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Abstract

This paper uses a newly constructed cross country database composed of comparable variables and aggregates from household surveys to examine the full range of income generating activities carried out by rural households in order to determine: 1) the relative importance of the gamut of income generating activities in general and across wealth categories; 2), the relative importance of diversification versus specialization at the household level; 3) the relationship between key household assets and the participation in and income earned from these activities; and 4) the influence of rural income generating activities on poverty and inequality. Analysis of the RIGA cross country dataset paints a clear picture of multiple activities across rural space and diversification across rural households. This is true across countries in all four continents, though less so in the African countries included in the dataset. For most countries the largest share of income stems from off farm activities, and the largest share of households have diversified sources of income. Diversification, not specialization, is the norm, although most countries show significant levels of household specialization in non-agricultural activities as well. Nevertheless, agricultural based sources of income remain critically important for rural livelihoods in all countries, both in terms of the overall share of agriculture in rural incomes as well as the large share of households that still specialize in agricultural sources of income.

Key Words: rural non farm, income diversification, household surveys.

JEL: I32, O15, O57.

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Rural Income Generating Activities: A Cross Country Comparison

I. Introduction¹

A widely accepted tenet of the development literature is that, in the process of structural economic transformation that accompanies economic development, the farm sector as a share of the country's GDP will decline as a country's GDP grows (Chenery and Syrquin, 1975). In rural areas, this implies that a shrinking agricultural sector and expanding rural non-farm (RNF) activities, as well as a changing definition of rural itself, should be viewed as likely features of economic development. The available empirical evidence unequivocally points out to the existence of a large RNF economy.² While few data sources exist which allow for consistent measurement of changes in RNF income and employment over time, available information points to an increasing role for RNF activities.³

It would be misleading, however, to see this growth in RNF activities in isolation from agriculture, as both are linked through investment, production and consumption throughout the rural economy, and both form part of complex livelihood strategies adopted by rural household. Income diversification is the norm among rural households, and different income generating activities offer alternative pathways out of poverty for households as well as a mechanism for managing risk in an uncertain environment. It is therefore useful, when thinking about rural development, to think of the full range of rural income generating activities (RIGA), both agricultural and non-agricultural, carried out by rural households. This can allow a better understanding of the relationship between the various economic activities that take place in the rural space and of their implications for economic growth and poverty reduction.

FAO (1998) characterizes three broad 'stages' of transformation of the rural economy. A first stage during which both production and consumption linkages between the farm and non-farm sector are very strong and rural-urban links still relatively weak. During this stage, the main non-farm activities tend to be mainly in areas upstream or downstream from agriculture. The second stage is characterized by a lower share of households directly dependent on agriculture, and greater rural-urban links. Services take off more strongly and new activities like tourism are started, while labor-intensive manufacturing in rural areas finds increasing competition from more capital intensive urban enterprises and imported goods. The third stage is characterized by a maturing of these trends: stronger links with the urban sector,

¹ The views expressed in this paper are those of the authors and should not be attributed to the institutions with which they are affiliated. We would like to acknowledge Marika Krausova for her excellent work in helping build the RIGA database and Karen Hudlet for research assistance. We would like to thank Karen Macours, Alain de Janvry, Elisabeth Sadoulet, Derek Byerlee and Gustavo Anriquez for constructive comments on the text and data, as well as other numerous researchers for helping us check the data. We would also like to thank participants at workshops at the FAO in Rome, the IAAE meetings in Brisbane and the AES meetings in Reading, for comments and discussion.

² See, among others, FAO (1998), Reardon, et al (2001), Lanjouw and Lanjouw (2001) and Haggblade et al, (2005)

³ Evidence in this direction is provided for Latin America by FAO (1998) and for Asia by Haggblade, et al (2005).

migration and employment and income increasingly generated in sectors with little or no relation to agriculture.

In this context, the challenge for policy makers is how to assure that the growth of the RNF “sector” can be best harnessed to the advantage of poor rural households and how to identify the mechanisms to best exploit synergies across agricultural and non-agricultural sectors. The growing consensus is that although agriculture continues to play a central role in rural development, the promotion of complementary engines of rural growth is of paramount importance. Yet, the poverty and inequality implications of promoting RNF activities are not straightforward. They depend on the access of the poor to RNF activities, the potential returns to RNF activities and the share of RNF activities in total income. Just as for agriculture, the ability of poor individuals and/or households to participate in potentially more lucrative RNF activities may be limited given barriers to entry in terms of liquidity or human capital constraints. When that is the case, a vicious circle may be established whereby poor households get relegated to low-return RNF activities that serve more as coping strategies than as a way out of poverty. Promotion of RNF activities may then leave poor household behind and exacerbate rural income inequality.

The general objective of this background paper is to analyze rural income generating activities in order to contribute to the design of more effective and better targeted rural development policies. The specific objectives are to examine the full range of rural income generating activities carried out by rural households in order to determine: 1) the relative importance of the gamut of income generating activities in general and across wealth categories, both at the level of the rural economy and the rural household; 2), the relative importance of diversification versus specialization in rural income generating activities at the household level; 3) the relationship between key household assets and the participation in and income earned from these activities; and 4) the influence of rural income generating activities on poverty and inequality.

While there has been some focus in recent years on rural non-farm activities in the development literature, most of which are cited in this paper, a number of limitations suggest the need for further work. First, most of the previous literature has focused on the diversification into rural non-farm activities at the level of the rural economy. This is usually done by gauging the shares of different income sources over the rural population or over groups of rural households. This paper instead stresses the diversification and specialization of income generating strategies at the level of the rural household.

Second, the methodologies of past efforts have typically not been comparable across countries. For example, Lanjouw and Feder (2001) note that much of the observed variation among countries in the share of RNF activities stems from weaknesses in the data being used since for many countries data are outdated or missing altogether while for others, the only available data are often case studies of limited geographical reach and therefore not nationally representative. For those other countries for which nationally representative data are available and fairly recent, country specific studies typically use idiosyncratic methodologies which are not comparable with similar studies in other countries, as individual researchers tend to use definitions and methods tailored for a country in question.

In order to address directly these data concerns, this paper takes advantage of a newly constructed cross country database composed of comparable variables and aggregates from selected high-quality household surveys, which we refer to as the RIGA database. The RIGA

database allows for a systematic analysis of data from a range of countries and thus greater confidence in the comparability of results.

To meet the objectives of this Background Paper, the following areas are covered. In Section II, we describe the construction of the RIGA database. In Section III, we analyze the participation of rural households in rural income generating activities and the share of income from each activity in household income, over all households and by expenditure quintile. In Section IV we move from the level of the rural space to that of the rural household, examining patterns of diversification and specialization in rural income generating activities, again over all households and by expenditure quintile. In Section V, we look at the correlation of access to assets and demographic characteristics with participation in, and income from, the set of income generating activities over the countries in the RIGA dataset. In Section VI, we decompose income inequality by income source, for all countries, using the Theil index. Conclusions are then presented in Section VII.

II. Description of the RIGA database

The analysis presented in this background paper utilizes the RIGA database, which is constructed from a pool of several dozen Living Standards Measurement Study (LSMS) and other multi-purpose household surveys made available by the World Bank through a joint project with FAO. From this pool of possible surveys, the choice of particular countries was guided by the desire to ensure geographic coverage across the four principal development regions – Asia, Africa, Eastern Europe and Latin America –, as well as adequate quality and sufficient comparability in codification and nomenclatures. Furthermore, an effort was made to include a number of IDA (International Development Association) countries as these represent developing countries with higher levels of poverty and are therefore of particular interest to the development and poverty reduction debate.

Using these criteria, survey data from the list of countries in Table 1 were utilized. Each survey is representative for both urban and rural areas; only the rural sample was used for this analysis. While clearly not representative of all developing countries, the list does represent a significant range of countries and regions and has proved useful in providing insight into the income generating activities of rural households in the developing world. A more detailed description of the dataset can be found in Table AI.1 in Appendix I.

Table 1. Countries included in the analysis

Eastern Europe	Africa	Latin America	Asia
Albania, 2005	Ghana, 1998	Guatemala, 2000	Bangladesh, 2000
Bulgaria, 2001	Madagascar, 1993	Ecuador, 1995	Indonesia, 2000
	Malawi, 2004	Nicaragua, 2001	Nepal, 1996
	Nigeria, 2004	Panama, 2003	Pakistan, 2001
			Vietnam, 1998

Once the countries were selected the next critical step was to construct income aggregates that were comparable across countries.⁴ This required resolving a host of issues that arose in the construction of the aggregates. The first key choice relates to the definition of rural and,

⁴ Details of the construction of the income aggregates can be found in Carletto, Covarrubias and Krausova (2007).

correspondingly, which households are considered rural households for the analysis. Countries have their own unique mechanisms of defining what constitutes rural. However, government definitions tend not to be comparable across countries and this may make differences in results driven by the fact that rural is not being defined in the same way. On the other hand, it may make sense to use government definitions since presumably this definition reflects local information about what constitutes rural and is the definition used to administer government programs. While recognizing the potential problem with using country-specific definitions of rural, the available survey data do not allow for a straightforward alternative definition⁵ and therefore the government definition of what constitutes rurality is used. One additional caveat regarding rurality is that with the information available we identify rurality via the domicile of the household, and not the location of the job. It is probable that a number of rural labour activities identified in this report are located in nearby urban areas.⁶

A second choice is to determine how to disaggregate income data in a manner that is consistent across countries. One common initial division is between agricultural and non-agricultural activities although defining this distinction in a concise manner is potentially problematic. A second common division of income, for both agriculture and non-agricultural activities, is between wage employment and self-employment. Additionally, transfer payments, either from public or private sources may be included. For this study, seven basic categories of income have been identified for analysis: 1) crop production income; 2) livestock production income; 3) agricultural wage employment income, 4) non-agricultural wage employment income; 5) non-agricultural self employment income; 6) transfer income; and 7) other income. For some of the analysis, transfer income is further divided into public and private sources. In addition to this classification, non-agricultural wage employment income and non-agricultural self employment income have been further disaggregated by industry using standard industrial codes for countries where information is available.

Although these seven created categories form the basis of the analysis, in certain cases these are aggregated into higher level groupings depending on the type of analysis being carried out. In one grouping, we distinguish between agricultural and non-agricultural activities. In this case, the first three categories (crop, livestock and agricultural wage income) make up *agricultural* activities while the latter four (non-agricultural wage, non-agriculture self employment, transfer and other income) represent *non-agricultural* activities. In a second grouping, we refer to the first two categories (crop and livestock income) as *on-farm* activities, categories 4 and 5 (non-agricultural wage and self employment income), as *non-farm* activities, and leave agricultural wage employment, transfer and other income as separate categories. Finally, we also use the concept of *off farm* activities, which includes all non agricultural activities plus agricultural wage labor.

A third choice relates to the unit of analysis. While it is most common to evaluate income generating activities at the household level, analysis is often conducted at the individual level. The value of looking at the individual level is that it gives a clear idea of how individual characteristics influence participation in and the level of income derived from different activities. However, it is often difficult to determine individual income, and the activities of one member of a household are likely to be jointly determined as part of an overall household strategy of income generation and diversification. Ultimately, the appropriate approach will

⁵ To define a comparable measure of rurality across countries would require, for example, data on population densities which requires having access to census or similar data that can be linked to the survey. These are generally not available.

⁶ See Barret et al. (2001) for a discussion of this point.

depend on the questions being asked in a given research endeavour. For this paper, the household was deemed the appropriate level of analysis both based on the view of the importance of the household as a social institution in which decisions are made and the availability of data at the household level.

A fourth choice relates to whether, in the analysis, income shares should be analyzed as the mean of income shares or as the share of mean income. In the first case, income shares are calculated for each household, and then the mean of the household shares of each type of income (MS_i) is calculated, or more formally:

$$MS_i = \frac{\sum_{h=1}^n y_{ih} / Y_h}{n},$$

with income source i , total income Y , household h , and n the number of households. In the second case, income shares are calculated as the share of a given source of income over a

given group of households, $SH_i = \frac{\sum_{h=1}^n y_{ih}}{\sum_{h=1}^n Y_h}$. The two measures have different meanings. The *mean*

of shares reflects more accurately the household-level diversification strategy, regardless of the magnitude of income; while the *share of means* reflects the importance of a given income source in the aggregate income of rural households in general or any given group of households. If the distribution of the shares of a given source of income is constant over the income distribution, the two measures give similar results. If however, for example, those households with the highest share of crop income are also the households with the highest quantity of crop income, then the share of agricultural income in total income (over a given group of households) using the share of means will be greater than the value using mean of shares. Given our emphasis on the household as the basic unit of analysis, we use the mean of shares throughout this paper. The shares of means have nevertheless been calculated, however, and can be found in the Appendices as indicated throughout the text.

Note that the difference in the manner in which shares are described and in which rural income generating capacities in general are discussed has led to some confusion over the terminology used in the literature. In particular, the term diversification is often used to describe the rural economy as a whole when there is clear range of activities from which rural households obtain income. But a diversified rural economy does not necessarily imply diversified households – that is, households that participate in and obtain income from a range of economic activities. It may be the case that households tend to specialize in certain activities although the rural economy as a whole is economically diverse. To avoid this confusion, we use the terms rural diversification to suggest diversification of the overall rural economy and household diversification to refer to household behaviour.

For each of the countries listed in Table 1, income aggregates for rural households were created as described. Furthermore, a comparable set of household variables—including demographic characteristics, asset endowments and access to infrastructure and institutions—was created in order to facilitate the analysis of the data. As with the income aggregates, these variables were also created in a comparable manner across countries. As an indicator of welfare levels we used the consumption expenditure aggregates that accompanied each dataset, each of which had been constructed in a largely comparable fashion according to widely accepted and internationally recognized criteria. The final set of data used for this

analysis includes 15 nationally representative, comparable datasets with a consistent set of variables, plus 8 countries for which we have data sets from multiple years, for a total of 23 datasets. Results for these 8 extra countries are included in the tables in the Appendices. The construction of the data in this manner helps to overcome some of the limitations of previous analysis of rural income generation. Only rural households are used in the subsequent analysis.⁷

III. Rural diversification of income sources

The majority of studies in the existing literature on rural non-farm activities focus on the diversification of income sources over rural space, or over groups of households within the rural space. To examine rural diversification, we begin by looking at the share of income from rural income generating activities as well as household participation rates in the different rural income generating activities. At this level of analysis, the RIGA data reveal high levels of rural diversification in terms of income sources in most countries. Yet, rural diversification clearly does not necessarily mean complete abandonment of on-farm crop and livestock activities, as most rural households in most countries maintain on-farm activities, despite participation in other off farm activities. Following the general discussion of rural income generating activities, we look more closely at rural non-farm activities and the range of industries in which households participate, finding that even within this sector activities vary greatly. A similar detailed analysis of transfers follows to determine the relative importance of public and private transfers which shows significant variability across countries. Finally, the relationship between wealth status and rural income generating activities is examined using expenditure quintiles. The results highlight the fact that certain activities tend to be more closely associated with economic status.

Figure 1. Percent of total income, by on-farm activities, agricultural wage employment, non-farm activities and transfers

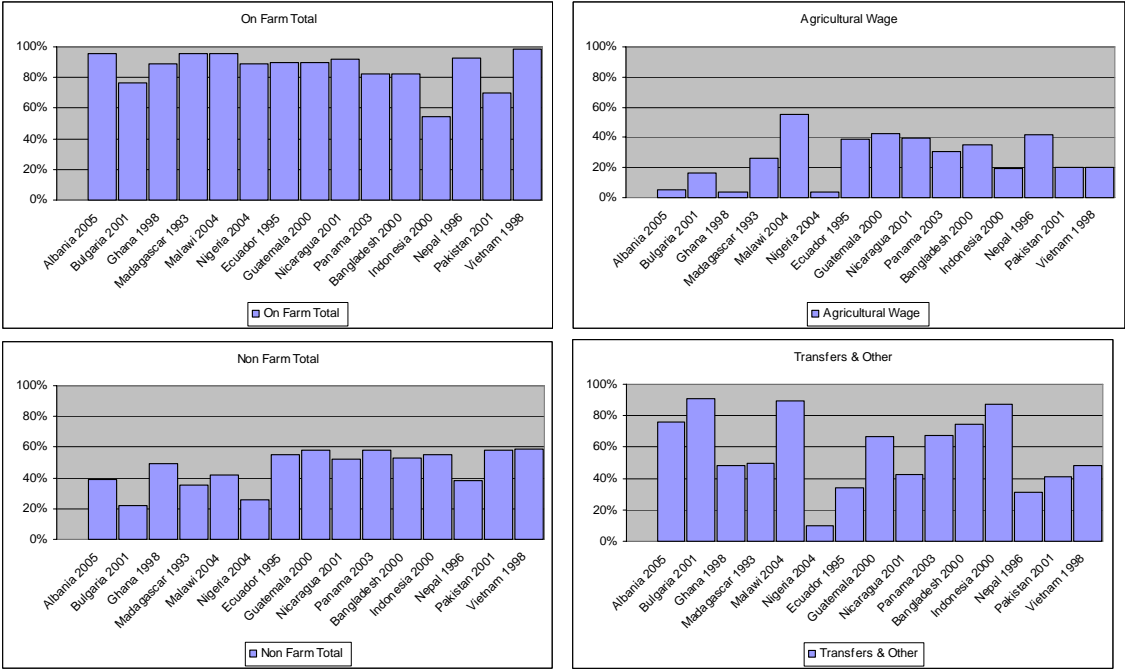


Figure 1 shows the share of income by source and suggests that off farm sources of income account for more than 50 percent of rural income in a majority of the RIGA countries (11 of 15 countries). This is true of all of the countries from Eastern Europe and Latin America and

⁷ Note that the data come from national surveys designed to be representative of the population although in most cases the poor have been over sampled. Thus most calculations presented in the paper use sample weights to provide accurate estimates of the true values for the rural population.

for all but Vietnam for Asia. Overall, off farm sources of income represent between 22 and 84 percent of total income, with an average value of 58 percent. Excluding agricultural wage income from these calculations, non-agricultural income ranges from 20 to 75 percent of total income, or 47 percent on average.⁸ Not surprisingly, on-farm sources of income tend to be more important for the African countries, there the share ranges from 48 to 77 percent of total income.

Figure 2. Percent of rural households participating in on-farm activities, agricultural wage labor, non-farm activities and transfers



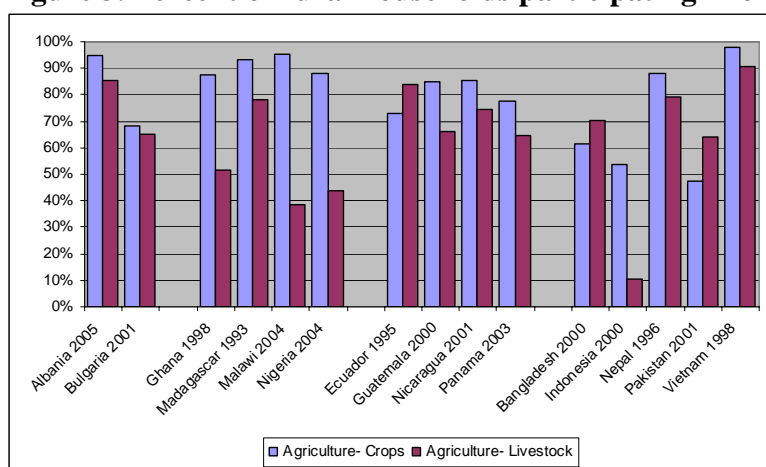
While rural non-farm activities are important, thus meriting the increased attention which they have received in the literature and policy debates, the vast majority of rural households among the RIGA dataset countries still maintain on-farm production. This can be best seen in Figure 2 which shows participation rates in different income generating activities. In all countries but one (Indonesia), about two thirds of rural households participate in on-farm activities and in 12 countries the percentage is above 80 percent.⁹ While for some of these households the importance of this participation is relatively minor, since it includes holding a few small animals or patio crop production—an issue we take up later in the section on household diversification—agriculture continues to play a fundamental role in rural household economic portfolios. For non-agricultural activities and transfers, the range of participation ratios across countries is much greater, though in both cases, in most countries the rate is at least 40 percent, including all of the Eastern Europe and Latin American countries. The high incidence of participation in both agricultural and non-agricultural activities points to highly diversified RIGA portfolio at the household level. We explore the extent of this household-level diversification in Section IV.

⁸ Full results, including share of means calculations, can be found in Appendix II
⁹ Participation is defined as the receipt of any household income (negative or positive) by any household member from that income generating activity. The tables in Appendix II present data on participation rates for all rural income generating activities for the countries included in this analysis as well as a general breakdown between agricultural and non-agricultural activities.

Disaggregation of rural income generating activities

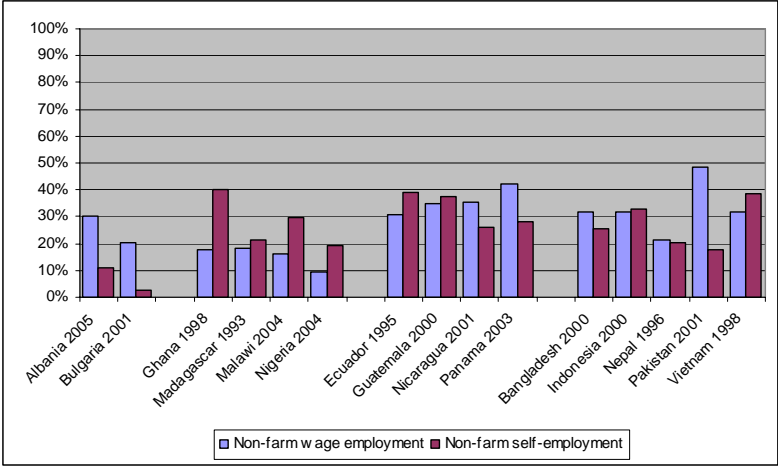
As a next step we look in more detail within the farm and non-farm sectors. Figure 3 presents participation rates in the main agricultural activities—crops and livestock. Similar patterns emerge. Most countries (12 of 15) have at least two-thirds of rural households participating in the production of crops. Livestock activities are only slightly less common, and all countries, except Indonesia and Nigeria, have at least half of rural households participating in livestock activities. In contrast (Figure 2), participation in agricultural wage labor shows much more variation. Relatively few rural households in Eastern Europe work in agricultural wage labor; while 20 to 40 percent do so in Latin America and Asia. Variation is greatest in Africa where few households work in agricultural wage in Ghana and Nigeria while over 50 percent work in agricultural wage labor in Malawi.

