

EMPLOYMENT AND INCOME SOURCES OF THE RURAL POOR:
MICRO-LEVEL INFORMATION FOR
DEVELOPMENT OF POLICY PRIORITIES

Joachim von Braun
and
Rajul Pandya-Lorch
(eds.)

with contributions from:

Harold Alderman
Howarth E. Bouis
Neville Edirisinghe
Marito Garcia
David Hotchkiss
Eileen Kennedy
Shubh Kumar
Detlev Puetz
Thomas Reardon
Stephen A. Vosti
Graciela Wiegand-Jahn
Julie Witcover
Yisehac Yohannes

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EXECUTIVE SUMMARY

The Research Questions

This research is stimulated by the preliminary insight that rural households, even if they are poor and/or located in so-called subsistence-oriented regions, are dependent on a variety of farm, non-farm and non-agricultural income sources. The scale and nature of these income sources and their relationship to the major economic sectors (agriculture, rural manufacturing, and services), through backward and forward linkages, need to be better understood for priority setting in development policy. The objectives of this study are threefold:

- 1) to identify employment and income sources of rural households of different socioeconomic characteristics in regions and countries at different stages of agricultural transformation and development;
- 2) to trace income and employment strategies (as revealed by these) of rural households, and, thus, to broaden the information base for policy priorities for integration of the poor into a sustainable growth and development process.
- 3) to look into distributions below and above the poverty line in order to identify relevant differences in demographic, income, and employment characteristics of poor and non-poor rural households and, thereby, assess the scope for "targeting" income sources of the poor as a poverty alleviation strategy;

Poverty is essentially, but not always, a matter of low incomes, where the cost of acquiring a certain commodity bundle determines the income or expenditure-based poverty line. An income-based indicator is an indirect means of measuring poverty. In this study, we measure poverty directly through consumption, given certain commodity characteristics and behaviors, rather than indirectly through incomes. A central and fundamental characteristic of absolute poverty is insufficient food consumption for an active and healthy life. The poverty line (cut-off point) is defined here by calorie consumption being 80 percent of the recommended consumption for an active and healthy life.

Driving Forces of Income Diversification

New households economics theory goes a long way toward explaining household income strategies. Derived from a (farm) household model, we find income diversification driven by: the farm resource base; household work force (time); the off-farm wage rate and productivity in commercial and subsistence production; and consumption preferences/needs. Other driving forces toward household income diversification include differentials in opportunity costs of labor within households; and objective risks and (subjective) attitudes toward risks.

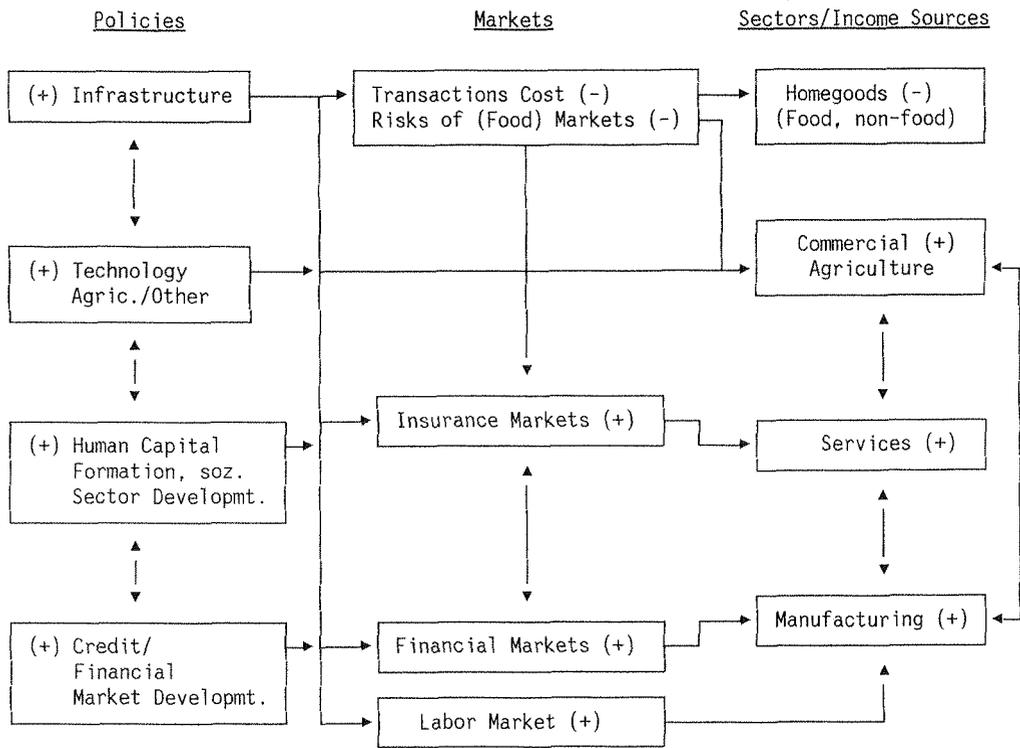
Income source diversification is thus driven by the need to select a portfolio with elements of low co-variate risks. With increased gains from specialization in risky (commercial) farming, the demand for non-agricultural employment to reduce income variance also increases when insurance mechanisms are imperfect. Thus, farm specialization and off-farm labor supply by farm households may be partly in a reinforcing rather than a substituting relationship when risk of market failure prevails.

