha/household)</td>
<td>0.05</td>
<td>0.40</td>
<td>1.30</td>
<td>2.45</td>
<td>2.35</td>
</tr>
<tr>
<td>Type of equipment owned</td>
<td>Manual</td>
<td>Manual (or motorized)</td>
<td>Motorized</td>
<td>Motorized (or motorized)</td>
<td>Motorized</td>
</tr>
<tr>
<td>Type of off-farm activities</td>
<td>Hired farm labor</td>
<td>Hired farm labor and small-scale fishing</td>
<td>Hired farm labor and/or small-scale trade, fish or handicrafts</td>
<td>Small-scale trade, or large-scale trade, product processing</td>
<td></td>
</tr>
<tr>
<td>Net family income (SUS labor⁻¹ year⁻¹)</td>
<td>157</td>
<td>220</td>
<td>332</td>
<td>539</td>
<td>518</td>
</tr>
</tbody>
</table>

Fig. 3. Increasing diversification among various types of farmers in Omon District.

Conclusions
• The economic liberalization in Vietnam established a socioeconomic environment that allowed most farmers in the Mekong Delta to intensify their rice production systems, to increase their family incomes in general, and, subsequently, to diversify their on-farm and off-farm activities.
• But the overall intensification of rice-based production systems, implemented by very reactive small-scale family-based farming units, also led to a greater diversification among farming units in terms of availability of productive resources and income levels. Such social inequalities need to be addressed to ensure a more productive pattern of economic growth in this key region of the country.
• In particular, more attention should be paid to the generation of nonfarm employment and opportunities applications for farm laborers who have to abandon the agricultural sector.

References