Figure 3. Percent of rural households participating in on-farm activities



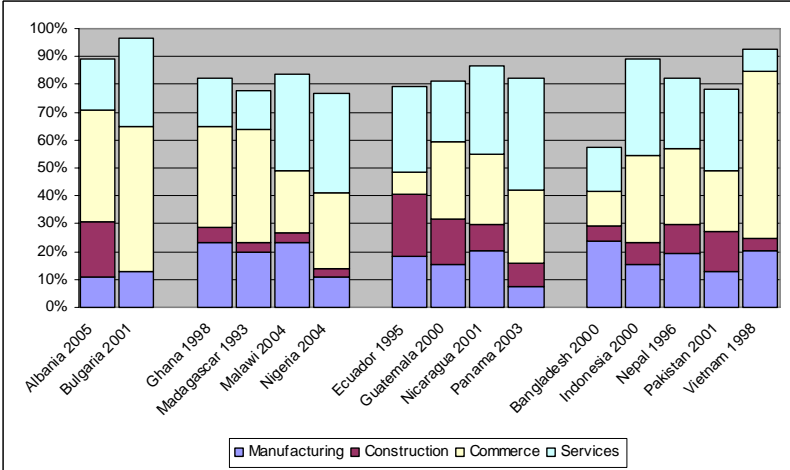
Participation rates in non-farm activities are further disaggregated into non-agricultural wage employment and self employment in Figure 4. While the rates of self employment participation are lowest for the Eastern Europe region, in the other regions participation rates are generally high for this category and either exceed or mirror those for non-agricultural wage employment. Wage employment is clearly important for most regions, with more than 20 to 40 percent of households participating in all countries with the exception of Africa, where the range is from 10 to 20 percent. Non-agricultural wage employment is particularly important for rural households in Latin America and for most countries in Asia.

Figure 4. Percent of rural households participating in non-farm activities



The non-farm wage and self employment component of non-agricultural income can be further broken down indicating which industries tend to be more important in the non-farm economy. Eight sectors in wage employment are identified –mining, manufacturing, utilities, construction, commerce, transport, finance, services and other, and nine in self employment with the addition of agriculture and fish processing. These sectors could be even further disaggregated revealing a broad range of industrial activities in which households are occupied. Focusing on the broader industrial sectors and considering non-agricultural wage and self employment activities together, Figure 5 shows respectively the share of non-farm income in the four most common components. As can be seen from the figure, commerce and services in most cases represent the largest sectors of rural non-farm income with a simple mean across countries of 32 and 25 percent of non-farm income. Manufacturing is next in importance followed by construction. Services are particularly important in Latin America while commerce is more important in Eastern Europe.

Figure 5. Composition of non-farm income, by sector

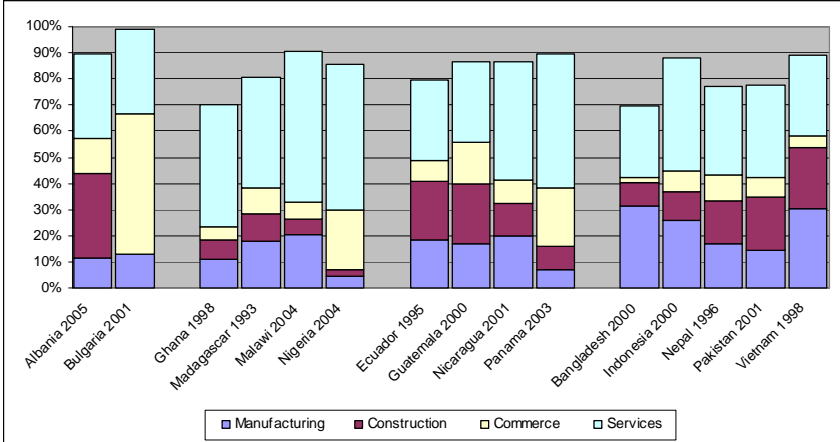


Note: Remainder of each column up to 100% is made up of other categories.

The relative importance of types of rural non-farm activities differs by whether a wage activity or self employment. As seen in Figure 6, services, primarily jobs in the public sector, are particularly important in non-agricultural wage employment, holding the greatest share of income in all countries except in Bulgaria. This is followed by manufacturing and then commerce. This latter category is much more important among non-agricultural self

employment activities, in terms of both share of income and participation rates (see Tables AII.6 and AII.7 in Appendix II).

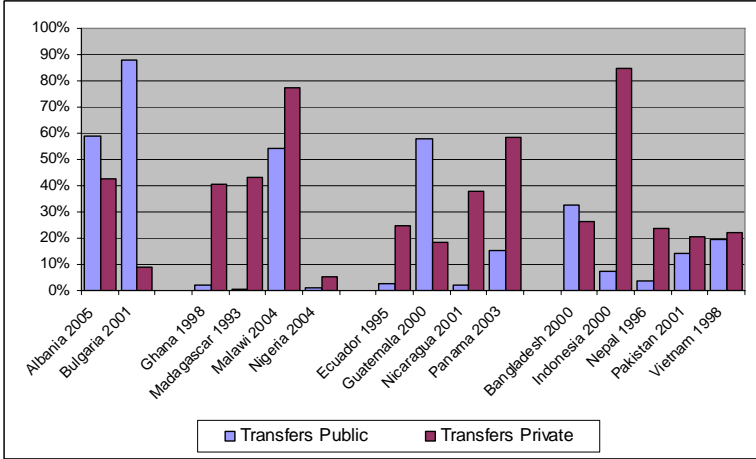
Figure 6. Composition of non-agricultural wage labor, by sector



Note: Remainder of each column up to 100% is made up of other categories.

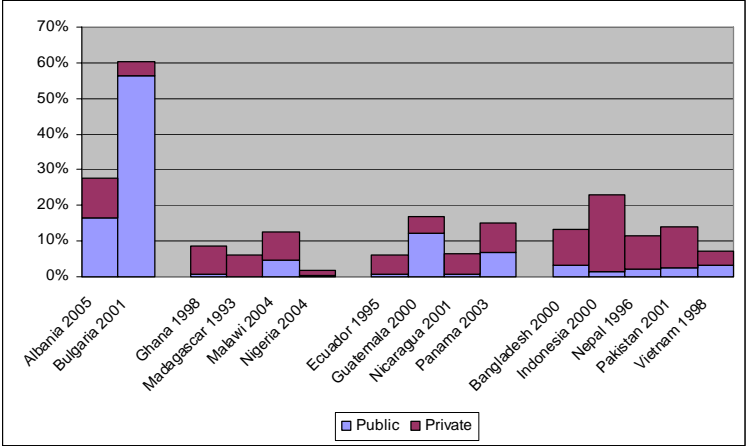
Among the off-farm activities, transfers account for an important share of household incomes in many cases. With the exception of Nigeria, at least 20 percent of all rural households in countries surveyed received public or private transfers (see Figure 2). As can be seen in Figure 7, for most countries under study with the exception of the Eastern European countries, Guatemala and Bangladesh, rural households are more likely to receive private transfers than public transfers. Outside of Eastern Europe, only in Malawi and Guatemala do a large share of rural households (>50 percent) receive public transfers,¹⁰ while for the rest of the countries the share is generally under 20 percent, and in some cases non-existent. In terms of share of income, from public and private transfers, Figure 8 indicates that private transfers generally dominate again with the exception of Eastern Europe and Guatemala.

Figure 7. Percent of rural households receiving public and private transfers



¹⁰ The percentage in Malawi is driven by the Starter Pack, a nationwide program of distribution of agricultural inputs.

Figure 8. Percent of total income from transfers, by public and private



Rural income generating activities by wealth status

The previous section paints a picture of highly diversified rural economies in all countries considered, with the exception of those in Africa. Along with the heterogeneity in the types of rural income generating activities, there is likely to be significant variation in the returns to the different activities—something explored more fully in section V. For both agricultural and non-agricultural income generating activities, the literature indicates that there is on the one hand a high productivity/high income sub-sector, confined mostly among privileged, better-endowed groups in high potential areas. There are usually significant barriers to entry or accumulation to these high returns segments, in terms of land size and quality, human capital and other productive assets. Entry barriers to the more productive activities may prevent vulnerable groups from participating and seizing the opportunities offered by the more dynamic segments of the rural economy. The relevance of entry barriers may result from a combination of lack of household capacity to make investments in key assets and the relative scarcity of low capital entry economic activities in rural areas (Reardon et al, 2000).

On the other hand, there is usually a low productivity segment which serves as a source of residual income or subsistence food production; a “refuge” for the vast majority of the rural poor. This low productivity segment includes subsistence agriculture, seasonal agricultural wage labor and various forms of off farm self employment. Although very low, the resources generated through these often informal activities provide a “last resort” to ensure food security and complement an inadequate resource base, serving as an indispensable coping mechanism to reduce the severity of deprivation and avoid more irreversible processes of destitution to take place.¹¹

These dual sectors often feed into each other. For those with few assets, seasonal and insufficient income from subsistence agriculture, or lack of access to liquidity/credit, poorly remunerated off farm activities may be the only available option. Households able to overcome financial or asset constraints may diversify or specialize in agricultural and non-agricultural activities, depending not only on access to specific assets but also household demographic characteristics and the functioning of local labor and credit markets. The

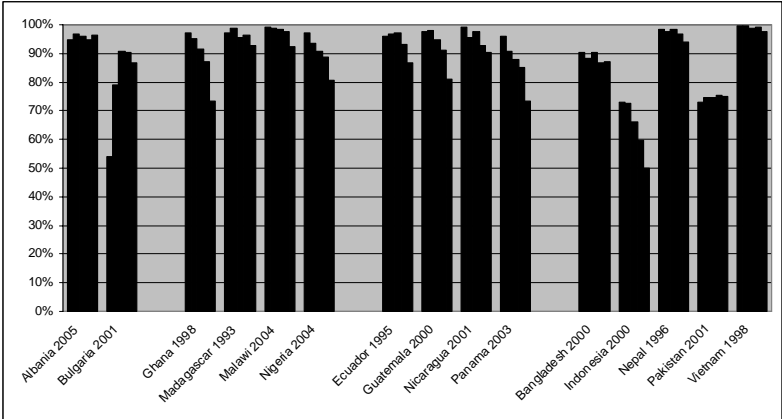
¹¹ See Lanjouw and Lanjouw (2001) and Lanjouw and Feder (2001) for a general discussion relevant to non-farm activities and Fafchamp and Shilpi (2003) for Nepal, Davis and Stampini (2002) for Nicaragua and Azzarri et al (2006) for Malawi, for example, regarding the role of agricultural wage labor.

observed dualism also often appears to be drawn along gender lines, with women more likely to participate in the least remunerated agricultural and non-agricultural activities.

Given the existence of both low and high return rural income generating activities, with varying barriers to access, previous empirical studies—in most cases neither statistically representative nor comparable across countries—have shown a wide variety of results in terms of the relationship of rural income generating activities, and in particular RNF activities, to poverty. Studies reviewed in FAO (1998) found a higher share of RNF income among poorer rural households in Pakistan and Kenya and a higher share among richer households in Niger, Rwanda, Mozambique and Vietnam. More recently, Lanjouw (1999) and Elbers and Lanjouw (2001) for Ecuador, Adams (2001) for Jordan and Isgut (2004) for Honduras find that the poor have a lower share of income from RNF activities than the non-poor, while Adams (2002) finds the opposite for Egypt. De Janvry, Sadoulet and Zhu (2005) for China show that RNF reduces poverty, and particularly the severity of poverty, and that RNF activities have played a key role in falling poverty rates in China, as RNF activities provide an alternative to small landholdings. Conversely, Lanjouw and Shariff (2002) find that the importance of RNF activities by income level varies by state in their study of India. For those states with a high share of income from RNF activities, the shares are greater for better off households; for those states with a lower share of income from RNF activities, the opposite is true. This stems in part from the type of RNF activities associated with poverty status. The share of income from casual wage employment is highest among the poor, while the share from regular wage employment is highest among the rich.

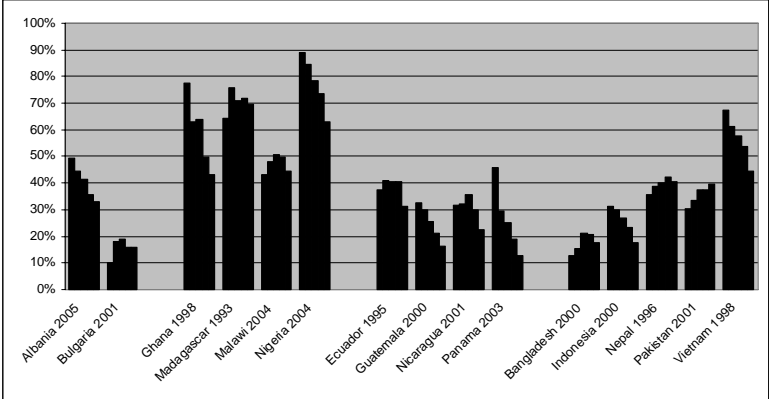
To explore the relationship between rural income generating activities and poverty and identify activities generally associated with wealth, for each country we examine activities by expenditure quintile. The results, presented in the figures in this section, indicate a number of consistent trends across countries in terms of the variation of the importance of different sources of income by household wealth status. Full results, for both means of shares and shares of means, can be found in Tables AIII.1-3 in Appendix III.

Figure 9. Percent of households participating in on-farm activities, by expenditure quintile



Note: expenditure quintiles move from poorer to richer.

Figure 10. Percent of income from on-farm activities, by expenditure quintile



Figures 9 and 10 show, respectively, the participation rates and share of income from on-farm activities. The results indicate country specific relationships between on-farm activity and wealth. In only one country, Bulgaria, does participation in on-farm activities increase with wealth status. In half of the remaining countries participation rates are very high across all quintiles, and in the remaining seven countries there is greater participation among poorer households. On-farm income accounts for a large share of income of poorer quintiles in eight countries (Albania, Ghana, Nigeria, Guatemala, Nicaragua, Panama, Indonesia and Vietnam) is U-shaped for six countries, and only in Nepal and Pakistan does the share of farm income increase with wealth. The differences in results across countries suggest the relationship between agriculture and wealth depends largely on the type of agriculture and the overall social context, though it is difficult to associate country characteristics with these patterns, given the diversity of countries involved. A more detailed country-by-country account is needed to uncover the factors associated with differing household strategies.

Figure 11. Percent of rural households participating in agricultural wage labor, by expenditure quintile

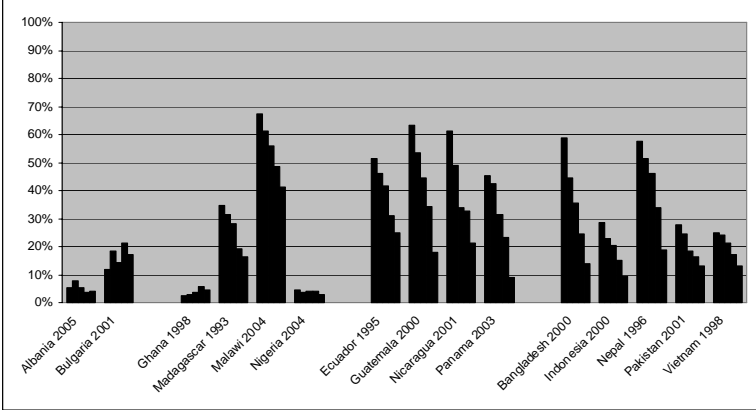
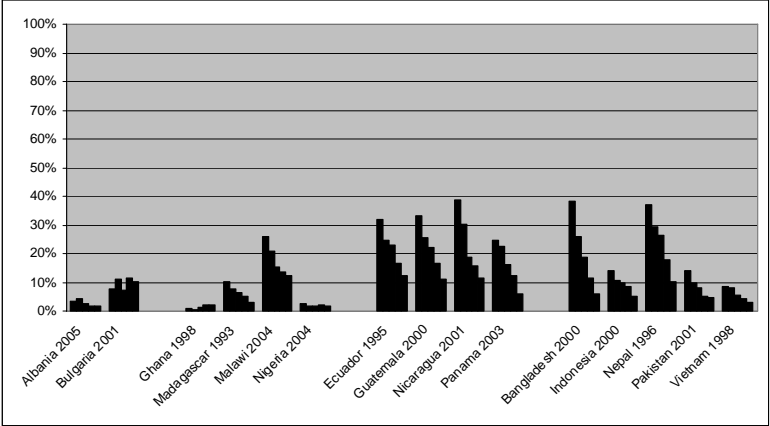


Figure 12. Percent of income from agricultural wage labor, by expenditure quintile



Unlike on-farm activities, agricultural wage labour activity shows a clearer association with wealth status (Figures 11 and 12) across countries. With the exception of four countries (Albania, Bulgaria, Ghana and Nigeria), which for the most part have negligible agricultural labour markets, poorer rural households are more likely to participate in agricultural wage employment. Similarly, the share of income from agricultural wage labor is more important for poorer households in these 11 countries including all of Latin America and Asia.

Figure 13. Percent of rural households participating in non-farm activities, by expenditure quintile

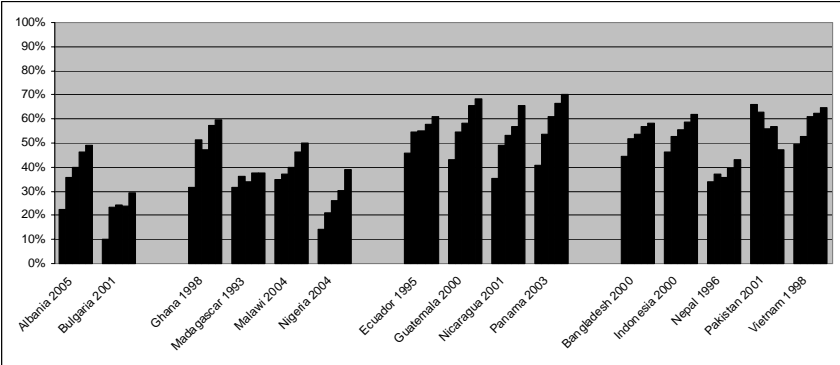
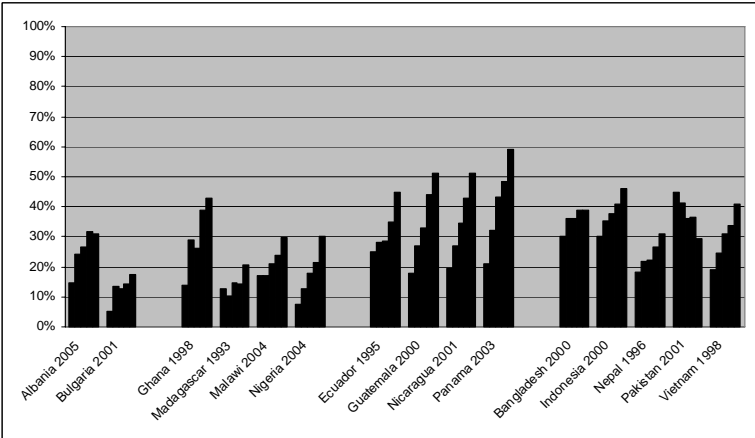


Figure 14. Percent of total income from non-farm activities, by expenditure quintile



In contrast to agricultural wage employment, greater participation in non-farm (wage and self employment) sources of income is associated with greater wealth, for all countries, with the exception of Pakistan (Figure 13). Wealthier households in rural areas have a higher share of income from non-farm activities, and again this is true for all countries, with the exception of Pakistan (Figure 14). Thus while a large percent of better off rural households maintain on-farm production, a key characteristic of these households is greater access to non-farm sources of income.

Finally, transfers to rural households tend not to be progressively distributed. Public transfers to rural households are disproportionately provided to households in poorer quintiles only in Albania, Malawi and Guatemala (Figure 15). In many countries, the relationship is nonlinear or even regressive. For some countries this likely reflects the fact that pensions, which are a key source of public transfers in developing countries, often go to wealthier households. This may also represent poor targeting of programs meant for the poor. Similarly, the percentage of rural households receiving private transfers tends to be regressively distributed (Figure 16). Only in one country, Madagascar, are the households in the poorest quintile most likely to receive private transfers while in almost all other countries households in the richest quintile are most likely to receive transfers.

Figure 15. Percent of rural households receiving public transfers, by expenditure quintile

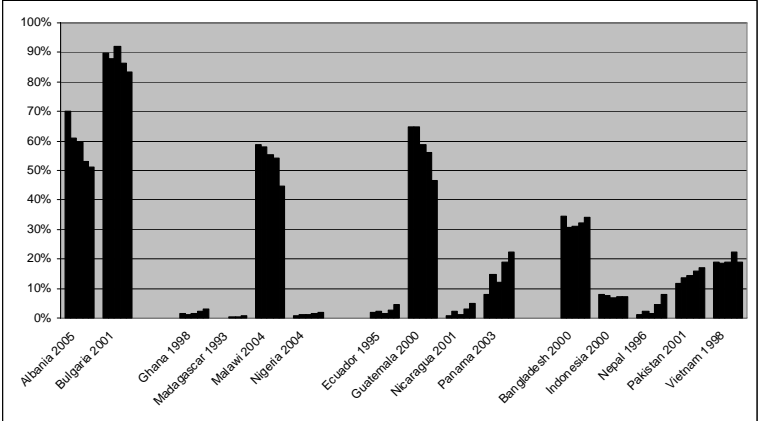
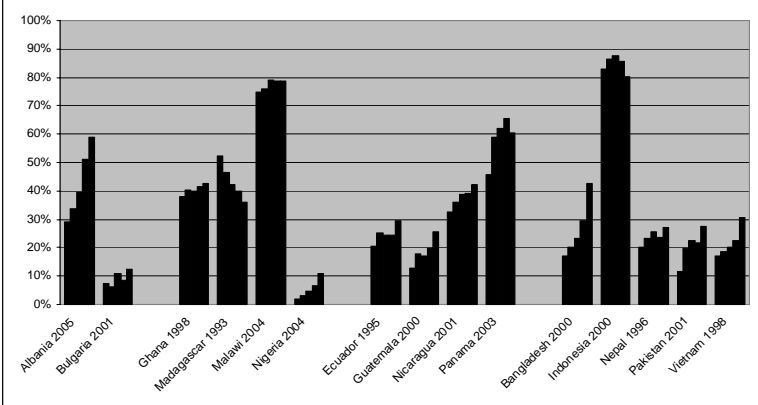


Figure 16. Percent of rural households receiving private transfers, by expenditure quintile



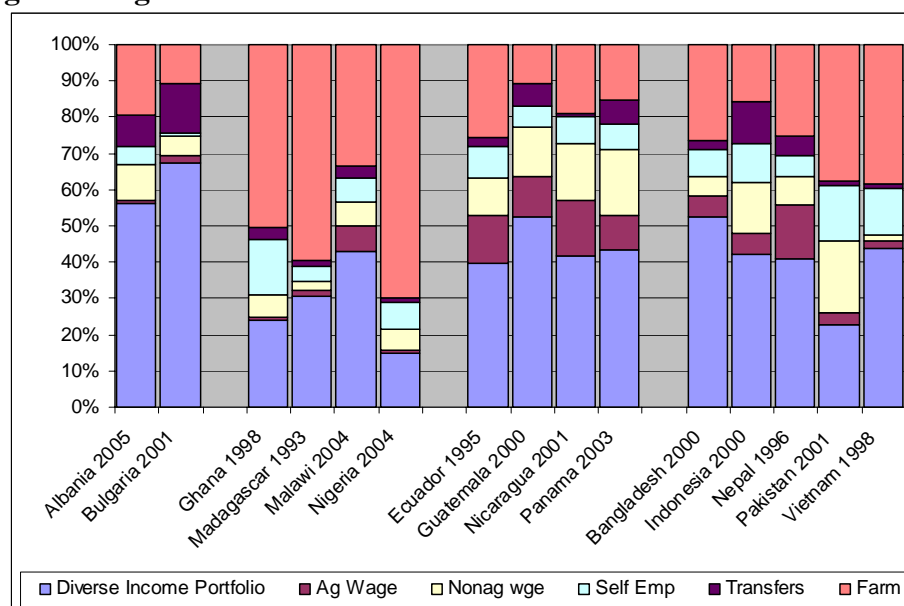
IV. Diversification and specialization of income sources among rural households

The results presented thus far show a highly diversified rural economy and suggest that rural households employ a wide range of activities. The question remains, however, over whether households tend to specialize in activities with diversity in activities across households or, alternatively, whether households themselves tend to diversify their activities thereby obtaining income from a range of activities. To answer this question, we need to establish what constitutes diversification or specialization. We therefore examine the degree of specialization and diversification by defining a household as specialized if it receives more than 75 percent of its income from a single source and diversified if no single source is greater than that amount. This will provide a sense of the degree of specialization and the activities through which households specialize. This typology of diversification and specialization encompasses the income generating activities presented earlier (with crop and livestock income joined together as farm income).