Static household models leave out the dynamic processes of policy/market interactions and their implications for sectoral diversification in the rural economy. Sectoral diversification in the development process is linked via market interlinkages and is impacted upon by policies (see Figure 1). Key policies such as infrastructure improvements, technology, human capital formation, and credit market development result in reduced transactions costs and lower food market risks; in expansion of insurance, financial and labor markets and reduced risk of failure in these; shrinkage of the home goods sector; and, expansion of commercial agriculture, rural services, and manufacturing.

Sectoral and Cross-Country Comparisons

There is a tendency for agricultural income shares of the rural population to decline in the context of economic growth but this relationship is much less clear cut than the well-known relationship between agriculture income share and national income level. According to plausible estimates, agriculture contributes 41 to 55 percent of rural income in all major developing country regions, with the exception of Central America (34 percent). Africa is no exception (53 percent). Agricultural income forms the major share of total rural income in many low income countries, particularly in those with GNP per capita up to U.S. dollars 500. However, considerable diversity exists: the agricultural income share in rural income ranges from about 30 to 90 percent among this group of low income countries.

Figure 1--Sectoral diversification, market, and policy links



+ : increased resource allocation to...; expansion of...
- : reduction of...

The general relationship between absolute poverty (here measured in terms of prevalence of malnutrition) and level of average rural per capita income is strong, particularly in countries with per capita GNP per annum range of \$200 to \$800: the prevalence of rural malnutrition is reduced by 14 percentage points, if income increases from \$300 to \$600, which means an about 40 percent reduction in the prevalence rates. The sector structure—holding incomes constant—did not influence prevalence rates of malnutrition over and above the income level effect.

Malnourished Rural Poor (MRP)

Income Composition and Strategy: Micro-Information for Policy

The 13 household-level surveys used in this comparative study represent a fair amount of differences in regional, ecological, and socioeconomic characteristics. The survey sites are located in Latin America (Brazil, Guatemala); Africa (The Gambia, Burkina Faso, Kenya, Rwanda, Zambia); and Asia (Sri Lanka, Pakistan, Bangladesh, India, Philippines). None of the surveys claims to be representative for the entire country in which it is located.¹ However, they do represent points of information on a range of different low-income rural settings.

All surveys were conducted in the 1980s and thus represent recent situations. They capture a fair amount of different economic environments and development policy contexts. Areas of more traditional subsistence orientation are represented, as are areas with improved infrastructure, with rapid technological change in agriculture, and with expanded non-farm employment. It is in terms of these categories, rather than in terms of "country cases," that the microlevel information should be perceived in this study.

