

Poverty, forest and the economic crisis in Indonesia

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THE economic crisis in mid-1997 hit Asian countries with the devastating impact of an earthquake. In Indonesia, the rupiah collapsed and by early 1998 had lost 80% of its pre-crisis value against the US dollar. The peak of the crisis occurred in August-September 1998, by which time the percentage of the Indonesian population living below the poverty line had nearly doubled from 11% (in 1990) to about 20% (Mukherjee 1999).

Poverty exists in both rural and urban areas in Indonesia. In rural areas, it is found mostly in forested and coastal areas. At the same time, many forested areas are undergoing rapid deforestation and/or degradation as a result of human activity. This deforestation has at least four main (and often interrelated) causes: 1) forest exploitation by state-owned enterprises; 2) forest-land conversion for agricultural purposes; 3) human encroachment; and 4) poverty among forest dwellers.

Research objectives and methodology

My research was conducted in the Talippuki village located in the Polmas District of South Sulawesi Province. The objectives were: 1) to assess the proportion of forest-dwellers who have incomes below the poverty line and to examine how poor the poor are; 2) to assess factors responsible for poverty in the forest area; 3) to determine the perceptions of 'poor' forest dwellers about poverty and its relation to forest use during the economic crisis; 4) to identify economic activities and socio-cultural aspects of the forest dwellers in and near the forest area; 5) to identify the socio-economic impacts of the economic crisis and their effects on forest use; and 6) to find innovative strategies for poverty alleviation in the forest area.

Household survey has been the main tool for analysing poverty for several decades. However, in this research I

complemented this quantitative method with a qualitative approach that used community meetings, follow-up interviews and focus group discussions for gathering initial and general data not obtained in the household surveys. I used various statistical techniques to analyse the quantitative data, including XY scatter plots, descriptive statistics, correlation and multiple regression analyses, head count index (HCI), and poverty gap index (PGI). For the purposes of research I classified families into two group communities: 'in-forest' and 'near-forest' communities. Households were classified as 'in-forest' if they lived in a forest area (Pamoseang community) and their income was derived mainly from forest products; they were classified as 'near-forest' if they lived near a forest area (Talippuki community) and their income from forest products was not significant. I interviewed 60 households chosen at random in each community, so that 120 households out of a total of 378 households were surveyed.

Results

All measures—HCI, PGI, housing performance, the availability of basic needs, etc—strongly indicate that both communities are struck by acute poverty. Moreover, the number of poor households was larger and the acuteness of poverty higher in the in-forest community compared to the near-forest community. Among the variables studied, family structure, agricultural productivity, personal contribution to income, and factor contribution of income (the contribution of each economic activity to income) were significant predictors of poverty in the in-forest community, while family structure, wage rate, personal contribution of income and factor contribution of income were identified as predictors of poverty in the near-forest community. Other factors contributing to poverty included *keterpencilan* (isolation), *kurang modal usahatani* (lack of farm capital), *produksi hasil pertanian rendah* (low productivity of agriculture), *kesempatan kerja kurang* (lack of job opportunities), *pendidikan dan keterampilan rendah* (low education attainment and know-how), and *kerja keras tapi kurang penghasilan* (low productivity of labour).

In the in-forest community, people associated wellbeing and security with a large area of productive land, sufficient income to meet daily food requirements, good clothing, good and spacious shelter, and extra cash for: children's schooling; unpredictable 'events' such as illness and death; *musim paceklik* (the lag time between rice planting and harvest); and social and religious events. Households with all these things were not considered to be 'poor'. In contrast, households that had insufficient daily food, no permanent house, no regular cash income and/or little or no productive land were classified as 'poor' within the local community.