Additional instruments were constructed for gauging diversification and specialization, although the results are not discussed in the main text of this paper. The first is a typology of households similar to that proposed above. This typology has four specialization categories—farming (crop plus livestock income), labour (agricultural wage labour, non-agricultural wage labour and non-agricultural self employment income) and migration (transfers and other income)—plus diversification, again defining a household as specialized if it had more than 75 percent of total income from one of these categories. The farming category is further divided into market and subsistence oriented producers, depending on whether a household sold more than 50 percent of its total output. Tables using this typology can be found in Appendix IV.

The second instrument is a Berger-Parker index of relative income diversity. The Berger-Parker index provides an indication of whether on average households are diversified and can be compared across country and by expenditure quintile within countries. Its usefulness lies in synthesizing the concept of diversity of income sources into one comparable indicator. A more detailed description of this index, plus tables, can be found in Appendix V.

Figure 17. Percentage of rural households with diversified and specialized income generating activities



Note: Diversification is defined as earning no more than 75% of income from a single type of income generating activity. Income activities are defined as agriculture (crop and livestock), agricultural wage, rural non-farm wage, rural non-farm self employment, transfers and other.

The data presented in Figure 17 and Table 2 clearly show that household diversification, not specialization, is the norm. With the exception of a few African countries where it is still common to specialize in farm activities, the largest share of rural households is diversified, earning less than 75% of income from any one activity. In general, when households do specialize in most cases this specialization is in farm activities although in a few notable exceptions—Guatemala and Panama—the dominant form of specialization is in non-agricultural wage employment, while in Bulgaria transfers are dominant.

Table 2. Percent of rural households with diversified and specialized income generating activities.

	Principal Household Income Source (>=75%)						
	Diverse Income Portfolio	Ag Wage	Nonag wge	Self Emp	Transfers	Other	Farm
Albania 2005	55.9%	1.1%	9.6%	5.0%	8.8%	0.4%	19.3%
Bulgaria 2001	67.3%	2.2%	5.3%	0.9%	13.2%	0.1%	10.9%
Ghana 1998	24.0%	0.6%	6.2%	15.4%	3.4%	0.2%	50.1%
Madagascar 1993	30.6%	1.3%	2.8%	4.0%	1.4%	0.4%	59.4%
Malawi 2004	43.0%	7.1%	6.5%	6.7%	3.3%	0.1%	33.3%
Nigeria 2004	14.7%	1.0%	5.5%	7.8%	0.9%	0.2%	69.9%
Ecuador 1995	39.5%	13.1%	10.2%	8.8%	2.3%	0.6%	25.5%
Guatemala 2000	52.5%	10.8%	13.6%	6.1%	5.9%	0.2%	10.9%
Nicaragua 2001	41.7%	15.0%	15.5%	7.5%	0.9%	0.5%	18.9%
Panama 2003	42.6%	9.3%	19.9%	7.1%	6.6%	0.2%	14.3%
Bangladesh 2000	51.1%	5.3%	5.5%	6.9%	2.5%	2.9%	25.8%
Indonesia 2000	41.5%	5.9%	13.9%	10.4%	11.5%	1.1%	15.7%
Nepal 1996	40.8%	14.8%	7.8%	6.0%	5.1%	0.2%	25.2%
Pakistan 2001	22.6%	3.1%	20.1%	14.9%	1.3%	0.4%	37.5%
Vietnam 1998	43.7%	2.1%	1.8%	12.8%	1.2%	0.1%	38.3%

Outlined cells represented the greatest share of households for a given country dataset; shaded cells represent the highest among specializing households.

A rural household may have multiple activities for a variety of reasons: as a response to market failures, such as in credit markets, and thus earning cash to finance agricultural activities, or insurance markets, and thus spreading risks among different activities; failure of any one activity to provide enough income; or different skills and attributes of individual household members. Diversification into rural non-farm activities can reflect activities in either high or low return sectors, as described above. Rural non-farm activities may or may not be countercyclical with agriculture, both within and between years, and particularly if not highly-correlated with agriculture, they can serve as a consumption smoothing or risk insurance mechanism. Thus the results raise an interesting question regarding whether diversification is a strategy for households to manage risk and overcome market failures, or whether it represents specialization within the household in which some members participate in certain activities because they have a comparative advantage in those activities. If the latter is the case and it tends to be the young who are in off-farm activities, diversification may simply reflect a transition period as the household moves out of farm activities.

High levels of diversification at the household level, in any case, do not necessarily signify disengagement from agricultural activities. In all countries except for three in Africa, diversified households account for a least thirty percent of the total value of both marketed and overall agricultural production, as can be seen in Table 3. In six countries, diversified households account for a greater share of the total value of both marketed and overall agricultural production than farm specializing households, and in three of these countries (Bangladesh, Albania and Guatemala) diversified households account for approximately 60 percent of the total value.

Table 3. Value of marketed and total agricultural production, by diversification typology

	Percentage of total value of marketed agricultural production						Percentage of total value of agricultural production					
	Diversified	Farm	Agr Wage	Non-Agr Wage	Self Emp	Transfers & Other	Diversified	Farm	Agr Wage	Non-Agr Wage	Self Emp	Transfers & Other
Africa												
Ghana 1998	21.8	70.8	0.1	1.3	5.7	0.4	22.3	71.2	0.1	1.0	5.2	0.2
Madagascar 1993	21.7	75.3	0.3	0.4	2.1	0.3	17.8	71.3	0.2	0.3	10.3	0.2
Malawi 2004	29.2	67.1	0.6	1.5	1.4	0.2	33.8	59.2	1.6	3.3	1.8	0.3
Nigeria 2004	9.5	86.8	0.6	1.1	1.9	0.1	9.0	88.3	0.5	0.8	1.4	0.1
Asia												
Bangladesh 2000	60.5	18.8	3.2	4.8	5.4	7.3	60.4	16.7	3.6	5.0	5.8	8.5
Indonesia 2000	48.8	41.2	0.6	3.7	3.2	2.5	48.8	41.2	0.6	3.7	3.2	2.5
Nepal 1996	44.0	47.2	2.0	2.8	2.3	1.7	45.4	43.6	2.7	3.5	2.4	2.4
Pakistan 2001	28.4	69.6	0.2	0.7	0.5	0.7	31.0	65.1	0.5	1.2	0.8	1.5
Vietnam 1998	39.0	49.1	0.7	1.0	10.0	0.2	39.9	48.5	0.7	0.9	9.7	0.2
Eastern Europe												
Albania 2005	59.6	31.8	0.8	3.0	2.2	2.6	60.9	28.2	0.8	3.8	3.0	3.2
Bulgaria 2001	32.0	4.0	0.3	4.2	0.0	59.5	40.1	5.2	0.9	3.9	0.1	49.9
Latin America												
Ecuador 1995	42.5	46.3	3.3	3.3	3.1	1.4	44.1	43.7	3.7	3.5	3.8	1.2
Guatemala 2000	59.2	30.3	2.1	2.0	4.5	1.8	61.2	25.9	3.1	2.8	5.4	1.7
Nicaragua 2001	31.9	54.0	4.5	3.7	4.2	1.7	33.9	50.9	4.8	3.6	4.9	1.9
Panama 2003	44.3	34.4	1.8	7.9	9.4	2.2	48.7	31.3	3.4	7.8	6.7	2.3

The empirical relationship between diversification and wealth is thus not straightforward. A reduction in diversification as household wealth increases could be a sign that those at lower income levels are using diversification to overcome market imperfections. Alternatively, a reduction in diversification as household wealth decreases could be a sign of inability to overcome barriers to entry in a second activity thus indicating that poorer households are limited from further specialization. Alternatively, an increase in diversification as household wealth increases could be a sign of using profitability in one activity to overcome threshold barriers to entry in another activity, or complementary use of assets between activities.

Figure 18. Percent of rural households with diversified income portfolio, by expenditure quintile

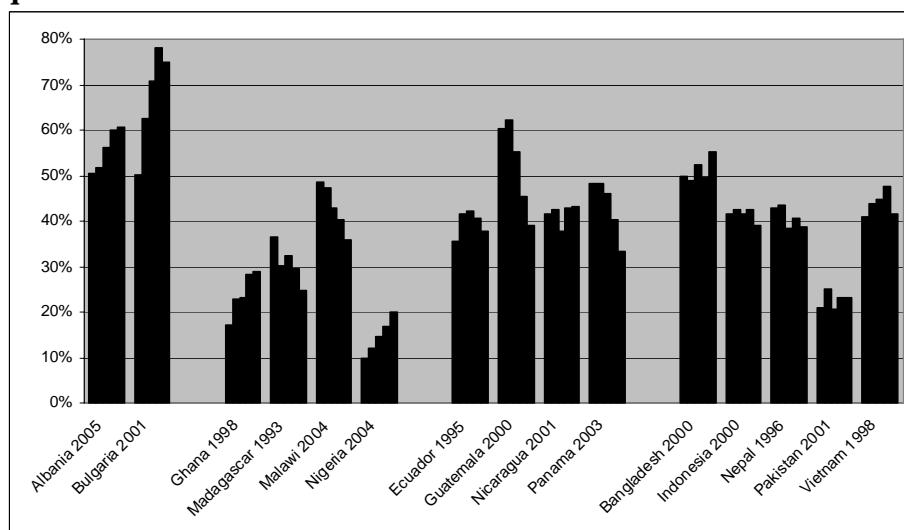


Figure 18 explores the relationship between diversification and expenditure—the proxy used for wealth—while Figures 19-22 examine specialization by activity across expenditure quintile. Diversification of income generating strategies varies little by wealth status in the RIGA countries. In only a few cases (4 of 15), the share of households with diversified sources of income increases with wealth, and in another four countries, diversification decreases with wealth. For the rest, there is not pattern across quintiles. Full results on diversification and specialization can be found in Appendix VI.

Figure 19. Percent of rural households specializing in on-farm activities, by expenditure quintile

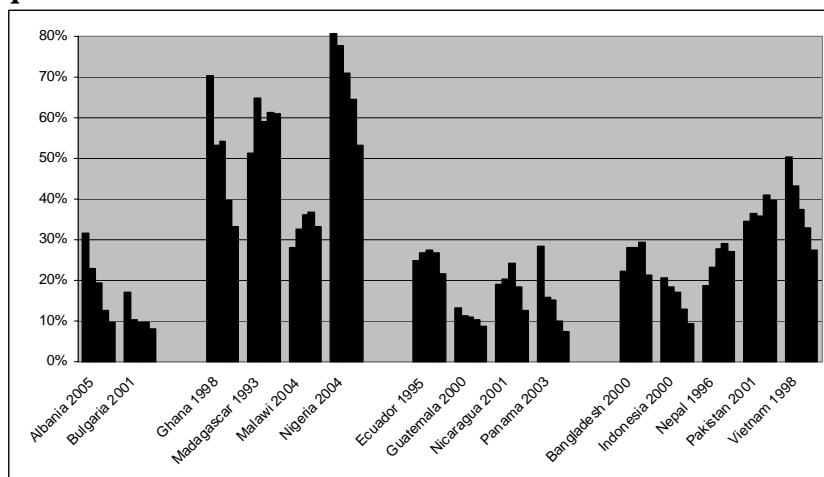
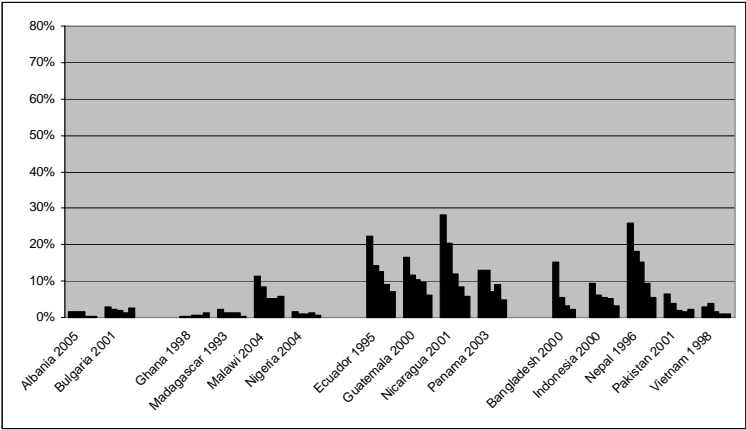


Figure 20. Percent of rural households specializing in agricultural wage labor activities, by expenditure quintile



The extent of specialization in one income generating activity varies by country and wealth status. The most common specialization is in on-farm activities (crop and livestock), although this varies across countries and by wealth status within countries (Figure 19) and it is difficult to find any particular pattern. For over half of the countries (8 of 15), the share of households specializing in on-farm activities decreases with wealth, while for only two countries (Nepal and Pakistan), does the share increase. In countries in which a significant share of the population specializes in agricultural wage labor activities (mostly those in Latin America and Asia), the poorest households tend to specialize in this activity (Figure 20). Conversely, where there is specialization in RNF employment, whether non-agricultural wage or non-agricultural self employment (Figures 21-22), it tends to be those in the higher wealth categories, with the clear exception of Pakistan for non-agricultural self employment. The results confirm the earlier conclusions in that, with few exceptions, agricultural wage employment is associated with poverty and rural non-agricultural activities with wealth.

Figure 21. Percent of rural households specializing in non-agricultural wage activities, by expenditure quintile

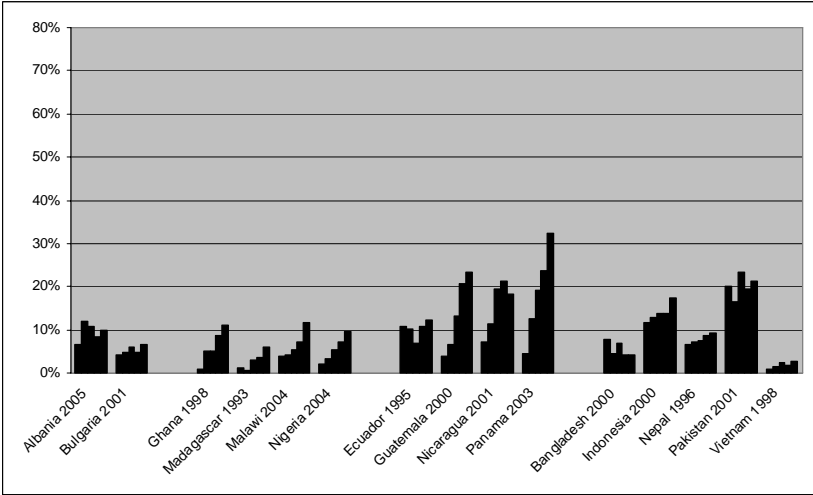
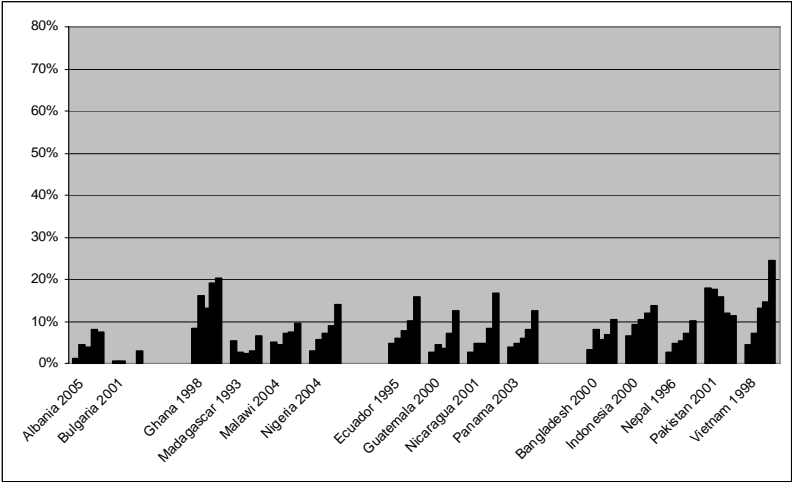


Figure 22. Percent of rural households specializing in non-agricultural self employment activities, by expenditure quintile



V. Correlates of participation in, and returns from, rural income generating activities

The descriptive statistics provide a sense that certain activities may be more likely than others to provide a potential path out of poverty. They also show a clear relationship between the key assets and activity choice. Of course, the opportunities for households in choosing certain paths depend largely on the assets which they possess and the context in which they make their decisions. The objective of this section is to use the RIGA datasets to examine the links between the assets and activities of rural households in order to provide insight into how the promotion of certain assets may influence different pathways out of poverty.

Much of the discussion of the importance of household assets in overcoming poverty is found in the literature on livelihood strategies. Ellis (2000) defines a livelihood as comprising the assets, the activities and the access to these that together determine the living gained by an individual or household. Household assets are defined broadly to include natural, physical, human, public and social capital as well as household valuables. These assets are stocks, which may depreciate over time or may be expanded in terms of their potential for returns through investment. In making decisions on strategies to improve their livelihood position, households consider both the current situation and the long-run livelihood position.

The quantity of an asset owned is not the only determinant of the value and use of that asset to the household. Among other facets, the ownership status and the fungibility of the asset influence its value. Ownership status influences the transferability of an asset. Land that has a clear and transferable title may be sold while human capital, although clearly owned, cannot be transferred. Assets can be productive, in that they can be used as inputs in a productive process, or non-productive, such as household durables. Some assets, such as literacy and numeracy of household members, can potentially be used in a number of productive activities while others, such as farm machinery, tend to be coupled with particular activities. In some cases, such coupling may be the product of specialization and can lead to higher returns. However, the lack of fungibility of coupled assets can result in the asset dictating the path a household takes or in the asset not being used to its full potential.

Based on access to a particular set of assets, the household must decide which economic activities it will employ and the intensity of involvement in that activity. Activities are actions taken by the household to produce outcomes (e.g. income) and may involve the use of a single asset or a set of assets. The decision on the set of activities and the intensity of those activities is conditioned on the context in which the household operates. The context includes natural and human forces and institutions such as markets, the state and civil society. Natural disasters, weather patterns, agricultural pests and other natural forces can have a strong influence on outcomes and create a degree of uncertainty particularly in agricultural yields and prices. Markets influence activities through prices but household decision-making also depends on whether markets function properly or if they include substantial transaction costs which pose a barrier to entry into certain activities. The state influences activities through a variety of past and present actions such as the investment in infrastructure, provision of services, coordination and efficiency of activities, designing, implementing and enforcing laws, regulations and interaction with the private sector and NGOs. Finally, civil society shapes activities because institutions determine the acceptability of and returns to activities, influence the use of assets and establish the rules that govern the use of social capital.¹²

While the context in which a household operates varies both across and within countries, there are a few assets which appear to be closely linked with certain economic activities across a range of contexts. First, land is expected to be closely linked to agricultural production, including both crop and livestock production. It is an asset that is not particularly fungible and has limited direct value in economic activities, except through agricultural production. It may have an indirect value as collateral for credit and thus is potentially linked to other activities. In general, however, those without access to some land are expected, on average, to focus on other economic activities. A similar relationship is expected for agriculturally-linked assets such as farm implements. Given their lack of fungibility, the expectation is that previous investment in these implements will keep households on a path of agricultural production.

Investments in other forms of wealth, on the other hand, are less likely to be linked to agriculture. The human capital of a household, as measured by schooling, is expected to be linked to a shift to non-agricultural activities since this is where the returns are most likely to be highest (Taylor and Yunez-Naude, 2000). This does not necessarily imply there are no returns to education from agriculture, such as there may be in the context of modern agriculture, but that, on average, increased education is likely to lead to a shift away from agricultural activities. Demographic characteristics, particularly the amount of labour available, will also influence activity choice and are likely to lead to an expanded range of activities, particularly in contexts in which land is limited. Finally, access to infrastructure and population centers is likely to increase opportunities in certain areas, particularly in non-agricultural activities because of the proximity to markets. It may also influence the type of agricultural activity possibly leading to a shift to higher value crops for the local urban market which may influence participation in agricultural wage activities.

To understand the relationship between assets and activities, we use econometric techniques to establish the correlates of participation in and returns from rural income generating activities. Given the multiple country nature of the regressions, the choice of variables is limited to a set of variables which are comparable across countries. The first set of variables

¹² Institutions can be defined as a set of ordered relationships among people which define their rights, exposures to the rights of others, privileges and responsibilities (Schmid, 1972).

used in the analysis – schooling, age of household head, family labour size and the gender of the household head – represent the human capital and demographic composition of the household. Schooling is measured by the years of education of the head of household since it gives a good indication of household education and is the most likely measure of schooling to be exogenous to current household activities. Age of the head of household is included to reflect changes that occur in the life cycle of a household as well as a measure of experience. The availability of family labour is likely to influence the range and type of activities in which a household is involved. Family labour is defined in all countries as the total number of household members that are between 15 and 60 years of age. Finally, for the human capital variables we first distinguish whether a household head is female, which generally indicates the head is a widow or the husband is not in the household for reasons such as migration, and second we consider the share of females in total available household labour.