Annual per capita household incomes (in 1985 US\$) of severely malnourished households ranged from about \$40 in North Arcot (India) during the drought year to about \$716 in the Zona de Mata, Brazil. The diversity in income levels of the severely malnourished suggests against the adoption of a general or common income poverty line applicable across countries or even across regions in one country.

Rural households do not depend directly for income only or mostly on agriculture; in half of the survey locations, the non-agricultural income share of households is about or exceeds 50 percent. The share of non-agricultural income in total income ranges from 13 percent to 67 percent among the 13 surveys.

There is considerable diversity in income sources among the

¹ The Pakistan, and Bangladesh surveys are exceptions, with their rather broad coverage.

surveys, within the same survey, over time, and between MRP and non-MRP households among the surveys, although interestingly, in this last case, not so much within the same survey. Thus, there is little basis for making generalizations about income sources of the poor and non-poor households and for deriving blanket conclusions pertaining to income source targeting. For instance, among the surveys, income from livestock is notable only in Brazil, Pakistan, Bangladesh, and the Sahelian and Guinean zones of Burkina Faso, but inconsequential elsewhere. Crop production is quite important everywhere, except in Guatemala, the Sahelian zone (Burkina Faso), Sri Lanka, Pakistan, and one of the Philippines surveys. Wage employment is an important income source in the Guatemala, Sri Lanka, Pakistan, Bangladesh, North Arcot (India), and the two Philippines surveys, which can be attributed to the agricultural structure and high population densities and consequent landlessness.

Within the same country, too, income sources and their contribution to total income, differ substantially by location. For instance, agro-ecological differences, combined with different government policies, contribute to such differences in Burkina Faso. Income from crop production is quite unimportant in the Sahelian zone (agro-climatically a very poor zone, with extreme variations in cropping outcomes) compared to the other two zones as distinguished in the Burkina Faso survey, which are somewhat better off. Instead, transfers and remittances are somewhat more important in the Sahelian zone, where they contribute almost one-third of income, particularly from non-local non-farm, i.e. migration income.

Neither are income source patterns steady over time, but rather they are dynamic, as they adjust to varying economic circumstances. During the drought year in North Arcot (India), agricultural wage income was a smaller share of total income, as employment opportunities on large paddy farms dried up. As the agricultural and overall economy improved following the drought, the share of income from agricultural wage employment increased considerably, as did income from services and trading. In The Gambia survey area, the opposite pattern was observed of off-farm income shares being inversely related to crop-production performance; i.e., the better the crop production, the lower the off-farm income share. This is related to the low share of agricultural wages in off-farm income. In this context, high off-farm income shares are indicative of either an income diversification strategy or of poor agricultural performance.

There is almost no difference in terms of the share of income coming from aggregated agricultural and non-agricultural sources for MRP and non-MRP households in each survey location. Only in North Arcot, India, during the non-drought year, did a substantial differential arise, when non-MRP households received 81 percent of total income from agriculture as opposed to the 63 percent share of MRP households. However, differences do exist between MRP and non-MRP households in the

shares of different income sources within the agricultural or non-agricultural sectors in some cases, especially where wage income appears to be a distinguishing feature of the income of the MRP, such as in survey sites in Guatemala, Rwanda, or North Arcot (in the non-drought period). In Guatemala, wages from agriculture and non-agriculture were 67 percent of income for non-MRP households, compared to 51 percent for MRP households.

Access to Land

While ownership of land appears to be an important factor for diet adequacy, the physical size of the farm itself (in hectares) does not seem to affect the prevalence of malnutrition as much. Either the farm sizes do not differ much by prevalence of calorie deficiency, such as in the survey sites of Guatemala, Kenya, India, and the Philippines, or there is a u-shaped relationship between farm size and hunger, as in the Zona da Mata survey site or even a positive relationship, as observed in the Zambia survey location. Farm size alone is not indicative of the quality of the land or, for that matter, of the ability to exploit production potentials, or its use as collateral in times of stress.