In both communities, people perceived that their household economic situation worsened during the Asian economic crisis. People from the in-forest community considered that the forest itself and 'working hard' were the most important

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Contact: Mr Charles Kumi Gyamfi, #124-9555, 128 St, Surrey, BC V3V 6N6, Canada; ckgyamfi@hotmail.com

Assessment of foreign-funded community-based reforestation projects in Ilocos Norte and Pangasinan

Contact: Mr Alfredo Rabena Racoma Jr, Department of Environment and Natural Resources, 3F Dona Pepita Bldg, Quezon Ave, San Fernando City 2500 La Union, Philippines; Fax 63-72-242 4044; DENR1FMS@SFLU.com

Making conservation pay: private sector forestry and the wise use of natural resources

Contact: Mr Tim Rayden, Oxford Forestry Institute, Plant Sciences Department, South Parks Road, Oxford OX1 3RB, UK; timothy.rayden@plants.ox.ac.uk

Sago starch and its acrylamide modified products as coating material in recycled paper

Contact: Mr Sin-Yeng Wong, Lecturer, Faculty of Resource Science and Technology, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, Malaysia; sywong@frst.univas.my

alternatives for generating cash in difficult economic times. In contrast, the near-forest community tended to regard the forest as not particularly important for surviving an economic crisis; 'working harder', 'adding extra crops' and 'reducing daily expenses' were seen to be more useful tactics.

In both communities people used the forest as a source of housing material and firewood and as a venue for socio-cultural activities; the latter included *baca doa* (prayer), *makkaringi* (eating new rice), and *madduluang* (working together). I also identified two value systems for forest use; they were *mabbatta kayu ketadenngi mupatujuang mosoko too* (literally: cutting timber without any purposes will 'hurt' both the timber itself and the environment), and *mo mabbatta kayu bassa to ko pattanang* (literally: if someone cuts timber in the forest, he should substitute it with another tree by planting more than he has cut already).

Recommendations

I made three recommendations for development efforts aimed at alleviating poverty while simultaneously promoting sustainable forest enterprises in the forest area. These were:

- promote and improve access to middle and higher levels of education for 'poor' forest dwellers. Primary education is not sufficient if the principles of sustainable agriculture and sustainable forest management are to be transferred and if such good-looking 'slogans' are actually to be put into practice;
- promote family planning to reduce family size. There was a strong correlation between family size (including number of children) and poverty and land clearing. If population growth remains high in forest areas, the forests will remain under pressure; and
- expand job opportunities outside agriculture and the forest environment.

In the short term, two policy actions can be taken. First, income generation by increasing the agricultural productivity of the land already in use should

be promoted. In so doing, it will be necessary to provide supporting measures such as farm credit and agricultural extension services. This strategy might make it possible for farmers to shift from local-traditional agricultural practices—which generate little cash income—to modern ecologically based agriculture. Second, promote the adding of value to rattan—a key forest resource—by introducing advanced processing technology and price guarantees by promoting linkages between rattan extractors, forest dwellers and rattan processing industries and traders.

The last recommendation is the promotion of 'ecohuman-based forest enterprises'. These may be defined collectively as a strategy to simultaneously promote income generation and sustainable forest management, emphasising and recognising the right of forest dwellers to 'legal space' within the forest for the conduct of enterprises such as agroforestry and silvopastoralism. Within the concept, forest is viewed as both an economic asset and a socio-cultural asset for the forest dwellers. Therefore, this strategy is intended to provide them with socio-cultural and economic incentives and compensation as well as facilitating access to forest-based enterprises. In practice, government would function as a development moderator rather than as a hunter of desperate *perambah hutan* (forest squatters) who are conducting uncontrolled logging in remote areas. It would encourage forest dwellers to be *jagawana* (forest security officers or forest police), who will watch over and control what happens to the resource.

References

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Mukherjee, N. (1999) *Consultation with the poor in Indonesia: country synthesis report (draft)*. Prepared for: Poverty Reduction and Economic Management Network, The World Bank.

The title of the masters thesis on which this article is based is 'Poverty situation in and near forest area during the economic crisis at South Sulawesi Province, Indonesia', Graduate School of Economics, Ryukoku University, Kyoto, Japan (unpublished). The research was conducted partially under the ITTO Fellowship Program.

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