The next set of variables measure household access to natural and physical capital, as well as household wealth. Natural capital is measured by the hectares of land owned. For both agricultural productive assets and household non-productive assets constructing comparable measures was challenging given the range of assets used for production or held as stores of wealth across the countries being analyzed. In both cases, the choice was made to create indices of wealth that would facilitate comparison across countries. Following Filmer and Pritchett (2001), a principal components approach is used in which indices are based on a range of assets owned by households. The choice of assets included depended on the country in question but included assets such as number of livestock owned and assets owned (tractor, thresher, harvester, etc.) for agricultural wealth and household durables (TV, VCR, stove, refrigerator, etc) for non-agricultural wealth. By definition, the mean of these indices is zero.¹³

The literature on rural non-farm activities suggests a positive link between access to infrastructure such as electricity and distance to urban centers so that households that are generally less marginal are more likely to be involved in certain activities. To examine this possibility, we wanted to include a measure of access to infrastructure and markets (i.e., a measure of public capital). The difficulty in doing so is that while most surveys included questions on infrastructure and distances to urban areas of key services, few of the variables are comparable. To address this issue, an infrastructure access index, including both public goods (electricity, telephone, etc.) and distance to infrastructure (schools, health centers, towns, etc.) was created using principle components in a manner similar to the wealth indices. As with the other indices, the variables included in the index varied by country.

i. Assets, participation and income generation

A common approach to analyzing the relationship between assets and activity choice is to examine participation in individual activities using a discrete dependent variable model and then consider the level of income from that activity. When looking at levels of income derived from each activity, there is some concern about the endogeneity of activity choice and thus selectivity bias as well as efficiency in parameter estimates due to the simultaneous nature of activity choice. The approach taken here to deal with bias and inefficiency in parameter estimates follows Taylor and Yunez-Naude (2000) and Winters, Davis and Corral (2002), who use Lee's generalisation of Amemiya's two-step estimator in a simultaneous-equation

¹³ The values of the indices are not strictly comparable across countries, though the method of construction is comparable and in all cases the values go in the same direction: more is better. Thus while for the econometric analysis the sign of the parameter is comparable across countries, the size is not.

model. In this approach, the resulting estimators are asymptotically more efficient than other two-stage estimators, such as the commonly used Heckman procedure. For the econometric analysis, therefore, as a first step participation in the different activity categories is modelled using a range of assets as explanatory variables. In the second step, the level of income is modelled using the simultaneous equation system that includes assets as explanatory variables and the inverse Mill's ratio to control for selectivity bias.

Given the large volume of data analysis conducted for this study, output is organized in summary form. Since our interest is in understanding the correlation between assets and income generating activities, we summarize the results in tables and graphs below. Complete results of the analysis are available upon request from the authors. Note that while all results are presented here and discussed, there is a particular interest in exploring the importance of three key assets—land, schooling and infrastructure—and their relationship to rural income generating activities since they represent three areas in which governments can invest to promote poverty alleviation. By examining the results of the analysis, we can get a sense of which pathways such investments likely to support.

Before proceeding, it is worth noting that it is difficult to attribute causality in the relationship between assets and activities. The country data in the RIGA dataset are cross-sectional, collected for a single 12 month period. For any given asset, determining whether it is possession of the asset itself that leads to participation in an activity is problematic. Consider land, for example. Even if land is quasi-fixed in the short-run, greater land ownership may be the result of previous investment in agriculture and reflect something about a household that makes it more likely to invest in agricultural assets. It then becomes difficult to identify if it is land that leads to greater agricultural involvement or, conversely, the process is driven by unobservable characteristics of the household. For some assets, such as schooling, the schooling of the head of household is used since it is less likely to be problematic than a variable such as highest level of schooling in the household, or mean level of schooling. Even so, in the analysis below we remain cautious about inferring causality. However, given the strength of the results, there does appear to be clear evidence of strong correlations between certain assets and activities, and we do believe these have useful implications for policy.

Land

Land ownership is, of course, closely linked to crop and livestock production and as such is expected to influence the participation in and generation of income from those activities. Ownership of significant quantities of land may also allow households to obtain credit and thus diversify into other rural income generating activities, particularly nonfarm activities. A summary of the impact of the land variable on the probability of participation in, $P(Y_i)$, and the returns to, Y_i activity choice is found in Table 4. In each case, the number of positive and negative significant results—with at least 90 percent confidence—out of 14 countries is presented.¹⁴ In general, the results suggest that the more hectares of land a household owns the greater the probability of participation in on-farm activities (crop and livestock). Not surprisingly, returns are also higher to crop production for those households with more land. In a majority of cases, land ownership is negatively related to participation in and returns from both agricultural wage and non-agricultural wage suggesting that a lack of land pushes households into wage employment. Furthermore, in over a third of countries land ownership size is negatively related to participation and returns to non-agricultural self employment.

¹⁴ Because of questions concerning the land data for Nigeria, it is excluded from this analysis.

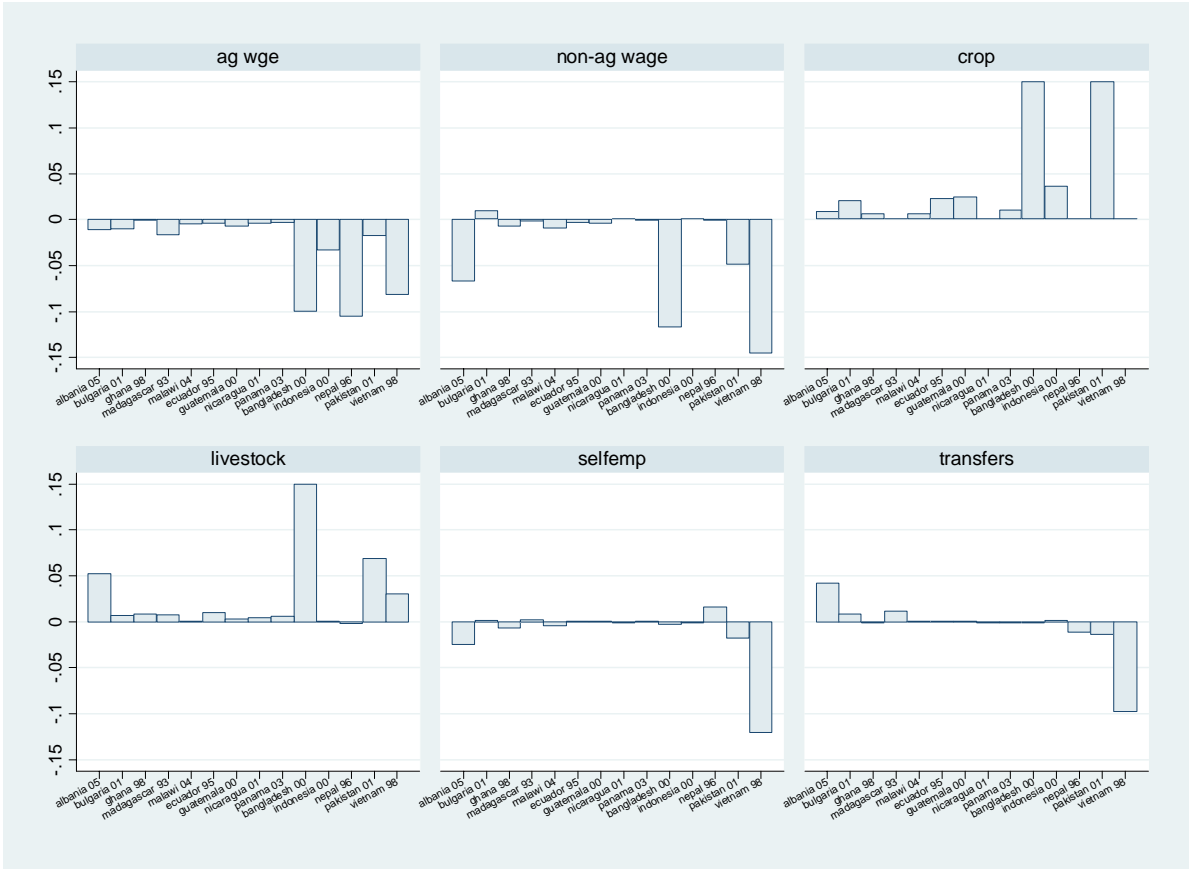
Table 4. Correlates of participation in, and returns from, RIGA: Land ownership

Equation	crops	livestock	agricultural wage labour	non-agricultural wage labour	non-agricultural self employment	transfers
P(Yi)	11/0	9/0	0/11	0/8	1/5	2/3
Yi	8/1	4/0	1/8	0/9	1/7	1/3

Note: Of the fourteen countries analyzed (Nigeria is not included due to concerns about land data), the first number before the backslash indicates the number of countries with **positive and significant** coefficients and the second number after the backslash is the number of countries with **negative and significant** coefficients.

To get a sense of the magnitude of results a graphic representation of the marginal effect of an additional hectare of land on the probability of participation in each activity (evaluated at the sample mean) is presented in Figure 23. The results show a clear negative relationship between land size and the probability of participating in agricultural and non-agricultural wage as well as self employment and a positive relationship with crop and livestock income. Although the direction of changes is largely consistent, the magnitude of the effect clearly varies across country.

Figure 23. Impact of land size on probability of participation in different RIGAs



Note: Nigeria is not included due to concerns about land data. Three values were too high to include in the figures and were truncated at 0.15. They are Bangladesh00 for crops = 0.33, Pakistan01 for crops = 0.42 and Bangladesh00 for livestock = 0.17.

The results are consistent with findings elsewhere. For Mexico, Yunez-Naude and Taylor (2001) find a positive relationship between land size and participation in crop and livestock activities and no relationship between crop income and land size. They do find a positive relationship for land size and livestock income. They also find a negative relationship between land size and participation in wage employment as do Winters, Davis and Corral (2002) for Mexico. Corral and Reardon (2001) for Nicaragua find a positive but diminishing effect of land on total farm income, but also find a negative link to non-farm wage employment participation and income as well as farm wage income. For Egypt, Adams (2002) finds a positive relationship with agricultural and livestock income and a negative relationship to overall non-farm income. A number of other studies show a negative relationship between land size and non-farm employment participation or income including for Chile (Berdegue et al, 2001), Ecuador (Elbers and Lanjouw, 2001), China (de Janvry, Sadoulet and Zhu, 2005; Zhu and Luo, 2005; Zhang and Li, 2001) and India (Lanjouw and Shariff, 2002). Taken together, the results of the analysis and literature suggest, not surprisingly, that not only does larger land size appear to be linked to agricultural production, but is negatively associated with agricultural and non-agricultural wage employment.

Schooling

Investment in schooling is expected to generate a positive return on the income of rural households by increasing their human capital. This does not necessarily mean, however, that the returns to schooling will be uniform across all income generating activities. On the contrary, increased schooling may not only have a differential impact on the returns to certain activities but may also lead to a shift between activities. Taylor and Yunez-Naude (2000), for example, find that for rural Mexico schooling links rural households to new income sources, such as local wage work, and shifts households out of staple crop production and towards cash crops and wage

Table 5. Correlates of participation in, and returns from, RIGA: Schooling of household head

Equation	crops	livestock	agricultural wage labour	non-agricultural wage labour	non-agricultural self employment	transfers
P(Yi)	1/8	5/7	0/11	15/0	4/2	5/3
Yi	5/3	4/4	1/11	12/0	2/2	7/1

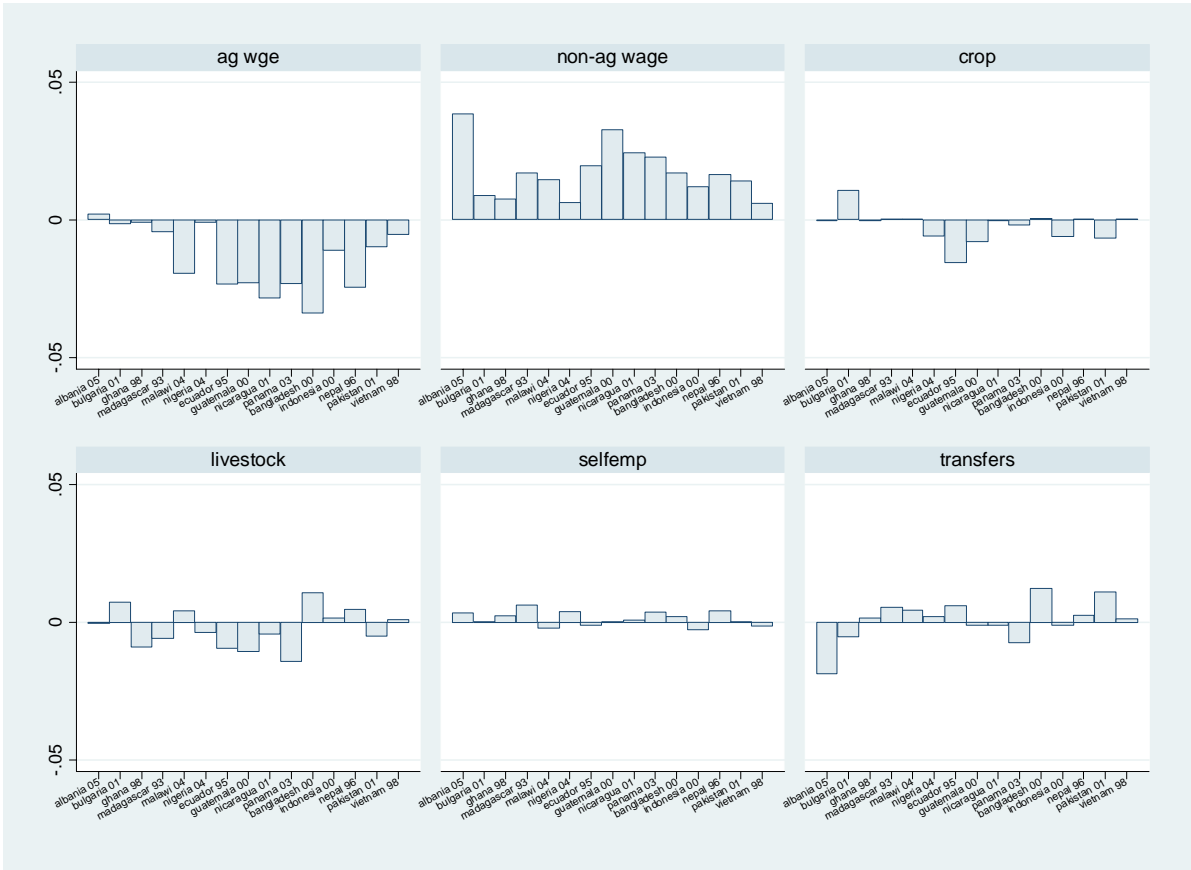
Note: Of the fifteen countries analyzed, the first number before the backslash indicates the number of countries with **positive and significant** coefficients and the second number after the backslash is the number of countries with **negative and significant** coefficients.

Table 5 summarizes the marginal impacts of schooling on the probability of participation in, and returns to, income generating activities. For all countries, schooling is positively and significantly associated with participation in rural non-agricultural wage employment, and for most countries leads to greater returns to non-agricultural wage employment. Further, in most cases schooling is negatively related to participation in agricultural wage activities and leads to a significant reduction in returns from agricultural wage employment. These results reflect those consistently found elsewhere that schooling is linked to a shift to non-farm wage

employment, and that agricultural wage employment is the refuge of the poor and relatively poorly educated.¹⁵ Generally, schooling is found to be negatively associated with participation in crop and in some cases livestock activities, but not necessarily in the returns to those activities for participants.

Figure 24 shows the magnitude of the results across countries reporting the marginal effect of a one year increase in schooling at the sample mean on the probability of participating in different rural income generating activities along with confidence intervals. The results highlight the strong results associated with participation in non-agricultural and agricultural wage activities. Education clearly appears to be a prerequisite for diversification into and getting substantial returns to non-agricultural wage employment. No clear pattern is evident, however, with non-agricultural self employment, reflecting the wider diversity of activities and returns in this type of employment.

Figure 24. Impact of education on probability of participation in different RIGAs



Access to infrastructure

Greater access to infrastructure is assumed to imply a closer proximity to urban centers, and thus that households with greater access to electricity, water, communication, roads and other forms of infrastructure will have a broader range of opportunities compared to those with less

¹⁵ See, for example, Lanjouw, Quizon and Sparrow (2001) for Tanzania, Berdegue et al, (2001) for Chile, Elbers and Lanjouw (2001) for Ecuador, Ferreira and Lanjouw (2001) for Brazil, Winters, Davis and Corral (2002) for Mexico, Corral and Reardon (2001) for Nicaragua, Ruben and Van den Berg (2001) and Isgut (2004) for Honduras, and de Janvry, Sadoulet and Zhu (2005) for China.

access, who may be limited to agricultural activities. Infrastructure is measured using the index described previously and the higher the value of the index, the greater the access to infrastructure, and correspondingly the closer the distance of the household to towns and markets. Table 6 presents the relationship between the infrastructure index and rural income generating activities and Figure 25 shows the magnitude of the marginal effect of an increase in the index on the probability of participating in different rural income generating activities. Access to infrastructure appears positively and significantly associated with participation in, and returns to, rural non-agricultural wage employment in nearly every country, and in most cases with non-agricultural self employment as well.¹⁶ Infrastructure is negatively associated with agricultural wage participation in a majority of cases suggesting that it is a primary activity for those further from urban centers. Not surprisingly, infrastructure access is also negatively associated with participation in crop and livestock production since these activities may occur further from urban centers. However, once accounting for selectivity bias, in a number of countries access to infrastructure is correlated with greater returns to crop and livestock activities, presumably due to better access to markets.

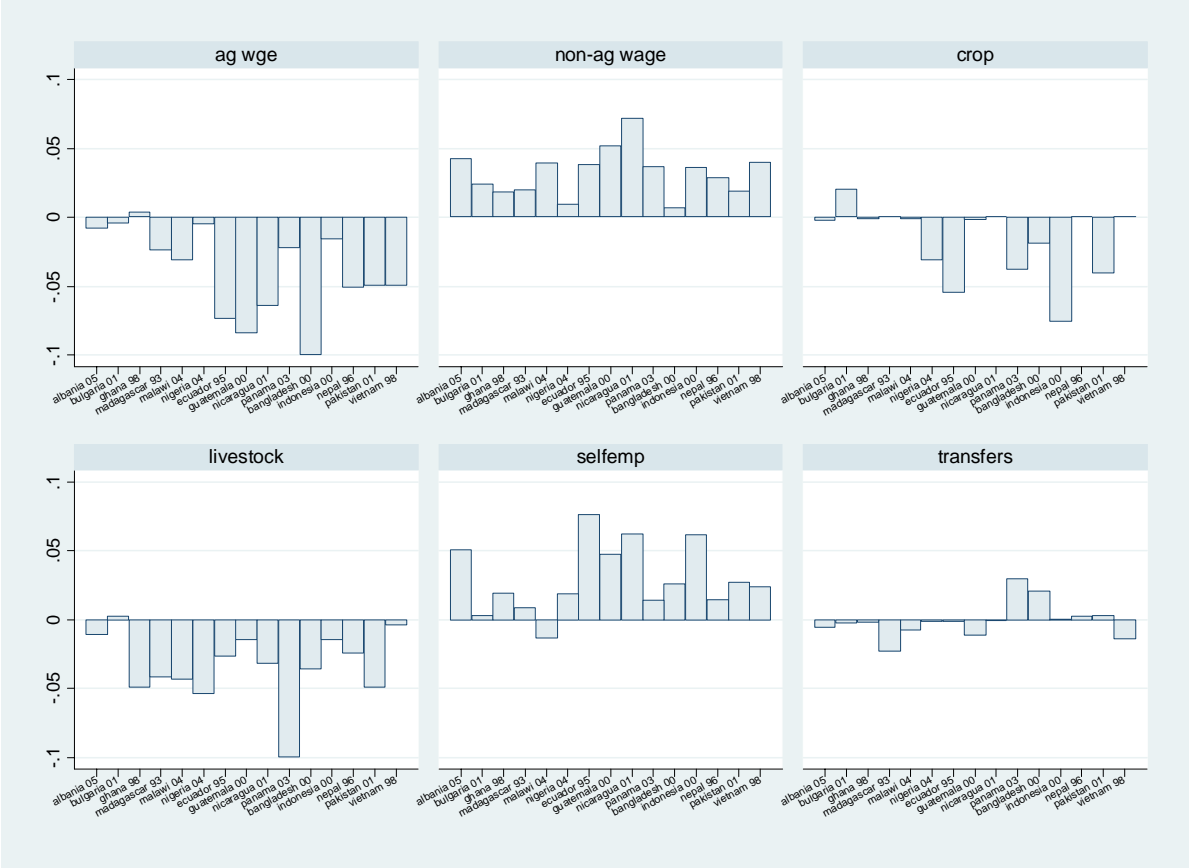
Table 6. Correlates of participation in, and returns from, RIGA: Proximity/infrastructure

Equation	crops	livestock	agricultural wage labour	non-agricultural wage labour	non-agricultural self employment	transfers
P(Yi)	0/10	0/12	0/10	12/0	10/1	3/2
Yi	7/4	6/2	4/5	11/1	7/0	8/0

Note: Of the fifteen countries analyzed, the first number before the backslash indicates the number of countries with **positive and significant** coefficients and the second number after the backslash is the number of countries with **negative and significant** coefficients.

¹⁶ Overall, these results are consistent with a number of studies showing the positive link between infrastructure access and non-agricultural wage employment including Fereria and Lanjouw (2001) for Brazil, Corral and Reardon (2001) for Nicaragua, Araujo (2005) and Winters, Davis and Corral (2002) for Mexico, Fafcham and Shilpi (2003) for Nepal and de Janvry, Sadoulet and Zhu (2005) for China.

Figure 25. Impact of proximity/infrastructure on probability of participation in different RIGAs



Note: Two values were too high to include in the figures and were truncated at 0.10. They are Bangladesh00 for ag wage = -0.11 and Panama03 = -0.20.

Household labour endowment

Rural households with greater labour endowments are expected to be pushed towards off-farm activities since on average they are likely to have higher labour to land ratios. The results are as expected across nearly all countries (Table 7). The more labour available to a household the more likely households are to participate in, and receive higher returns from, all activities, and particularly off farm activities. The exception is transfers, which are often provided to the elderly by the government and via remittances to parents, both of which would tend to have smaller households.

Table 7. Correlates of participation in, and returns from, RIGA: Household labour

Equation	crops	livestock	agricultural wage labour	non-agricultural wage labour	non-agricultural self employment	transfers
P(Yi)	9/0	11/0	13/0	12/2	12/0	1/10
Yi	11/1	6/1	13/1	12/1	8/0	2/8

Note: Of the fifteen countries analyzed, the first number before the backslash indicates the number of countries with **positive and significant** coefficients and the second number after the backslash is the number of countries with **negative and significant** coefficients.