Ownership of land or access to even small pieces of land for farming made a substantial difference to the poverty outcome. Generally, there tends to be a higher prevalence of poverty among the landless or quasi-landless households than in the sample as a whole. The landless were much more dependent on other (riskier) sources of income than farm incomes and on the diversification of the rural economy. For instance, 70 percent of the income of the landless in one Philippine survey location came from agricultural wages. A much greater proportion of MRP households which were landless could be observed in the Asian survey sites (25 percent in Pakistan to 66 percent in Kandy District and North Arcot (1983/84)) than elsewhere. The comparable proportions were only 6 and 12 percent in Western Kenya and Northwest Rwanda, respectively.

Women's Income

Female-headed households are generally poorer than male-headed households, yet, they were sometimes better fed and absolute poverty was less prevalent among them than in the sample as a whole. The control of income (and its resulting expenditure) is a determining factor. Some of the household-level surveys found that women are more likely to spend more of their income on food and nutrition than men, who are more likely to spend their income on personal tastes.

Female-headed households are not more apt to be MRP households (in comparison to the whole sample), except in the Southwestern Kenyan survey area and the Eastern Province of Zambia survey area. Otherwise, the gender of the household head was unimportant for distinguishing between MRP and non-MRP households. At the same time, again with the

exception of Eastern Province, Zambia, female-headedness is not a marker for a significant problem in the food-poverty picture—only 2 to 7 percent of MRP households were female-headed. Hence, the scope for targeting for poverty alleviation on the basis of female gender of head of household appears to be limited in these survey sites. However, there is considerable scope for extra efforts to raise women's incomes—or more generally, women's value of time—especially in the African context, given the evidence that women tend to allocate more of their resources for the family's welfare.

Policy Conclusions

1. Agricultural growth alone is a necessary but not sufficient long-term strategy for poverty alleviation. The poor are much linked to rural manufacturing with their direct income sources and expenditure patterns. Explicit promotion of manufactured goods availability in light of the incentive role they play for rural and agricultural growth, and fostering the complex synergistic feedback effects between agricultural and manufacturing growth through credit and infrastructure promise poverty alleviation effects beyond favorable agricultural growth effects.

2. The diverse pattern of the poor's income sources, even in the same macro and micro regions covered by in-depth surveys, does not suggest a general blueprint of targeting the poor's specific income streams. The issue is more with alleviating the poor's problem of risky income streams and risk of market failure. Only when market development progresses (in food and factor markets) can the poor be efficient.

3. There are two distinct motives underlying income diversification, depending on the nature of the rural economy: one, diversification in stagnating rural economies as a reflection of the poor's coping with income source specific risks (diversification for "bad" reasons); and two, diversification in growing rural economies as a reflection of dynamism and of capturing of gains from specialization at the household level (diversification for "good" reasons). To move swiftly from the former to the latter is a central task of rural growth strategy. Thus, targeting basic market failure and production instability problems, which have a major impact on the poor, may be more effective for poverty alleviation than direct targeting of the poor—be it on the consumption side or on the income earning side.

4. While hunger is addressed effectively with household income growth (and, possibly, income transfers), malnutrition requires community-level health and sanitation action, which is also facilitated and made sustainable by rural growth. Thus households need to be viewed in the community level context and the community has to attract much of the policy focus in many areas of development, such as infrastructure, health, and sanitation.

5. The analysis suggests a focus on: (1) Prevention of policy-induced market failures, i.e., in food and labor markets, which otherwise fosters income diversification for "bad" reasons; (2) Improved market integration through infrastructure, facilitating diversification of income sources for "good" reasons; (3) Social security with and before growth, in order to permit specialization by the poor in risky food and labor market environments. This includes community health and sanitation improvement; and (4) Rural growth promotion with technological change in agriculture and rural manufacturing to raise productivity and increase manufactured goods' availability at low prices.