Gender

Demographic characteristics also help explain activity choice. An important aspect of household composition is gender, which we gauge here in two dimensions—the gender of the household head, and the share of women in total household labour. In all countries, for the majority of households a male member of the family is identified as the head of the household, but in each country there is a significant proportion (on average about one-fifth) in which the household head is female. The hypothesis is that in the majority of these cases this reflects a single parent household due to the death of a spouse, separation or migration of the spouse. Evidence often suggests that these households are poorer and more likely to be vulnerable. Table 8 evaluates the results for the analysis of female-headed households. Female headed households are less likely to participate in agricultural activities across all countries, and in a few, although not all, cases a female headed household is also associated with lower returns to agricultural activities. Other than for transfers, the results are mixed across countries for the other economic activities although there appears to be a lower propensity for female-headed households to participate in most activities and to they appear to often earn less from those activities. For transfers, female headed households tend to be more likely to receive transfers and to receive greater amounts of transfers. This suggests that spouses who migrate are likely to remit back to households, and that both private and public transfers are more likely to be targeted or accrue (in the case of pensions) to households where the head of household does not live with the spouse.

Table 8. Correlates of participation in, and returns from, RIGA: Gender of household head

Equation	crops	livestock	agricultural wage labour	non-agricultural wage labour	non-agricultural self employment	transfers
P(Yi)	0/10	0/11	1/9	2/6	3/5	13/0
Yi	4/7	0/3	1/7	4/4	1/5	9/2

Note: Of the fifteen countries analyzed, the first number before the backslash indicates the number of countries with **positive and significant** coefficients and the second number after the backslash is the number of countries with **negative and significant** coefficients.

Table 9 shows the impact of the gender distribution of working age adults on activity choice. A larger share of females is associated with a greater probability of participation in agricultural activities. When female labour is present in some cases there is a lower propensity to participate in agricultural wage and more a propensity to participate in self employment. The returns to both of these however are more often lower for households with a higher female share of labour.

Table 9. Correlates of participation in, and returns from, RIGA: Share of females in household labour force

Equation	crops	livestock	agricultural wage labour	non-agricultural wage labour	non-agricultural self employment	transfers
P(Yi)	8/0	7/0	0/5	3/4	5/1	4/2
Yi	2/4	0/2	0/7	1/5	2/2	5/2

Note: Of the fifteen countries analyzed, the first number before the backslash indicates the number of countries with **positive and significant** coefficients and the second number after the backslash is the number of countries with **negative and significant** coefficients.

Age of the household head

The age of the household head is included to reflect the experience of the household head as well as the effect of the life cycle. Results are presented in Table 10. The age of the household head is associated with a greater probability of participation in agricultural activities, and a lower probability of participation in agricultural and non-agricultural wage labour. Older household heads are also less likely to participate in non-agricultural self employment activities. This may reflect that these households began their path of economic activity prior to the availability of alternatives to agriculture and have generally remained on that path. Thus, they tend to remain in agricultural production while younger heads follow alternative routes to improve their household's well-being. Not surprisingly, similar to female headed households, age is strongly associated with greater participation in, and returns to, transfers.

Table 10. Correlates of participation in, and returns from, RIGA: Age of household head

Equation	crops	livestock	agricultural wage labour	non-agricultural wage labour	non-agricultural self employment	transfers
P(Yi)	8/0	7/1	1/13	0/6	2/8	15/0
Yi	1/7	2/3	0/8	4/6	0/6	12/1

Note: Of the fifteen countries analyzed, the first number (before the backslash indicates the number of countries with **positive and significant** coefficients and the second number after the backslash is the number of countries with **negative and significant** coefficients.

Wealth indices

Variables such as agricultural and household wealth indices partially reflect the household investment of income earned in previous periods. Households that have previously worked in agriculture are much more likely to invest in agricultural production and other households are more likely to invest in other forms of wealth. Given this is the case, the expectation is that households that have invested in agricultural wealth will continue to pursue those activities while those that have invested in non-agricultural wealth will be more likely to focus on non-agricultural sectors. In general, the results correspond to expectations although with notable exceptions (Tables 11 and 12). Households with greater agricultural wealth earn on average more income from crop and livestock activities and are more likely to participate in those activities. The generally negative relationship between agricultural wealth and both agricultural and non-agricultural wage suggest as expected that those that have invested in agriculture are not likely to participate in wage labour.

Table 11. Correlates of participation in, and returns from, RIGA: Agricultural wealth index

Equation	crops	livestock	agricultural wage labour	non-agricultural wage labour	non-agricultural self employment	transfers
P(Yi)	8/4	7/2	1/4	0/8	1/2	2/1
Yi	9/1	7/0	0/7	-	-	-

Note: Of the fifteen countries analyzed, the first number (before the backslash) indicates the number of countries with **positive and significant** coefficients and the second number after the backslash is the number of countries with **negative and significant** coefficients.

The results for non-agricultural wealth also support the idea that households who have invested in non-agricultural wealth are more likely to be in non-agricultural activities. Participation in and returns to non-agricultural wage employment and non-agricultural self-employment are positively and significantly linked to non-agricultural wealth in most cases. Interestingly, in a number of cases agricultural wage is negatively linked to both forms of wealth. This provides additional evidence that in those cases agricultural wage is a refuge sector where only the poorest households participate.

Table 12. Correlates of participation in, and returns from, RIGA: Non-agricultural wealth index

Equation	crops	livestock	agricultural wage labour	non-agricultural wage labour	non-agricultural self employment	transfers
P(Yi)	3/6	4/3	0/9	9/2	14/0	6/0
Yi	-	-	-	10/3	9/0	10/1

Note: Of the fifteen countries analyzed, the first number (before the backslash) indicates the number of countries with **positive and significant** coefficients and the second number after the backslash is the number of countries with **negative and significant** coefficients.

Ethnicity

Information on ethnicity and religion is available only for a few countries. In the case of ethnicity, we find that indigenous households have a higher probability of participating in crop and agricultural wage labour activities in Guatemala while in Panama they have a lower probability of participation in non-agricultural wage employment as well. For those countries where we can compare Muslim with non-Muslim populations (Albania, Malawi, Nigeria, Indonesia and Bangladesh), no discernable patterns are evident, due most likely to the widely varying socio-economic contexts of religion in these countries.

Summary

Overall, the characteristics of households participating in different income generating activities are surprisingly similar across very different countries. Given these results it is possible to describe in broad terms the characteristics of households participating in different income generating activities over these 15 country datasets. Households participating in on-farm activities own land, have lower levels of education, are located at a distance from infrastructure facilities, and have on average an older, male headed household with a greater share of female household members. Households participating in non-agricultural wage labour have, above all, higher levels of education, but also are located closer to infrastructure, with a younger head of household and a larger family. Households participating in agricultural wage labour have little land or education, are isolated from infrastructure, and have younger, and primarily male, head of household. Finally, households participating in transfers are more likely to have older and female heads of household, with smaller household sizes.

VI. Decomposition of inequality by income source

One concern with the increasing importance of rural non-farm activities is the exacerbation of income inequality in the rural space. Income inequality, which has been on the rise in many parts of the developing world, has come under increased scrutiny as a potential brake on economic growth. While most of this literature has looked at economy wide effects, one source of this income inequality may stem from changes in the rural economy. Given the often higher returns in the rural non-farm economy, and the key role of access to specific private and public assets, in particular education, the hypothesis is that rural non-farm activities are likely to be inequality increasing. However, the answer may depend on where a particular country or region is located in the development process, and at which point in the stages of growth of rural non-farm economy. Further, the answer may also depend on the relative access to different assets, for example Adams' (2001) comment that in land rich and labor-poor situations (such as parts of Africa), agricultural income is inequality reducing and rural non-farm income inequality increasing, while in land poor and labor rich situations (for example parts of Latin America or Asia), agricultural income is inequality increasing and rural non-farm income inequality decreasing,

Few consistent patterns, however, have emerged in the literature regarding the impact of RNF activities on inequality. Reflecting conventional wisdom, studies by Elbers and Lanjouw (2001) in Ecuador, Adams (2001) in Jordan, Burgess (1997) in China, Reardon and Taylor (1996) in Burkina Faso and Collier et al (1986) in Tanzania indicate that RNF income may be, in fact, inequality increasing. While participation in rural non-farm activities may improve rural income as a whole, there are barriers to this participation associated with access to

certain assets—particularly education—thus leading to increased income disparities, particularly in poorer areas.

Conversely, Adams (1995) in Pakistan, Lanjouw (1999) in Ecuador, Adams (2002) in Egypt, Chinn (1979) in Taiwan and de Janvry, et al (2005) in China find that nonfarm income is associated with a reduction in overall rural income inequality in those countries. This is often attributed to the lack of access of poorest households to the key productive asset in rural areas—land. De Janvry, et al (2005), in a study on China, show that participation in non-farm activities was associated with greater improvement in the income of the poorest households, while the most proficient farmers remained in agriculture.

Some of these differences in outcomes may be due to differences in types of household data, as well as definitions of what consists of rural non-farm activities. Further, due to the time dimension, the relationship between inequality and RNF activities may be U-shaped; that is, at initial stages of development RNF activities are inequality increasing but as the sector develops and expands RNF activities are inequality decreasing.

Description of decomposition of Theil index

The objective of this section is thus to determine if growth in rural non-farm activities leading to increased inequality, or more broadly, ascertain the role of each type of rural income generating activity in reducing or increase household income inequality. We chose the Theil index over its better known competitor, the Gini index, because we felt that the Thiel index provides a cleaner and more intuitive decomposition of income inequality by income source. We estimate the Theil T inequality index for total income and the components of total income following the approach described by Morduch and Sicular (1998). This measure gives a measure of inequality that accounts for the population share of each individual as well as the share of income in total income for the individual level of observation. The following equation describes how the Theil for each income component is obtained, where $1/n$ represents the population share of each observation, y_i^k is the individual-level income from component k , μ_y is the mean total per capita income (such that y_k/μ_y is the proportion of individual-level income from component k to total average income), and y_i is total per capita income:

$$T(Y^k) = \sum_{i=1}^n \left\{ \left(\frac{1}{n} \right) * \left(\frac{y_i^k}{\mu_y} \right) * \ln \left(\frac{y_i}{\mu_y} \right) \right\}$$

The sum of the component Theils ($T(Y^k), k = 1 \dots K$) is then equal to the overall Theil T index, $T(Y)$, illustrated by the following equation:

$$T(Y) = \sum_{i=1}^n \left\{ \left(\frac{1}{n} \right) * \left(\frac{y_i}{\mu_y} \right) * \ln \left(\frac{y_i}{\mu_y} \right) \right\}$$

A Theil index of zero indicates equality since it implies that the share of income held by each individual is equal to the individual's population share (such that y_i/μ_y equals 1 and its logarithm equals zero). The larger the value of the Theil index, the greater the inequality, such

that the value of the overall index is restricted to the range $[0, \ln(n)]$ where n is the sample size. When the Theil is decomposed into its components, the index is subject only to an upper bound such that: $T(Y^k) \leq \ln(n)$. A negative index, $T^k \leq 0$, would then indicate an inequality reducing effect for component k , whereas a positive index, $0 \leq T(Y^k) \leq \ln(n)$, indicates an inequality increasing effect, with the effect growing as $T(Y^k)$ approaches $\ln(n)$. Equality is still represented by $T(Y^k) = 0$.

Results

In contrast with the diversity of results presented above, non-farm sources of income are associated with increasing income inequality. In almost all countries under study non-agricultural wage and self employment income are inequality increasing, and in fact in terms of magnitudes, self employment, followed by wage employment, are responsible for the largest share of income inequality in most countries (Table 13). Where rural non-farm activities are not responsible for largest share, most notably in Pakistan and Malawi, crop incomes drive the results, and in Nigeria and Bulgaria agricultural wage income is deriving inequality. Even in these last two countries, non-agricultural wage income still accounts for a large share of income inequality. Besides Malawi already mentioned, in the other three African countries crop incomes account for a relatively large share of income inequality. Otherwise, for most countries, sources other than non-agricultural wage and self employment are more or less neutral in terms of income inequality.

Table 13. Percent contribution of income sources to total inequality, Theil index (positive reflects inequality increasing; negative reflects inequality decreasing).

	Crop2	Livestock	Ag Wage	Non-Ag Wage	Self Emp	Transfers	Public Transfers	Private Transfers	Other	Total
Albania 2005	-5.4%	-11.7%	4.1%	28.2%	<u>82.5%</u>	1.0%	-5.5%	6.4%	1.2%	100.0%
Bulgaria 2001	6.7%	11.0%	<u>29.7%</u>	28.0%	7.2%	16.7%	12.6%	4.1%	0.8%	100.0%
Ghana 1998	18.4%	1.1%	1.6%	15.4%	<u>61.2%</u>	2.3%	0.1%	2.2%	0.0%	100.0%
Madagascar 1993	32.3%	12.1%	0.7%	-0.5%	<u>52.2%</u>	1.1%	0.2%	0.9%	2.0%	100.0%
Malawi 2004	<u>93.1%</u>	-0.3%	-1.9%	8.6%	2.4%	-1.8%	-0.8%	-1.0%	0.0%	100.0%
Nigeria 2004	13.0%	0.6%	<u>41.9%</u>	35.2%	8.9%	0.2%	0.1%	0.0%	0.2%	100.0%
Ecuador 1995	2.6%	1.1%	8.4%	24.0%	<u>55.9%</u>	2.8%	0.6%	2.2%	5.2%	100.0%
Guatemala 2000	-5.5%	0.9%	3.5%	<u>55.6%</u>	37.6%	4.6%	-2.3%	6.9%	3.2%	100.0%
Nicaragua 2001	-4.3%	1.0%	7.6%	42.6%	<u>42.7%</u>	4.2%	0.8%	3.3%	6.3%	100.0%
Panama 2003	-6.4%	0.1%	6.0%	<u>67.0%</u>	24.9%	6.5%	7.0%	-0.5%	1.9%	100.0%
Bangladesh 2000	-0.2%	0.2%	-9.3%	17.0%	<u>55.5%</u>	31.9%	2.4%	<u>29.5%</u>	5.0%	100.0%
Indonesia 2000	0.7%	1.8%	6.6%	<u>53.0%</u>	32.4%	3.3%	1.4%	1.9%	2.3%	100.0%
Nepal 1996	2.3%	12.2%	-2.0%	27.1%	<u>44.3%</u>	13.3%	3.4%	10.0%	2.8%	100.0%
Pakistan 2001	<u>57.1%</u>	1.5%	-2.9%	4.0%	24.6%	2.2%	0.0%	2.2%	13.5%	100.0%
Vietnam 1998	-7.5%	-4.0%	-2.0%	1.5%	<u>111.9%</u>	0.0%	-0.3%	0.2%	0.2%	100.0%

Positive percent contribution greater than 10 percent is shaded in yellow; negative in blue; highest contributor is underlined.

VII. Conclusion

The analysis of the income generating activities of rural households from the RIGA cross country dataset paints a clear picture of multiple activities across rural space and diversification across rural households. This is true across countries in all four continents, though less so in the African countries included in the dataset. For most countries the largest share of income stems from off farm activities, and the largest share of households have diversified sources of income. Diversification, not specialization, is the norm, although most countries show significant levels of household specialization in non-agricultural activities as well. Nevertheless, agricultural based sources of income remain critically important for rural

livelihoods in all countries, both in terms of the overall share of agriculture in rural incomes as well as the large share of households that still specialize in agricultural sources of income.

From where does this diversification derive? Diversification may function as a strategy for households to manage risk and overcome market failures, or represent specialization within the household deriving from individual attributes and comparative advantage. If the latter is the case and it tends to be the young who are in off-farm activities, diversification may simply reflect a transition period as the household moves out of farm activities. Diversification into rural non-farm activities can thus be into either high or low return sectors, reflect push or pull forces, and represent a pathway out of poverty or a survival strategy.

While the nature of the diversification response will vary by a given household, in each country, overall greater reliance on non-farm sources of income is associated with greater wealth. In almost all cases, wealthier households in rural areas have a higher level of participation in, and greater share of income from, non-farm activities, while both public and private transfers tend to be regressively, or neutrally, distributed. Similarly, wealthier households have a larger share of specialization into non agricultural wage and self employment activities.

Conversely, agricultural based sources of income are generally most important for the poorest households. Income from crop and livestock activities, as well as from agricultural wage labor, represents a higher share of total income for poorer households in almost all countries. Furthermore, a higher share of households specializing in on-farm activities or agricultural wage employment is found at the low end of the wealth distribution.

As would stand to follow from these trends, non-farm sources of income are associated with increasing income inequality. In almost all countries under study, non-agricultural wage and self employment income are inequality increasing, and in fact in terms of magnitudes, self employment, followed by wage employment, account for the largest share of income inequality in most countries.

These results are not uniform among all countries and Pakistan, for example, is the one country which bucks most of these trends. Greater share of agricultural sources of income, and greater specialization in agricultural activities, are associated with wealth, while the opposite is true for non-farm employment. Similarly, crop income is inequality increasing in Pakistan. These trends may be due to the particularly strong unequal land access in Pakistan, and in particular the large number of landless among the poor, with the landless forced to low return wage employment, both agricultural and non-agricultural.

Overall, the characteristics of households participating in different income generating activities are surprisingly similar across very different countries. Households participating in on-farm activities are landed, with lower levels of education, located at greater distances from infrastructure, with an older, male headed household. Conversely, households involved with non-agricultural wage labor have, overall, higher levels of education, but also are located closer to infrastructure, with a younger head of household and a larger family. Households participating in agricultural wage labor have little land or education, are isolated from infrastructure, and have a younger, and primarily male, head of household. Finally, households relying more on transfers are more likely to have older and female heads of household.

The linking of assets with specific income generating activities is an indication of increasing specialization of households in a given income generating activity over time, and as they seek to leave poverty, in most countries as part of a general transition away from agriculture. One key lesson from this analysis is the need to reduce constraints to participation in the non-farm sector, both in terms of increasing demand through provision of education and other measures to enhance human capital, as well as through increasing supply of labor opportunities, locally, or elsewhere, through migration. A second lesson is the continued importance of agricultural sources of income, particularly for poorer households. This idea, combined with recognition that a large share of rural non-farm opportunities are often directly or indirectly generated by agriculture, requires renewed emphasis on this sector.

For policy makers, the results offered here suggest the need to carefully consider how to promote rural development. While the diversification of rural households clearly indicates the need to look beyond agriculture in rural development policies, the overall importance of agriculture, particularly for poorer households, suggests that the promotion of rural non-farm activities ought to constitute a key component of any strategy. Policy makers must also be careful that any intervention deal with the likelihood that barriers to entry may limit the ability of poor households to take advantage of opportunities, particularly the most remunerative, and thus exacerbate inequalities. The links between certain assets and activities imply that due consideration be given to those assets, or combination of assets, which will ensure broad growth in the rural economy. This complexity means that a particular policy is unlikely to fit different situations across countries and even within regions in a given country and that location specific policies are necessary. This ultimately calls for an institutional structure that allows for the diversity of policy measures to match closely the diversity of the rural economy.

References

- Adams, R. (1995) "Sources of Income Inequality and Poverty in Rural Pakistan," *Research Report 102* Washington, DC: International Food Policy Research institute.
- Adams, R. (2001) "Non-Farm Income, Inequality and Poverty in Rural Egypt and Jordan," Policy Research Working Paper 2572, Washington DC: The World Bank.
- Adams, R. (2002) Nonfarm Income, Inequality and Land in Rural Egypt. *Economic Development and Cultural Change* 50(2): 339-363.
- Araujo, C. (2005) Spatial patterns of non-agricultural rural employment growth in Mexico during the 90s. Manuscript.
- Azzari, C., Carletto, C., Davis, B., Fatchi, T. and Vigneri, T (2006) "Food and Nutrition Security in Malawi", Background paper prepared for the World Bank Malawi Poverty and Vulnerability Assessment, Rome, March.
- Barrett, C., Reardon, T. and Webb, P. (2001) "Nonfarm Income Diversification and Household Livelihood Strategies in Rural Africa: Concepts, Dynamics and Policy Implications" *Food Policy* 26(4).
- Berdegue, J., Ramirez, E., Reardon, T. and Escobar, G. (2001) Rural Nonfarm Employment and Incomes in Chile. *World Development* 29(3): 411-425.
- Burgess, R. (1997) Diversification and Welfare in Rural China" Mimeo, London School of Economics.
- Carletto, G., Covarrubias, K. and Krausova, M. (2007) "Rural Income Generating Activities (RIGA) Study: Income Aggregate Methodology," Agricultural Sector in Economic Development Service, Food and Agriculture Organization.
- Chenery, H. and M. Syrquin (1975). Patterns of Development. Oxford University Press, London.
- Chinn, D. (1979) "Rural Poverty and the Structure of Farm Household Income in Developing Countries: Evidence from Taiwan," *Economic Development and Cultural Change* 27:283-301.
- Collier, P., Radwan, S. and Wangwe, S. (1986) *Labour and Poverty in Rural Tanzania*. Oxford: Clarendon Press.
- Corral, L. and Reardon, T. (2001) Rural Nonfarm Incomes in Nicaragua. *World Development* 29(3): 427-442.
- Davis, B and Stampini, M. (2002) "Pathways towards prosperity in rural Nicaragua; or why households drop in and out of poverty, and some policy suggestions on how to keep them out," ESA Working Paper 10-02, (Rome: FAO).
- de Janvry, A., Sadoulet, E. and Zhu, N. (2005) The Role of Non-Farm Incomes in Reducing Poverty and Inequality in China. CUDARE Working Paper 1001, University of California, Berkeley.
- Elbers, C. and Lanjouw, P. (2001) Intersectoral Transfer, Growth and Inequality in Rural Ecuador. *World Development* 29(3): 481-496.
- Ellis, F. (2000). *Rural Livelihoods and Diversity in Developing Countries*. Oxford: Oxford University Press.

- Fafchamp, M. and Shilpi, F. (2003) The Spatial Division of Labour in Nepal. *Journal of Development Studies*, 39(6), pp. 23-66.
- FAO (1998) *The State of Food and Agriculture: Rural Non-Farm Income in Developing Countries*. Rome: Food and Agriculture Organization.
- Ferreira, F. and Lanjouw, P. (2001) rural Non-farm Activities and Poverty in the Brazilian Northeast. *World Development* 29(3): 509-528.
- Filmer, D. and L. Pritchett. (2001) Estimating wealth effects without expenditure data – or tears: An application to educational enrolments in states of India. *Demography* 38(1): 115-132.
- Haggblade, S., Hazell, P. and Reardon, T. (2005) Transforming the Rural Nonfarm Economy, mimeo
- Isgut, A. (2004) Non-farm Income and Employment in Rural Honduras: Assessing the Role of Locational Factors. *Journal of Development Studies* 40(3):59-86.
- Lanjouw, P. and Shariff, A. (2002) Rural Non-Farm Employment in India: Access, Income and Poverty Impact. NCAER Working Paper Series No. 81, New Delhi: NCAER.
- Lanjouw, P., Quizon, J. and Sparrow, R. (2001) Non-agricultural earnings in peri-urban areas of Tanzania: evidence from household survey data. *Food Policy* 26:385-403.
- Lanjouw, P. (1999) “Rural nonagricultural Employment and Poverty in Ecuador.” *Economic Development and Cultural Change*. 48(1): 91.
- Lanjouw, P. and Feder G. (2001) “Rural Nonfarm Activities and Rural Development: From Experience towards Strategy,” *Rural Development Strategy Background Paper #4*, Washington, DC: The World Bank.
- Lanjouw, J. and Lanjouw, P. (2001) “The Rural Nonfarm Sector: Issues and Evidence from Developing Countries,” *Agricultural Economics* 26(1): 1-23.
- Morduch, Jonathan and Terry Sicular. 1998. “Rethinking Inequality Decomposition, with Evidence from Rural China.” Development Discussion Paper No. 636. Harvard Institute for International Development, Harvard University. May.
- Reardon, T. and Taylor, J. E. (1996) “Agroclimatic Shock, Income Inequality, and Poverty: Evidence from Burkina Faso.” *World Development* 24(4): 901-914.
- Reardon, T., Taylor, J. E., Stamoulis, K., Lanjouw P. and Balisacan A. (2000) “Effects of Non-Farm Employment on Rural Income Inequality in Developing Countries: An Investment Perspective,” *Journal of Agricultural Economics* 51(2):266-288.
- Reardon, T., Berdegue, J. and Escobar, G. (2001) Rural Nonfarm Employment and Incomes in Latin America: Overview and Policy Implications. *World Development* 29(3): 549-560.
- Ruben, R. and Van den Berg, M. (2001) Nonfarm Employment and Poverty Alleviation of Rural farm Households in Honduras. *World Development* 29(3): 549-560.
- Schmid, A. (1972). Analytical Institutional Economics: Challenging Problems in the Economics of Resources for New Environment. *American Journal of Agricultural Economics* 54:893-901.
- Smale, Melinda, ed. (2006) Valuing Crop Biodiversity: On-Farm Genetic Resources and Economic Change. Wallingford, UK: CABI Publishing.

- Taylor, J. E., and Yunez-Naude, A. (2000). The Returns From Schooling in a Diversified Rural Economy. *American Journal of Agricultural Economics* 82(2), 287-297.
- Winters, P., Davis, B. and Corral, L. (2002). Assets, Activities and Income Generation in Rural Mexico: Factoring in Social and Public Capital. *Agricultural Economics* 27(2): 139-156.
- Yunez-Naude, A. and Taylor, J. E. (2001) The Determinants of Nonfarm Activities and Incomes in Rural households in Mexico with an Emphasis on Education. *World Development* 29(3), 561-572.
- Zhang, X. and Li. J. (2001) Does *Guanxi* Matter to Non-Farm Employment? *EPTD Discussion Paper 74*, Washington, DC: IFPRI
- Zhu, N. and Luo, X. (2005) Impacts of Non-farm Income on Inequality and Poverty: The Case of Rural China. Manuscript.

Appendix I

Table AI.1. Countries and data sources for analysis

Country	Name of Survey	Year Collected	Number of Observations		
			Total	Rural	Urban
Albania	Living Standards Measurement Study Survey	2005	3,640	1,640	2,000
Bangladesh	Household Income-Expenditure Survey	2000	7,440	5,040	2,400
Bulgaria	Integrated Household Survey	2001	2,633	877	1,756
Ecuador	Estudio de Condiciones de Vida	1995	5,810	2,532	3, 278
Ghana	Ghana Living Standards Survey Round Three	1998	5,998	3,799	2,199
Guatemala	Encuesta de Condiciones de Vida	2000	7,276	3,852	3,424
Indonesia	Family Life Survey- Wave 3	2000	7,216	3,786	3,430
Madagascar	Enquête Permanente Auprès des Ménages	1993-1994	4,505	2,653	1,852
Malawi	Integrated Household Survey-2	2004-2005	11,280	9,840	1,440
Nepal	Living Standards Survey I	1995-1996	3,370	2,655	715
Nicaragua	Encuesta de Medición de Niveles de Vida	2001	4,191	1,839	2,352
Nigeria	Living Standards Survey	2004	3,373	2,657	716
Pakistan	Integrated Household Survey	2001	15,927	9,978	5,949
Panama	Encuesta de Niveles de Vida	2003	6,363	2,945	3,418
Vietnam	Living Standards Survey	1997-1998	6,002	4,272	1,730

Appendix II

Table AII.1. Household participation in rural income generating activities

Country and year	Income-generating activity														
	Group I							Group II			Group III			Group IV	
	1	2	3	4	5	6	7	1+2+3	4+5+6+7						
	Agriculture- Crops	Agriculture - Livestock	Agricultural wage employment	Non-farm wage employment	Non-farm self- employment	Transfers	Other	Agricultural total	Non- Agricultural Total	On-Farm Total	Non-farm total	Transfers & Other	Off-farm Total	Transfers Public	
Albania 2002	91.8%	86.1%	4.7%	27.9%	9.7%	67.8%	3.7%	93.2%	85.2%	92.9%	35.4%	68.8%	86.8%	56.9%	
Albania 2005	94.9%	85.4%	5.3%	30.1%	10.9%	74.4%	18.8%	95.6%	90.3%	95.4%	38.8%	75.7%	91.9%	58.9%	
Bulgaria 1995	84.6%	86.5%	18.1%	22.8%	2.7%	80.0%	21.8%	92.4%	89.4%	91.4%	24.6%	82.1%	92.5%	76.3%	
Bulgaria 2001	68.3%	65.2%	16.5%	20.2%	2.4%	89.3%	12.5%	80.2%	94.3%	76.3%	22.2%	90.6%	96.8%	87.9%	
Ghana 1992	87.2%	54.0%	3.8%	13.8%	45.0%	36.7%	6.1%	88.2%	73.2%	87.8%	53.9%	40.3%	74.8%	3.0%	
Ghana 1998	87.8%	51.4%	3.7%	17.7%	40.1%	41.3%	13.5%	88.9%	74.7%	88.7%	49.3%	48.5%	75.9%	1.9%	
Madagascar 1993	93.4%	78.0%	26.0%	18.2%	21.3%	43.5%	11.4%	96.1%	67.0%	95.4%	35.5%	49.6%	75.0%	0.3%	
Malawi 2004	95.1%	38.7%	54.9%	16.2%	29.8%	88.9%	6.6%	97.2%	93.5%	95.7%	41.6%	89.6%	97.1%	54.2%	
Nigeria 2004	88.1%	43.8%	3.8%	9.2%	19.1%	6.3%	4.2%	89.5%	32.5%	89.3%	25.9%	9.7%	35.1%	1.3%	
Ecuador 1995	72.9%	83.7%	38.9%	30.6%	39.0%	26.8%	11.1%	94.0%	69.4%	89.8%	54.9%	34.1%	85.6%	2.6%	
Ecuador 1998	68.4%	79.6%	34.8%	33.6%	37.6%	27.6%	11.3%	89.5%	69.5%	85.6%	55.8%	34.7%	85.0%	3.0%	
Guatemala 2000	84.7%	66.1%	42.7%	34.6%	37.5%	65.3%	3.7%	92.6%	85.7%	89.9%	58.0%	66.6%	95.2%	58.1%	
Nicaragua 2001	85.3%	74.3%	39.5%	35.4%	26.1%	38.7%	19.4%	95.1%	72.9%	91.8%	52.0%	42.8%	87.5%	2.4%	
Panama 1997	63.6%	95.0%	26.9%	43.8%	22.2%	68.5%	8.4%	97.2%	86.5%	96.6%	56.1%	71.0%	93.3%	48.9%	
Panama 2003	77.5%	64.6%	30.3%	42.0%	28.2%	64.4%	11.5%	86.6%	86.3%	82.3%	58.4%	67.3%	93.6%	15.1%	
Bangladesh 2000	61.2%	70.4%	35.4%	31.9%	25.7%	48.5%	55.0%	88.6%	90.5%	82.0%	53.1%	74.5%	97.4%	32.5%	
Indonesia 1993	56.8%	28.7%	19.8%	26.2%	30.4%	71.0%	11.1%	72.0%	85.4%	61.4%	49.9%	73.8%	89.2%	4.6%	
Indonesia 2000	53.7%	10.2%	19.3%	31.8%	32.7%	85.4%	14.1%	64.3%	92.5%	54.4%	54.9%	87.0%	93.8%	7.4%	
Nepal 1996	87.8%	79.2%	41.5%	21.2%	20.1%	26.5%	6.7%	97.1%	58.9%	92.7%	37.9%	31.1%	83.7%	3.4%	
Pakistan 1991	44.5%	76.2%	24.7%	46.5%	31.4%	31.2%	3.3%	83.1%	79.8%	78.8%	67.6%	33.0%	86.0%	7.8%	
Pakistan 2001	47.6%	64.3%	20.0%	48.5%	17.8%	31.4%	15.7%	74.5%	78.1%	69.7%	57.9%	41.2%	84.8%	14.5%	
Vietnam 1992	92.1%	92.0%	15.2%	21.9%	40.9%	35.5%	4.6%	97.0%	72.1%	96.1%	54.2%	38.1%	77.3%	20.4%	
Vietnam 1998	97.8%	90.6%	19.9%	31.7%	38.3%	36.3%	19.2%	99.0%	79.7%	98.5%	58.5%	48.2%	85.8%	19.6%	
Simple mean	74.4%	68.0%	23.7%	28.5%	26.5%	51.5%	12.8%	89.2%	78.6%	86.2%	47.7%	56.5%	85.4%	25.3%	
Minimum	0.0%	10.2%	3.7%	9.2%	2.4%	6.3%	3.3%	64.3%	32.5%	54.4%	22.2%	9.7%	35.1%	0.3%	
Maximum	97.8%	95.0%	54.9%	48.5%	45.0%	89.3%	55.0%	99.0%	94.3%	98.5%	67.6%	90.6%	97.4%	87.9%	

Table AII.2. Rural household share of income from different activities (using "Means of Shares")

Country and year	Income-generating activity												
	Group I							Group II			Group III		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(1) + (2) + (3)	(4) + (5) + (6) + (7)	(1) + (2)	(4) + (5)	(6) + (7)	(3) + (4) + (5) + (6) + (7)
	Agriculture- Crops	Agriculture - Livestock	Agricultural wage employment	Non-farm wage employment	Non-farm self- employment	Transfers	Other	Agricultural total	Non- Agricultural Total	On-Farm Total	Non-farm total	Transfers & Other	Off-farm Total
Albania 2002	15.8%	33.8%	2.2%	15.2%	5.0%	27.6%	0.4%	51.8%	48.2%	49.6%	20.2%	28.0%	50.4%
Albania 2005	17.7%	23.1%	2.7%	18.3%	7.3%	27.7%	3.1%	43.5%	56.5%	40.8%	25.6%	30.9%	59.2%
Bulgaria 1995	11.3%	32.6%	7.8%	11.6%	1.5%	33.6%	1.6%	51.8%	48.2%	43.9%	13.1%	35.2%	56.1%
Bulgaria 2001	4.2%	11.7%	9.6%	11.5%	1.3%	60.5%	1.3%	25.5%	74.5%	15.9%	12.8%	61.7%	84.1%
Ghana 1992	66.2%	2.5%	1.7%	7.8%	15.8%	5.6%	0.3%	70.4%	29.6%	68.7%	23.6%	6.0%	31.3%
Ghana 1998	55.0%	4.4%	1.4%	9.6%	20.5%	8.5%	0.5%	60.9%	39.1%	59.4%	30.1%	9.0%	40.6%
Madagascar 1993	57.3%	13.2%	6.5%	6.1%	8.5%	6.2%	2.2%	77.0%	23.0%	70.5%	14.6%	8.4%	29.5%
Malawi 2004	44.8%	2.6%	17.7%	9.3%	12.5%	12.7%	0.5%	65.1%	34.9%	47.4%	21.7%	13.2%	52.6%
Nigeria 2004	73.5%	4.3%	2.0%	7.1%	10.8%	1.7%	0.6%	79.8%	20.2%	77.8%	17.8%	2.4%	22.2%
Ecuador 1995	23.0%	15.2%	21.8%	16.3%	16.1%	5.9%	1.8%	59.9%	40.1%	38.2%	32.4%	7.7%	61.8%
Ecuador 1998	18.8%	17.0%	19.9%	19.0%	19.8%	4.4%	1.0%	55.7%	44.3%	35.8%	38.8%	5.5%	64.2%
Guatemala 2000	22.4%	4.1%	20.9%	22.6%	12.7%	16.8%	0.5%	47.4%	52.6%	26.5%	35.4%	17.3%	73.5%
Nicaragua 2001	16.2%	14.2%	23.0%	22.0%	12.9%	6.5%	5.1%	53.4%	46.6%	30.5%	35.0%	11.6%	69.5%
Panama 1997	21.2%	1.6%	14.5%	30.4%	18.5%	12.5%	1.3%	37.3%	62.7%	22.8%	48.9%	13.8%	77.2%
Panama 2003	20.0%	6.3%	16.4%	27.3%	13.6%	15.1%	1.3%	42.7%	57.3%	26.3%	40.9%	16.4%	73.7%
Bangladesh 2000	15.3%	2.2%	20.0%	19.7%	16.3%	13.2%	13.1%	37.6%	62.4%	17.6%	36.1%	26.3%	82.4%
Indonesia 1993	36.3%	7.4%	6.8%	10.1%	20.1%	15.8%	3.6%	50.4%	49.6%	43.6%	30.2%	19.4%	56.4%
Indonesia 2000	23.8%	2.1%	9.7%	20.3%	17.6%	22.9%	3.6%	35.5%	64.5%	25.8%	37.9%	26.5%	74.2%
Nepal 1996	14.3%	25.2%	24.2%	13.3%	10.6%	11.4%	1.0%	63.7%	36.3%	39.5%	23.9%	12.4%	60.5%
Pakistan 1991	29.3%	14.7%	5.7%	27.5%	19.4%	2.7%	0.7%	49.7%	50.3%	44.0%	46.9%	3.4%	56.0%
Pakistan 2001	22.5%	13.2%	8.3%	27.4%	10.3%	13.8%	4.4%	44.1%	55.9%	35.7%	37.7%	18.3%	64.3%
Vietnam 1992	46.7%	10.3%	5.3%	6.4%	24.0%	6.9%	0.4%	62.3%	37.7%	57.0%	30.4%	7.3%	43.0%
Vietnam 1998	34.9%	21.7%	5.9%	9.1%	21.1%	7.0%	0.3%	62.5%	37.5%	56.6%	30.2%	7.3%	43.4%
Simple mean	30.0%	12.3%	11.0%	16.0%	13.8%	14.7%	2.1%	53.4%	46.6%	42.3%	29.7%	16.9%	57.7%
Minimum	4.2%	1.6%	1.4%	6.1%	1.3%	1.7%	0.3%	25.5%	20.2%	15.9%	12.8%	2.4%	22.2%
Maximum	73.5%	33.8%	24.2%	30.4%	24.0%	60.5%	13.1%	79.8%	74.5%	77.8%	48.9%	61.7%	84.1%

Table AII.3. Rural household share of income from different activities (using "Shares of Means")

Country and year	Income-generating activity												
	Group I							Group II			Group III		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(1) + (2) + (3)	(4) + (5) + (6) + (7)	(1) + (2)	(4) + (5)	(6) + (7)	(3) + (4) + (5) + (6) + (7)
	Agriculture- Crops	Agriculture - Livestock	Agricultural wage employment	Non-farm wage employment	Non-farm self- employment	Transfers	Other	Agricultural total	Non- Agricultural Total	On-Farm Total	Non-farm total	Transfers & Other	Off-farm Total
Albania 2002	20.1%	28.1%	2.6%	18.6%	6.1%	23.8%	0.6%	50.9%	49.1%	48.3%	24.6%	24.4%	51.7%
Albania 2005	13.0%	15.9%	3.5%	24.7%	20.5%	19.2%	3.3%	32.3%	67.7%	28.9%	45.2%	22.5%	71.1%
Bulgaria 1995	9.7%	30.8%	10.7%	17.9%	5.1%	24.3%	1.5%	51.1%	48.9%	40.5%	23.0%	25.9%	59.5%
Bulgaria 2001	5.5%	12.1%	17.5%	19.4%	0.3%	44.2%	1.0%	35.1%	64.9%	17.6%	19.7%	45.2%	82.4%
Ghana 1992	72.4%	2.5%	1.9%	8.9%	11.6%	2.5%	0.2%	76.7%	23.3%	74.9%	20.5%	2.8%	25.1%
Ghana 1998	51.0%	3.9%	1.8%	15.4%	22.4%	5.1%	0.3%	56.7%	43.3%	54.9%	37.9%	5.4%	45.1%
Madagascar 1993	57.1%	14.6%	6.1%	4.6%	11.8%	3.8%	2.0%	77.8%	22.2%	71.7%	16.5%	5.8%	28.3%
Malawi 2004	65.5%	1.1%	7.9%	12.4%	9.5%	3.3%	0.3%	74.5%	25.5%	66.6%	21.9%	3.6%	33.4%
Nigeria 2004	52.7%	2.5%	13.4%	18.7%	11.6%	0.7%	0.4%	68.6%	31.4%	55.2%	30.3%	1.1%	44.8%
Ecuador 1995	15.9%	10.0%	21.5%	22.3%	23.5%	4.1%	2.8%	47.3%	52.7%	25.9%	45.8%	6.9%	74.1%
Ecuador 1998	16.9%	12.4%	18.3%	24.5%	24.0%	2.3%	1.3%	47.6%	52.1%	29.3%	48.5%	3.6%	70.4%
Guatemala 2000	21.8%	3.4%	21.8%	20.8%	13.7%	18.0%	0.5%	47.0%	53.0%	25.2%	34.5%	18.5%	74.8%
Nicaragua 2001	10.7%	10.8%	20.8%	31.2%	16.7%	5.0%	4.7%	42.3%	57.7%	21.6%	48.0%	9.7%	78.4%
Panama 1997	19.8%	6.7%	14.7%	29.9%	9.2%	18.2%	1.5%	41.2%	58.8%	26.5%	39.1%	19.7%	73.5%
Panama 2003	9.9%	3.2%	14.7%	44.4%	16.3%	10.3%	1.2%	27.8%	72.2%	13.1%	60.6%	11.6%	86.9%
Bangladesh 2000	13.1%	1.6%	13.0%	21.2%	22.2%	16.8%	12.1%	27.7%	72.3%	14.7%	43.5%	28.9%	85.3%
Indonesia 1993	27.3%	9.0%	2.7%	9.5%	33.0%	12.0%	6.5%	39.0%	61.0%	36.3%	42.5%	18.5%	63.7%
Indonesia 2000	15.4%	2.0%	9.3%	33.9%	23.1%	13.1%	3.1%	26.7%	73.3%	17.4%	57.0%	16.2%	82.6%
Nepal 1996	10.3%	24.4%	17.8%	19.1%	14.8%	12.4%	1.3%	52.5%	47.5%	34.7%	33.9%	13.7%	65.3%
Pakistan 1991	46.0%	14.6%	2.4%	17.9%	17.0%	1.5%	0.6%	63.0%	37.0%	60.6%	34.9%	2.1%	39.4%
Pakistan 2001	31.0%	11.6%	5.5%	23.9%	11.5%	10.7%	5.8%	48.1%	51.9%	42.6%	35.4%	16.5%	57.4%
Vietnam 1992	27.4%	11.5%	3.6%	5.4%	47.3%	4.3%	0.4%	42.5%	57.5%	39.0%	52.8%	4.7%	61.0%
Vietnam 1998	21.1%	14.3%	4.0%	7.9%	48.6%	3.9%	0.2%	39.4%	60.6%	35.4%	56.5%	4.1%	64.6%
Simple mean	27.5%	10.7%	10.2%	19.7%	18.3%	11.3%	2.3%	48.5%	51.5%	38.3%	37.9%	13.5%	61.7%
Minimum	5.5%	1.1%	1.8%	4.6%	0.3%	0.7%	0.2%	26.7%	22.2%	13.1%	16.5%	1.1%	25.1%
Maximum	72.4%	30.8%	21.8%	44.4%	48.6%	44.2%	12.1%	77.8%	73.3%	74.9%	60.6%	45.2%	86.9%

Table AII.4. Share of RNF wage employment income by activity

Country and year	RNF wage employment activity								
	Mining	Manufacturing	Utilities	Construction	Commerce	Transport	Finance	Services	Other
Albania 2002	2.7%	8.7%	7.4%	31.4%	7.4%	6.0%	0.0%	36.5%	0.0%
Albania 2005	2.3%	11.6%	3.6%	32.1%	13.6%	4.7%	0.1%	32.0%	0.0%
Bosnia 2001	5.3%	21.2%	3.6%	19.2%	13.1%	10.9%	1.4%	25.3%	0.0%
Bulgaria 1995	0.0%	11.5%	0.0%	0.0%	57.7%	0.0%	2.1%	28.8%	0.0%
Bulgaria 2001	0.0%	12.8%	0.0%	0.0%	53.9%	0.0%	1.1%	32.2%	0.0%
Ghana 1992	4.0%	7.3%	0.5%	9.0%	5.7%	7.8%	2.0%	63.4%	0.3%
Ghana 1998	14.0%	10.8%	1.2%	7.7%	4.8%	8.3%	6.3%	46.8%	0.1%
Madagascar 1993	3.4%	17.7%	0.4%	10.7%	9.8%	9.7%	1.8%	42.3%	4.2%
Malawi 2004	0.2%	20.4%	2.5%	6.0%	6.6%	2.9%	1.9%	57.4%	2.2%
Nigeria 2004	0.3%	4.4%	0.4%	2.6%	23.0%	5.1%	3.5%	55.4%	5.3%
Ecuador 1995	5.3%	18.2%	1.8%	22.6%	7.9%	8.5%	1.1%	30.8%	3.9%
Ecuador 1998	3.9%	17.7%	1.9%	15.1%	15.2%	7.4%	0.7%	29.6%	8.5%
Guatemala 2000	0.3%	16.7%	0.9%	23.3%	15.6%	7.6%	4.1%	31.1%	0.4%
Nicaragua 2001	4.2%	19.8%	2.4%	12.6%	8.9%	5.6%	1.0%	45.5%	0.0%
Panama 1997	1.0%	15.9%	1.5%	8.5%	20.3%	5.5%	0.7%	46.1%	0.5%
Panama 2003	0.1%	6.7%	3.4%	9.3%	22.2%	5.8%	0.8%	51.4%	0.3%
Bangladesh 2000	0.1%	31.4%	1.1%	8.7%	2.3%	19.3%	8.1%	27.5%	1.6%
Indonesia 1993	2.3%	29.1%	2.2%	14.5%	13.2%	10.9%	6.9%	13.1%	7.8%
Indonesia 2000	2.2%	26.0%	0.6%	10.8%	8.2%	7.5%	1.2%	43.3%	0.2%
Nepal 1996	0.6%	16.9%	1.4%	16.5%	9.8%	6.9%	1.9%	34.0%	12.0%
Pakistan 1991	1.7%	18.7%	2.6%	20.7%	4.6%	12.1%	1.8%	35.2%	2.4%
Pakistan 2001	0.4%	14.4%	2.4%	20.3%	7.6%	10.6%	1.0%	35.3%	8.1%
Vietnam 1992	1.8%	36.9%	1.3%	19.3%	5.2%	7.4%	1.0%	25.8%	1.4%
Vietnam 1998	3.4%	30.5%	1.1%	23.0%	4.9%	5.6%	0.7%	30.8%	0.0%
Simple mean	2.5%	17.7%	1.8%	14.3%	14.2%	7.3%	2.1%	37.5%	2.5%
Minimum	0.0%	4.4%	0.0%	0.0%	2.3%	0.0%	0.0%	13.1%	0.0%
Maximum	14.0%	36.9%	7.4%	32.1%	57.7%	19.3%	8.1%	63.4%	12.0%

Table AII.5. Participation in RNF wage employment income by activity

Country and year	RNF wage employment activity								
	Mining	Manufacturing	Utilities	Construction	Commerce	Transport	Finance	Services	Other
Albania 2002	1.5%	1.8%	2.4%	8.6%	2.4%	2.0%	0.0%	10.0%	0.0%
Albania 2005	0.8%	2.7%	1.1%	10.4%	2.9%	1.5%	0.1%	10.3%	0.0%
Bosnia 2001	2.5%	12.0%	1.8%	8.1%	7.0%	4.1%	0.9%	13.0%	0.0%
Bulgaria 1995	0.0%	3.4%	0.0%	0.0%	13.6%	0.0%	0.5%	9.1%	0.0%
Bulgaria 2001	0.0%	2.7%	0.0%	0.0%	11.9%	0.0%	0.3%	7.5%	0.1%
Ghana 1992	0.4%	1.7%	0.1%	1.4%	1.1%	1.2%	0.2%	8.0%	0.0%
Ghana 1998	1.1%	3.7%	0.2%	1.5%	2.8%	1.4%	0.6%	7.5%	0.1%
Madagascar 1993	0.5%	4.0%	0.1%	2.2%	2.4%	1.6%	0.2%	8.9%	0.8%
Malawi 2004	0.0%	3.7%	0.3%	3.4%	1.4%	0.5%	0.2%	6.9%	0.3%
Nigeria 2004	0.0%	0.4%	0.1%	0.4%	2.7%	0.8%	0.3%	4.5%	0.4%
Ecuador 1995	1.4%	9.1%	0.7%	9.3%	4.6%	2.4%	0.3%	9.5%	3.3%
Ecuador 1998	1.4%	7.9%	1.1%	8.6%	6.5%	2.7%	0.2%	10.3%	5.3%
Guatemala 2000	0.2%	9.5%	0.3%	8.2%	8.3%	3.0%	1.3%	13.5%	0.2%
Nicaragua 2001	1.7%	7.4%	0.7%	6.8%	4.9%	2.0%	0.3%	20.4%	0.1%
Panama 1997	0.5%	8.2%	0.7%	6.5%	12.6%	3.6%	0.5%	22.9%	0.5%
Panama 2003	0.1%	4.7%	1.2%	6.2%	12.7%	3.3%	0.3%	23.2%	0.1%
Bangladesh 2000	0.0%	10.7%	0.3%	4.1%	1.1%	7.1%	3.0%	8.1%	0.7%
Indonesia 1993	0.5%	6.4%	0.4%	5.1%	3.4%	2.8%	0.6%	9.3%	1.5%
Indonesia 2000	0.7%	9.5%	0.2%	6.4%	4.2%	2.7%	0.3%	12.0%	0.1%
Nepal 1996	0.2%	3.7%	0.3%	6.4%	2.2%	1.0%	0.2%	6.6%	3.4%
Pakistan 1991	0.9%	10.4%	1.1%	14.9%	3.1%	6.6%	0.7%	16.4%	1.9%
Pakistan 2001	0.2%	9.2%	0.8%	12.2%	4.6%	4.6%	0.3%	15.5%	13.3%
Vietnam 1992	0.5%	8.0%	0.4%	4.8%	1.0%	1.5%	0.2%	7.9%	0.1%
Vietnam 1998	1.2%	9.0%	0.5%	8.8%	1.8%	1.8%	0.2%	11.9%	0.0%
Simple mean	0.7%	6.2%	0.6%	6.0%	5.0%	2.4%	0.5%	11.4%	1.3%
Minimum	0.0%	0.4%	0.0%	0.0%	1.0%	0.0%	0.0%	4.5%	0.0%
Maximum	2.5%	12.0%	2.4%	14.9%	13.6%	7.1%	3.0%	23.2%	13.3%

Table AII.6. Share of RNF self employment income by activity

Country and year	RNF self employment activity									
	Agric & Fish (Processing)	Mining	Manufacturing	Utilities	Construction	Commerce	Transport	Finance	Services	Other
Albania 2002	-3.3%	0.0%	10.1%	0.0%	4.5%	84.6%	0.0%	-0.5%	2.5%	2.2%
Albania 2005	1.2%	0.0%	10.5%	0.0%	5.0%	71.7%	9.1%	1.2%	1.2%	0.0%
Bosnia 2001	0.0%	0.0%	4.1%	0.0%	0.0%	20.5%	0.0%	0.0%	43.3%	32.1%
Bulgaria 1995	--	--	--	--	--	--	--	--	--	--
Bulgaria 2001	--	--	--	--	--	--	--	--	--	--
Ghana 1992	6.8%	1.6%	37.1%	0.0%	4.1%	47.0%	-1.9%	0.0%	5.0%	0.2%
Ghana 1998	3.6%	0.8%	31.9%	0.1%	3.5%	58.1%	1.5%	-0.4%	-2.7%	3.7%
Madagascar 1993	12.6%	1.0%	20.7%	0.0%	0.5%	52.8%	4.9%	0.0%	2.5%	4.9%
Malawi 2004	12.0%	0.2%	26.7%	0.1%	0.6%	42.9%	1.5%	0.2%	5.3%	10.7%
Nigeria 2004	2.3%	6.0%	21.7%	0.7%	3.1%	33.6%	7.9%	3.2%	4.5%	16.9%
Ecuador 1995	--	--	--	--	--	--	--	--	--	--
Ecuador 1998	10.6%	0.7%	15.6%	0.0%	4.0%	49.8%	4.3%	0.0%	14.5%	0.6%
Guatemala 2000	20.0%	0.5%	13.8%	0.0%	4.8%	46.8%	5.1%	1.9%	7.1%	0.0%
Nicaragua 2001	2.1%	4.2%	20.6%	0.0%	4.4%	55.0%	7.1%	0.0%	6.6%	0.0%
Panama 1997	23.4%	0.4%	15.4%	0.2%	7.5%	29.8%	17.2%	0.3%	5.4%	0.4%
Panama 2003	24.5%	0.2%	9.6%	0.0%	5.9%	36.6%	12.9%	0.6%	9.6%	0.0%
Bangladesh 2000	20.9%	1.8%	16.6%	1.0%	2.1%	22.2%	11.4%	18.9%	4.4%	0.8%
Indonesia 1993	28.3%	1.0%	8.6%	0.2%	1.6%	39.4%	6.9%	0.5%	8.6%	5.0%
Indonesia 2000	2.9%	0.3%	0.0%	0.3%	3.1%	65.4%	5.8%	0.5%	21.5%	0.2%
Nepal 1996	2.5%	0.1%	22.7%	0.3%	2.3%	50.3%	6.3%	1.1%	13.5%	0.9%
Pakistan 1991	0.4%	0.1%	22.5%	1.4%	1.9%	45.7%	15.9%	0.6%	10.3%	1.3%
Pakistan 2001	1.3%	0.1%	10.1%	0.0%	1.4%	51.7%	18.3%	0.9%	16.1%	0.1%
Vietnam 1992	8.9%	0.4%	19.5%	0.0%	0.3%	64.1%	3.3%	0.0%	3.4%	0.0%
Vietnam 1998	4.1%	0.5%	18.9%	0.0%	1.2%	69.0%	2.0%	0.1%	4.1%	0.0%
Simple mean	8.6%	1.2%	18.3%	0.1%	3.5%	49.9%	5.1%	0.5%	7.8%	5.1%
Minimum	-3.3%	0.0%	4.1%	0.0%	0.0%	20.5%	-1.9%	-0.5%	-2.7%	0.0%
Maximum	24.5%	6.0%	37.1%	0.7%	7.5%	84.6%	17.2%	3.2%	43.3%	32.1%

Table AII.7. Participation in RNF self employment income by activity

Country and year	RNF self employment activity									
	Agric & Fish (Processing)	Mining	Manufacturing	Utilities	Construction	Commerce	Transport	Finance	Services	Other
Albania 2002	0.3%	0.0%	1.4%	0.0%	0.4%	5.3%	0.0%	0.1%	0.3%	0.1%
Albania 2005	0.8%	0.1%	1.2%	--	0.9%	5.2%	2.1%	0.1%	0.3%	--
Bosnia 2001	--	--	0.6%	--	--	2.1%	--	--	4.1%	0.6%
Bulgaria 1995	.	.	0.2%	.	0.1%	1.3%	0.0%	.	0.5%	0.6%
Bulgaria 2001	0.1%	--	0.1%	--	0.1%	1.1%	0.0%	--	0.8%	0.2%
Ghana 1992	1.3%	0.2%	17.5%	0.0%	0.6%	26.8%	0.3%	0.0%	2.5%	0.2%
Ghana 1998	0.3%	0.2%	11.9%	0.1%	1.4%	24.7%	0.4%	0.0%	4.2%	2.0%
Madagascar 1993	2.1%	1.3%	10.2%	--	0.2%	9.1%	0.2%	0.0%	1.2%	0.7%
Malawi 2004	2.5%	0.1%	9.3%	0.0%	0.1%	14.9%	0.3%	0.1%	1.5%	2.5%
Nigeria 2004	0.5%	1.3%	4.9%	0.1%	0.6%	7.0%	2.0%	0.7%	1.0%	4.1%
Ecuador 1995	--	--	--	--	--	--	--	--	--	--
Ecuador 1998	4.9%	0.2%	9.8%	0.1%	1.8%	15.8%	2.7%	0.0%	7.9%	0.7%
Guatemala 2000	18.5%	0.2%	9.5%	0.0%	1.2%	15.8%	1.1%	0.3%	2.6%	0.0%
Nicaragua 2001	1.0%	0.5%	6.2%	.	1.5%	15.3%	1.2%	0.0%	3.4%	0.0%
Panama 1997	9.3%	0.0%	5.3%	0.2%	1.7%	9.6%	2.8%	0.1%	2.2%	0.2%
Panama 2003	12.3%	0.2%	6.4%	0.0%	2.3%	12.0%	2.6%	0.1%	4.0%	0.0%
Bangladesh 2000	6.0%	0.4%	5.3%	0.2%	0.3%	5.7%	2.9%	5.2%	1.0%	0.2%
Indonesia 1993	9.7%	0.2%	3.4%	0.2%	0.5%	11.1%	1.4%	0.1%	2.3%	1.9%
Indonesia 2000	1.5%	0.3%	.	0.1%	0.8%	24.8%	1.4%	0.3%	6.6%	0.1%
Nepal 1996	0.8%	0.0%	6.7%	0.1%	0.1%	10.7%	0.5%	0.1%	2.2%	0.2%
Pakistan 1991	0.7%	0.0%	6.5%	1.5%	0.9%	12.2%	4.2%	0.1%	3.7%	3.6%
Pakistan 2001	0.2%	0.0%	2.0%	0.0%	0.4%	9.3%	2.5%	0.1%	4.1%	0.0%
Vietnam 1992	10.6%	1.0%	14.1%	0.0%	0.4%	17.8%	2.2%	0.0%	2.6%	0.1%
Vietnam 1998	7.2%	0.8%	13.5%	0.0%	1.2%	17.7%	2.1%	0.0%	3.1%	.
Simple mean	4.3%	0.4%	6.6%	0.2%	0.8%	12.0%	1.5%	0.4%	2.7%	0.8%
Minimum	0.1%	0.0%	0.1%	0.0%	0.1%	1.1%	0.0%	0.0%	0.3%	0.0%
Maximum	18.5%	1.3%	17.5%	1.5%	2.3%	26.8%	4.2%	5.2%	7.9%	4.1%

Table AII.8. Share of RNF wage and self employment income by activity

Country and year	RNF activity									
	Agric & Fish (Processing)	Mining	Manufacturing	Utilities	Construction	Commerce	Transport	Finance	Services	Other
Albania 2002	-0.8%	2.0%	9.0%	5.6%	24.7%	26.5%	4.5%	-0.1%	28.1%	0.6%
Albania 2005	0.6%	1.2%	11.1%	2.0%	19.8%	39.9%	6.7%	0.6%	18.0%	0.0%
Bosnia 2001	0.0%	4.6%	18.7%	3.1%	16.4%	14.1%	9.3%	1.2%	27.9%	4.6%
Bulgaria 1995	0.0%	0.0%	9.2%	0.0%	1.3%	66.2%	0.0%	1.6%	22.8%	-1.1%
Bulgaria 2001	-0.3%	-0.8%	13.0%	5.2%	0.0%	51.9%	-1.8%	1.1%	31.7%	0.0%
Ghana 1992	3.9%	2.7%	24.2%	0.2%	6.3%	29.1%	2.3%	0.9%	30.3%	0.2%
Ghana 1998	2.1%	6.2%	23.3%	0.6%	5.2%	36.4%	4.3%	2.3%	17.5%	2.2%
Madagascar 1993	9.1%	1.6%	19.9%	0.1%	3.4%	40.7%	6.3%	0.5%	13.7%	4.7%
Malawi 2004	5.2%	0.2%	23.1%	1.4%	3.7%	22.4%	2.3%	1.1%	34.7%	5.9%
Nigeria 2004	0.9%	2.5%	11.1%	0.5%	2.8%	27.1%	6.2%	3.4%	35.9%	9.7%
Ecuador 1995	-	5.3%	18.2%	1.8%	22.6%	7.9%	8.5%	1.1%	30.8%	3.9%
Ecuador 1998	5.2%	2.3%	16.6%	1.0%	9.6%	32.3%	5.9%	0.4%	22.1%	4.6%
Guatemala 2000	7.6%	0.4%	15.6%	0.6%	16.2%	27.5%	6.7%	3.3%	22.0%	0.3%
Nicaragua 2001	0.7%	4.2%	20.1%	1.5%	9.7%	25.0%	6.1%	0.7%	31.9%	0.0%
Panama 1997	4.5%	0.9%	15.8%	1.3%	8.3%	22.1%	7.7%	0.7%	38.3%	0.5%
Panama 2003	6.6%	0.2%	7.5%	2.5%	8.4%	26.1%	7.7%	0.8%	40.2%	0.2%
Bangladesh 2000	10.7%	0.9%	23.8%	1.0%	5.3%	12.5%	15.2%	13.6%	15.7%	1.2%
Indonesia 1993	21.9%	1.3%	13.2%	0.6%	4.5%	33.6%	7.8%	1.9%	9.6%	5.6%
Indonesia 2000	1.2%	1.4%	15.4%	0.5%	7.7%	31.4%	6.8%	0.9%	34.5%	0.2%
Nepal 1996	1.1%	0.4%	19.4%	0.9%	10.3%	27.5%	6.6%	1.5%	25.1%	7.2%
Pakistan 1991	0.2%	0.9%	20.6%	2.0%	11.5%	24.6%	14.0%	1.2%	23.1%	1.9%
Pakistan 2001	0.4%	0.3%	13.0%	1.6%	14.1%	21.9%	13.1%	1.0%	29.0%	5.5%
Vietnam 1992	8.0%	0.5%	21.3%	0.1%	2.3%	58.1%	3.8%	0.1%	5.7%	0.2%
Vietnam 1998	3.5%	0.9%	20.5%	0.1%	4.3%	60.1%	2.5%	0.2%	7.8%	0.0%
Simple mean	4.0%	1.7%	16.8%	1.4%	9.1%	31.9%	6.3%	1.7%	24.9%	2.4%
Minimum	-0.8%	-0.8%	7.5%	0.0%	0.0%	7.9%	-1.8%	-0.1%	5.7%	-1.1%
Maximum	21.9%	6.2%	24.2%	5.6%	24.7%	66.2%	15.2%	13.6%	40.2%	9.7%

Table AII.9. Participation in RNF wage and self employment income by activity

Country and year	RNF activity									
	Agric & Fish (Processing)	Mining	Manufacturing	Utilities	Construction	Commerce	Transport	Finance	Services	Other
Albania 2002	0.3%	1.5%	3.2%	2.4%	9.0%	7.5%	2.0%	0.1%	10.2%	0.1%
Albania 2005	0.8%	0.9%	4.0%	1.1%	11.3%	7.9%	3.6%	0.1%	10.6%	0.0%
Bosnia 2001	0.0%	2.5%	12.5%	1.8%	8.1%	8.7%	4.1%	0.9%	16.8%	0.6%
Bulgaria 1995	0.0%	0.0%	3.7%	0.0%	0.1%	14.8%	0.0%	0.5%	9.5%	0.6%
Bulgaria 2001	0.1%	0.0%	2.9%	0.0%	0.1%	13.0%	0.0%	0.3%	8.2%	0.3%
Ghana 1992	1.3%	0.6%	19.0%	0.1%	2.0%	27.6%	1.4%	0.2%	10.4%	0.2%
Ghana 1998	0.3%	1.3%	14.6%	0.2%	2.8%	26.0%	1.9%	0.6%	11.4%	2.0%
Madagascar 1993	2.1%	1.8%	13.7%	0.1%	2.3%	11.1%	1.8%	0.2%	9.9%	1.4%
Malawi 2004	2.5%	0.1%	12.8%	0.3%	3.4%	16.0%	0.7%	0.3%	8.3%	2.7%
Nigeria 2004	0.5%	1.4%	5.2%	0.2%	1.0%	9.4%	2.6%	1.0%	5.5%	4.5%
Ecuador 1995	--	1.4%	9.1%	0.7%	9.3%	4.6%	2.4%	0.3%	9.5%	3.3%
Ecuador 1998	4.9%	1.6%	16.9%	1.2%	10.0%	21.1%	5.1%	0.2%	16.7%	5.9%
Guatemala 2000	18.5%	0.3%	17.8%	0.4%	9.3%	22.1%	4.0%	1.5%	15.4%	0.2%
Nicaragua 2001	1.0%	2.2%	13.1%	0.7%	8.4%	19.0%	3.3%	0.3%	23.0%	0.1%
Panama 1997	9.3%	0.5%	12.9%	0.9%	8.0%	20.8%	6.2%	0.5%	24.0%	0.8%
Panama 2003	12.3%	0.3%	10.8%	1.2%	8.3%	22.8%	5.8%	0.4%	26.0%	0.1%
Bangladesh 2000	6.0%	0.5%	15.7%	0.5%	4.4%	6.8%	9.9%	8.0%	8.8%	0.9%
Indonesia 1993	9.7%	0.7%	9.5%	0.5%	5.6%	14.2%	4.1%	0.8%	11.2%	3.4%
Indonesia 2000	1.5%	1.0%	9.5%	0.4%	7.1%	27.7%	4.0%	0.6%	17.8%	0.2%
Nepal 1996	0.8%	0.2%	10.1%	0.3%	6.5%	12.7%	1.6%	0.4%	8.6%	3.5%
Pakistan 1991	0.7%	0.9%	16.2%	2.6%	15.8%	14.8%	10.5%	0.8%	19.7%	5.2%
Pakistan 2001	0.2%	0.2%	10.6%	0.8%	12.5%	12.7%	6.7%	0.4%	18.4%	13.3%
Vietnam 1992	10.6%	1.5%	20.7%	0.4%	5.2%	18.6%	3.6%	0.2%	10.2%	0.2%
Vietnam 1998	7.2%	1.8%	20.9%	0.5%	9.9%	18.9%	3.8%	0.3%	14.6%	0.0%
Simple mean	3.9%	1.0%	11.9%	0.7%	6.7%	15.8%	3.7%	0.8%	13.5%	2.1%
Minimum	0.0%	0.0%	2.9%	0.0%	0.1%	4.6%	0.0%	0.1%	5.5%	0.0%
Maximum	18.5%	2.5%	20.9%	2.6%	15.8%	27.7%	10.5%	8.0%	26.0%	13.3%

Appendix III

Table AIII.1. Sources of income by expenditure quintile (Means of Shares)

		Group I							Group II		Group III				Group IV	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(1) + (2) + (3)	(4) + (5) + (6) + (7)	(1) + (2)	(4) + (5)	(6) + (7)	3) + (4) + (5) + (6) + (7)	Transfers- Public	Transfers- Private
Quintile		Crop	Livestock	Ag Wage Labor	Non-Ag Wage Labor	Nonfarm Enterprise	Transfers	Other	Agricultural total	Non-Ag Total	On-farm Total	Non-farm Total	Transfers & Other	Off-farm Total		
Albania 2002	Poorest quintile	16.15%	39.02%	3.29%	12.93%	3.70%	24.63%	0.29%	58.5%	41.5%	55.17%	16.62%	24.91%	44.83%	18.45%	6.17%
	2nd	16.54%	39.71%	2.37%	17.00%	0.92%	23.42%	0.04%	58.6%	41.4%	56.25%	17.92%	23.46%	43.75%	15.38%	8.04%
	3rd	15.07%	36.21%	2.89%	18.15%	5.46%	21.44%	0.79%	54.2%	45.8%	51.28%	23.61%	22.23%	48.72%	12.54%	8.90%
	4th	16.53%	28.77%	1.77%	16.55%	8.24%	27.81%	0.28%	47.1%	52.9%	45.36%	24.78%	28.09%	54.64%	14.74%	13.07%
	5th	14.42%	25.45%	0.81%	11.29%	6.62%	40.91%	0.49%	40.7%	59.3%	39.87%	17.92%	41.40%	60.13%	23.01%	17.90%
	Total	15.76%	33.84%	2.23%	15.19%	4.98%	27.63%	0.38%	51.8%	48.2%	49.60%	20.77%	28.00%	50.40%	16.82%	10.81%
Albania 2005	Poorest quintile	20.16%	28.98%	3.28%	11.49%	3.19%	29.37%	3.53%	52.4%	47.6%	49.13%	14.68%	32.90%	50.87%	21.33%	8.04%
	2nd	18.68%	25.99%	4.27%	18.12%	6.06%	24.79%	2.10%	48.9%	51.1%	44.67%	24.17%	26.89%	55.33%	16.60%	8.19%
	3rd	17.64%	23.89%	2.74%	20.65%	5.92%	25.93%	3.23%	44.3%	55.7%	41.53%	26.57%	29.15%	58.47%	15.26%	10.67%
	4th	15.95%	19.68%	1.60%	20.64%	10.91%	27.48%	3.75%	37.2%	62.8%	35.63%	31.55%	31.22%	64.37%	13.80%	13.68%
	5th	16.06%	17.02%	1.75%	20.68%	10.20%	31.18%	3.11%	34.8%	65.2%	33.08%	30.89%	34.29%	66.92%	14.77%	16.41%
	Total	17.70%	23.12%	2.73%	18.31%	7.25%	27.75%	3.14%	43.5%	56.5%	40.81%	25.57%	30.89%	59.19%	16.35%	11.39%
Bulgaria 1995	Poorest quintile	19.79%	16.57%	10.51%	9.89%	1.43%	41.29%	0.52%	46.9%	53.1%	36.36%	11.32%	41.81%	63.64%	39.67%	1.62%
	2nd	14.34%	23.87%	6.47%	10.18%	0.85%	42.30%	2.00%	44.7%	55.3%	38.21%	11.02%	44.30%	61.79%	40.67%	1.63%
	3rd	17.26%	23.17%	7.82%	10.64%	0.06%	37.92%	2.13%	48.3%	51.7%	40.43%	40.05%	59.57%	35.18%	2.75%	
	4th	18.72%	25.90%	6.85%	11.39%	0.54%	34.00%	2.59%	51.5%	48.5%	44.62%	11.94%	36.59%	55.38%	31.88%	2.12%
	5th	18.41%	23.23%	7.91%	14.71%	3.77%	29.28%	2.69%	49.5%	50.8%	41.64%	18.47%	31.98%	58.36%	25.99%	3.29%
	Total	17.71%	22.60%	7.90%	11.58%	1.33%	36.89%	2.00%	48.2%	51.8%	40.30%	12.91%	38.89%	59.70%	34.60%	2.29%
Bulgaria 2001	Poorest quintile	3.44%	6.56%	7.87%	5.20%	0.11%	76.38%	0.44%	17.9%	82.1%	10.00%	5.31%	76.82%	90.00%	72.25%	4.13%
	2nd	5.86%	12.33%	11.04%	12.87%	0.81%	55.67%	1.41%	29.2%	70.8%	18.20%	13.68%	57.09%	81.80%	52.75%	2.93%
	3rd	4.73%	14.30%	7.36%	10.59%	2.18%	60.05%	0.77%	26.4%	73.6%	19.04%	12.78%	60.82%	80.96%	55.31%	4.74%
	4th	2.66%	13.33%	11.57%	12.02%	2.45%	55.71%	2.26%	27.6%	72.4%	15.99%	14.47%	57.97%	84.01%	52.81%	2.90%
	5th	4.21%	11.53%	10.26%	16.50%	0.79%	55.35%	1.37%	26.0%	74.0%	15.74%	17.28%	56.72%	84.26%	50.15%	5.20%
	Total	4.19%	11.66%	9.63%	11.49%	1.28%	60.49%	1.26%	25.5%	74.5%	15.85%	12.77%	61.74%	84.15%	56.51%	3.98%
Ghana 1992	Poorest quintile	81.88%	3.15%	1.24%	2.74%	7.85%	3.02%	3.12%	86.3%	13.7%	85.03%	10.59%	3.15%	14.97%	0.14%	2.89%
	2nd	69.68%	3.12%	1.00%	6.03%	14.33%	5.77%	0.05%	73.8%	26.2%	72.81%	20.37%	5.83%	27.19%	0.52%	5.25%
	3rd	68.39%	2.31%	1.40%	7.03%	14.57%	5.91%	0.39%	72.1%	27.9%	70.70%	21.60%	6.30%	29.30%	0.34%	5.58%
	4th	60.45%	2.14%	2.30%	9.12%	19.49%	5.98%	0.52%	64.9%	35.1%	62.58%	28.61%	6.51%	37.42%	0.20%	5.79%
	5th	50.13%	1.91%	2.64%	14.23%	23.02%	7.56%	0.52%	54.7%	45.3%	52.04%	37.24%	8.08%	47.96%	0.82%	6.74%
	Total	66.15%	2.53%	1.71%	7.81%	15.83%	5.64%	0.32%	70.4%	29.6%	68.68%	23.64%	5.97%	31.32%	0.40%	5.24%
Ghana 1998	Poorest quintile	72.11%	5.21%	0.95%	1.98%	12.06%	7.15%	0.54%	78.3%	21.7%	77.32%	14.04%	7.69%	22.68%	0.22%	6.93%
	2nd	58.53%	4.37%	0.54%	8.67%	20.26%	6.97%	0.65%	63.4%	36.6%	62.91%	28.93%	7.62%	37.09%	0.36%	6.61%
	3rd	59.37%	4.45%	1.31%	8.12%	18.02%	8.39%	0.33%	65.1%	34.9%	63.82%	26.14%	8.72%	36.18%	0.34%	8.05%
	4th	45.56%	4.14%	2.10%	13.39%	25.36%	9.50%	-0.05%	51.8%	48.2%	49.70%	38.75%	9.45%	50.30%	1.06%	8.44%
	5th	38.95%	4.06%	2.26%	16.03%	27.01%	10.58%	1.10%	45.3%	54.7%	43.01%	43.04%	11.69%	56.99%	1.13%	9.45%
	Total	54.98%	4.45%	1.43%	9.60%	20.51%	8.51%	0.51%	60.9%	39.1%	59.43%	30.12%	9.02%	40.57%	0.62%	7.69%
Madagascar 1993	Poorest quintile	49.62%	14.91%	10.35%	2.88%	9.94%	9.28%	3.04%	74.9%	25.1%	64.53%	12.81%	12.31%	35.47%	0.00%	9.28%
	2nd	60.48%	15.09%	7.61%	3.08%	7.23%	4.90%	1.60%	83.2%	16.8%	75.58%	10.31%	6.50%	24.42%	0.05%	4.88%
	3rd	58.91%	12.11%	6.53%	7.21%	7.46%	5.85%	1.93%	77.5%	22.5%	71.02%	14.67%	7.78%	28.98%	0.10%	5.76%
	4th	61.78%	10.19%	5.07%	7.31%	7.08%	5.69%	2.88%	77.0%	23.0%	71.97%	14.39%	8.57%	28.03%	0.06%	5.63%
	5th	55.79%	13.87%	2.87%	10.00%	10.77%	5.12%	1.60%	72.0%	27.5%	69.65%	20.77%	6.71%	30.35%	0.33%	4.79%
	Total	57.31%	13.23%	6.49%	6.10%	8.50%	6.17%	2.21%	77.0%	23.0%	70.55%	14.59%	8.38%	29.45%	0.11%	6.06%
Malawi 2004	Poorest quintile	40.75%	2.53%	26.17%	6.47%	10.40%	13.44%	0.24%	69.4%	30.6%	43.28%	16.87%	13.68%	56.72%	5.46%	7.98%
	2nd	45.11%	3.11%	20.99%	7.39%	9.86%	13.32%	0.22%	69.2%	30.8%	48.22%	17.25%	13.54%	51.78%	5.55%	7.77%
	3rd	47.65%	3.06%	15.38%	7.92%	12.99%	12.63%	0.38%	66.1%	33.9%	50.71%	20.91%	13.00%	49.29%	4.40%	8.23%
	4th	47.27%	2.69%	13.78%	9.92%	13.87%	11.95%	0.52%	63.7%	36.3%	49.96%	23.79%	12.47%	50.04%	3.95%	8.00%
	5th	43.00%	1.61%	12.33%	14.56%	15.21%	12.25%	1.04%	56.9%	43.1%	44.60%	29.78%	13.29%	55.40%	3.48%	8.79%
	Total	44.75%	2.60%	17.73%	9.25%	12.47%	12.72%	0.48%	65.1%	34.9%	47.35%	21.72%	13.20%	52.65%	4.56%	8.15%
Nigeria 2004	Poorest quintile	85.10%	3.73%	2.73%	2.82%	4.83%	0.42%	0.36%	91.6%	8.4%	88.82%	7.66%	0.78%	11.18%	0.09%	0.33%
	2nd	81.39%	3.31%	1.52%	4.55%	8.12%	0.74%	0.39%	86.2%	13.8%	84.70%	12.66%	1.12%	15.30%	0.22%	0.52%
	3rd	74.79%	3.62%	1.88%	7.04%	10.65%	1.45%	0.57%	80.3%	19.7%	78.41%	17.70%	2.01%	21.59%	0.25%	1.19%
	4th	68.54%	4.97%	2.15%	9.04%	12.37%	2.21%	0.74%	75.7%	24.3%	73.50%	21.40%	2.94%	26.50%	0.35%	1.86%
	5th	57.23%	5.87%	1.53%	12.23%	18.12%	3.99%	1.03%	64.6%	35.4%	63.10%	30.35%	5.02%	36.90%	0.50%	3.49%
	Total	73.55%	4.29%	1.97%	7.09%	10.76%	1.74%	0.61%	79.8%	20.2%	77.83%	17.85%	2.35%	22.17%	0.28%	1.46%

		Group I							Group II		Group III				Group IV	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(1) + (2) + (3)	(4) + (5) + (6) + (7)	(1) + (2)	(3) + (4)	(5) + (6)	3) + (4) + (5) + (6) + (7)	Transfers- Public	Transfers- Private
Quintile		Crop	Livestock	Ag Wage Labor	Non-Ag Wage Labor	Nonfarm Enterprise	Transfers	Other	Agricultural total	Non-Ag Total	On-farm Total	Non-farm Total	Transfers & Other	Off-farm Total		
Ecuador 1995	Poorest quintile	22.94%	15.97%	30.31%	15.18%	9.69%	5.46%	0.45%	69.2%	30.8%	38.91%	24.86%	5.91%	61.09%	0.82%	4.64%
	2nd	24.00%	15.83%	26.80%	15.72%	11.28%	5.39%	0.99%	66.6%	33.4%	39.83%	27.00%	6.38%	60.17%	0.40%	4.99%
	3rd	24.01%	15.44%	23.24%	16.43%	13.76%	5.45%	1.66%	62.7%	37.3%	39.45%	30.19%	7.11%	60.55%	0.17%	5.28%
	4th	23.60%	17.42%	15.89%	17.29%	17.29%	5.94%	2.57%	56.9%	43.1%	41.02%	34.58%	8.51%	58.98%	0.62%	5.32%
	5th	20.39%	11.10%	12.46%	16.68%	28.59%	7.47%	3.32%	44.0%	56.0%	31.49%	45.26%	10.79%	68.51%	1.28%	6.19%
	Total	23.00%	16.16%	21.76%	16.26%	16.10%	5.94%	1.79%	59.9%	40.1%	38.16%	32.35%	7.73%	61.84%	0.66%	5.28%
Ecuador 1998	Poorest quintile	21.83%	23.67%	28.89%	12.61%	9.61%	3.24%	0.15%	74.4%	25.6%	45.50%	22.22%	3.39%	54.50%	0.27%	2.97%
	2nd	18.54%	19.25%	27.43%	16.27%	12.63%	5.26%	0.62%	65.2%	34.8%	37.79%	28.90%	5.88%	62.21%	0.79%	4.46%
	3rd	22.43%	17.51%	18.27%	18.85%	18.96%	2.94%	1.03%	58.2%	41.8%	39.94%	37.81%	3.97%	60.06%	0.62%	2.32%
	4th	18.67%	13.65%	16.04%	21.59%	22.86%	6.15%	1.05%	48.4%	51.6%	32.32%	44.44%	7.20%	67.68%	0.94%	5.21%
	5th	13.48%	10.68%	9.52%	25.86%	33.38%	4.74%	2.34%	33.7%	66.3%	24.16%	59.24%	7.08%	75.84%	1.62%	3.12%
	Total	19.01%	16.97%	20.06%	19.02%	19.45%	4.47%	1.03%	56.0%	44.0%	35.97%	38.46%	5.50%	64.03%	0.85%	3.62%
Guatemala 2000	Poorest quintile	29.78%	2.92%	33.16%	9.76%	8.08%	16.20%	0.09%	65.9%	34.1%	32.70%	17.84%	16.29%	67.30%	13.31%	2.88%
	2nd	26.54%	3.53%	25.73%	14.45%	12.34%	17.31%	0.10%	55.8%	44.2%	30.07%	26.79%	17.41%	69.93%	13.72%	3.59%
	3rd	21.28%	4.42%	22.34%	22.07%	10.76%	18.73%	0.40%	48.0%	52.0%	25.70%	32.83%	19.13%	74.30%	13.58%	5.16%
	4th	17.57%	3.59%	16.67%	27.97%	16.00%	17.92%	0.27%	37.8%	62.2%	21.17%	43.97%	18.19%	78.83%	12.24%	5.68%
	5th	13.82%	2.51%	10.95%	29.67%	21.48%	19.76%	1.81%	27.3%	72.7%	16.34%	51.14%	21.57%	83.66%	10.33%	9.43%
	Total	21.80%	3.40%	21.77%	20.78%	13.73%	17.98%	0.54%	47.0%	53.0%	25.20%	34.51%	18.52%	74.80%	12.64%	5.35%
Nicaragua 2001	Poorest quintile	21.42%	10.34%	38.92%	13.62%	5.85%	6.31%	3.54%	70.7%	29.3%	31.75%	19.47%	9.85%	68.25%	0.34%	5.97%
	2nd	17.49%	14.84%	30.03%	18.48%	8.63%	5.47%	5.06%	62.4%	37.6%	32.33%	27.11%	10.53%	67.67%	0.37%	5.10%
	3rd	18.87%	16.92%	18.61%	25.26%	9.18%	5.84%	5.31%	54.4%	45.6%	35.79%	34.44%	11.15%	64.21%	0.30%	5.54%
	4th	14.78%	15.06%	15.96%	27.91%	14.93%	5.94%	5.42%	45.8%	54.2%	29.84%	42.84%	11.36%	70.16%	0.75%	5.19%
	5th	8.57%	13.97%	11.38%	24.99%	26.03%	8.77%	6.29%	33.9%	66.1%	22.55%	51.02%	15.05%	77.45%	1.46%	7.31%
	Total	16.23%	14.22%	22.99%	22.05%	12.92%	6.46%	5.12%	53.4%	46.6%	30.45%	34.97%	11.59%	69.55%	0.65%	5.82%
Panama 1997	Poorest quintile	30.10%	8.99%	16.52%	14.62%	5.82%	23.73%	0.24%	55.6%	44.4%	39.09%	20.43%	23.96%	60.91%	18.34%	5.39%
	2nd	22.89%	6.70%	20.33%	26.58%	7.08%	15.71%	0.71%	49.9%	50.1%	29.59%	33.66%	16.42%	70.41%	8.53%	7.18%
	3rd	18.01%	8.25%	16.43%	34.09%	7.26%	14.65%	1.30%	42.7%	57.3%	26.26%	41.36%	15.96%	73.74%	7.96%	6.69%
	4th	15.73%	5.81%	12.63%	35.86%	11.75%	16.78%	1.43%	34.2%	65.8%	21.54%	47.62%	18.21%	78.46%	8.89%	7.90%
	5th	12.53%	3.63%	7.36%	38.30%	14.21%	19.91%	4.05%	23.5%	76.5%	16.16%	52.52%	23.96%	83.84%	12.38%	7.53%
	Total	19.84%	6.67%	14.65%	29.91%	9.23%	18.15%	1.55%	41.2%	58.8%	26.51%	39.14%	19.70%	73.49%	11.21%	6.94%
Panama 2003	Poorest quintile	35.32%	10.00%	24.80%	10.10%	11.29%	8.36%	0.13%	70.1%	29.9%	45.32%	21.38%	8.49%	54.68%	3.53%	4.83%
	2nd	22.63%	6.83%	22.47%	22.77%	9.57%	15.38%	0.35%	51.9%	48.1%	29.46%	32.34%	15.73%	70.54%	5.49%	9.90%
	3rd	18.58%	6.48%	16.02%	31.44%	11.91%	14.84%	0.73%	41.1%	58.9%	25.05%	43.35%	15.57%	74.85%	4.93%	9.91%
	4th	14.42%	4.58%	12.38%	33.69%	14.76%	18.79%	1.38%	31.4%	68.6%	19.00%	48.45%	20.16%	81.00%	8.61%	10.18%
	5th	9.18%	3.61%	6.29%	38.47%	20.63%	18.07%	3.75%	19.1%	80.9%	12.79%	59.10%	21.82%	87.21%	12.29%	5.78%
	Total	20.01%	6.30%	16.39%	27.31%	13.63%	15.09%	1.27%	42.7%	57.3%	26.31%	40.94%	16.36%	73.69%	6.97%	8.12%

	Quintile	Group I							Group II		Group III				Group IV	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(1) + (2) + (3)	(4) + (5) + (6) + (7)	(1) + (2)	(3) + (4)	(5) + (6)	3) + (4) + (5) + (6) + (7)	Transfers- Public	Transfers- Private
		Crop	Livestock	Ag Wage Labor	Non-Ag Wage Labor	Nonfarm Enterprise	Transfers	Other	Agricultural total	Non-Ag Total	On-farm Total	Non-farm Total	Transfers & Other	Off-farm Total		
Bangladesh 2000	Poorest quintile	10.69%	1.99%	38.14%	19.29%	11.03%	8.72%	10.14%	50.8%	49.2%	12.68%	30.32%	18.86%	87.32%	4.44%	4.28%
	2nd	13.22%	2.17%	25.96%	20.81%	15.47%	9.86%	12.52%	41.4%	58.6%	15.39%	36.27%	22.38%	84.61%	3.40%	6.46%
	3rd	18.44%	2.69%	18.56%	19.57%	16.58%	10.98%	13.20%	39.7%	60.3%	21.13%	36.14%	24.17%	78.87%	3.42%	7.56%
	4th	18.49%	2.41%	11.58%	20.76%	18.08%	14.42%	14.26%	32.5%	67.5%	20.90%	38.84%	28.68%	79.10%	2.49%	11.94%
	5th	15.87%	1.85%	5.87%	18.23%	20.56%	22.07%	15.55%	23.6%	76.4%	17.72%	38.78%	37.62%	82.28%	2.81%	19.26%
	Total	15.34%	2.22%	20.03%	19.73%	16.34%	13.21%	13.13%	37.6%	62.4%	17.56%	36.07%	26.34%	82.44%	3.31%	9.90%
Indonesia 1993	Poorest quintile	40.58%	6.85%	11.86%	9.00%	14.84%	14.34%	2.53%	59.3%	40.7%	47.43%	23.84%	16.87%	52.57%	0.49%	13.85%
	2nd	40.12%	7.99%	7.46%	8.02%	19.15%	14.56%	2.71%	55.6%	44.4%	48.10%	27.17%	17.27%	51.90%	0.85%	13.71%
	3rd	37.29%	7.25%	5.74%	11.95%	18.56%	17.26%	1.96%	50.3%	49.7%	44.53%	30.51%	19.21%	55.47%	1.36%	15.90%
	4th	33.31%	7.10%	5.49%	12.44%	21.94%	15.58%	4.14%	45.9%	54.1%	40.41%	34.38%	19.72%	59.59%	0.89%	14.68%
	5th	30.01%	7.59%	3.45%	8.93%	26.16%	17.18%	6.68%	41.1%	58.9%	37.60%	35.09%	23.86%	62.40%	2.42%	14.76%
	Total	36.25%	7.36%	6.78%	10.07%	20.14%	15.79%	3.60%	50.4%	49.6%	43.61%	30.21%	19.40%	56.39%	1.21%	14.59%
Indonesia 2000	Poorest quintile	29.29%	1.95%	14.19%	17.87%	12.28%	21.48%	2.94%	45.4%	54.6%	31.24%	30.15%	24.42%	68.76%	1.19%	20.29%
	2nd	27.11%	2.72%	10.57%	19.21%	16.15%	21.82%	2.42%	40.4%	59.6%	29.84%	35.36%	24.24%	70.16%	1.26%	20.55%
	3rd	24.75%	2.10%	9.94%	19.66%	18.02%	22.53%	3.00%	36.8%	63.2%	26.85%	37.68%	25.53%	73.15%	1.16%	21.37%
	4th	21.39%	1.97%	8.33%	21.00%	19.73%	23.30%	4.27%	31.7%	68.3%	23.37%	40.73%	27.57%	76.63%	1.34%	21.96%
	5th	16.05%	1.69%	5.26%	23.85%	22.08%	25.56%	5.50%	23.0%	77.0%	17.74%	45.93%	31.06%	82.26%	2.69%	22.87%
	Total	23.76%	2.09%	9.68%	20.30%	17.63%	22.93%	3.61%	35.5%	64.5%	25.65%	37.93%	26.54%	74.15%	1.52%	21.40%
Nepal 1996	Poorest quintile	14.77%	20.92%	36.94%	11.78%	6.33%	8.89%	0.37%	72.6%	27.4%	35.69%	18.11%	9.26%	64.31%	0.65%	8.24%
	2nd	13.51%	25.22%	29.53%	12.12%	9.68%	9.68%	0.24%	68.3%	31.7%	38.73%	21.80%	9.94%	61.27%	1.24%	8.46%
	3rd	13.56%	26.34%	26.44%	11.81%	10.38%	10.43%	1.05%	66.3%	33.7%	39.89%	22.18%	11.48%	60.11%	0.83%	9.60%
	4th	15.83%	26.58%	18.00%	14.19%	12.31%	11.81%	1.27%	60.4%	39.6%	42.42%	26.50%	13.08%	57.58%	2.66%	9.16%
	5th	13.79%	26.77%	10.11%	16.53%	14.54%	15.98%	2.28%	50.7%	49.3%	40.56%	31.07%	18.26%	59.44%	4.98%	11.00%
	Total	14.29%	25.16%	24.22%	13.28%	10.64%	11.36%	1.04%	63.7%	36.3%	39.46%	23.93%	12.40%	60.54%	2.07%	9.29%
Pakistan 1991	Poorest quintile	28.32%	10.57%	10.45%	25.91%	23.51%	1.28%	-0.05%	49.3%	50.7%	38.89%	49.43%	1.23%	61.11%	0.19%	1.09%
	2nd	30.88%	13.36%	7.09%	22.89%	23.59%	1.99%	0.19%	51.3%	48.7%	44.24%	46.49%	2.18%	55.76%	0.67%	1.32%
	3rd	31.36%	11.53%	3.95%	30.85%	19.03%	2.27%	1.00%	46.8%	53.2%	42.89%	49.89%	3.28%	57.11%	1.20%	1.07%
	4th	34.83%	16.13%	2.54%	27.24%	14.87%	3.96%	0.43%	53.5%	46.5%	50.96%	42.11%	4.39%	49.04%	1.86%	2.10%
	5th	32.87%	15.53%	3.74%	27.58%	15.04%	3.33%	1.91%	52.1%	47.9%	48.40%	42.62%	5.25%	51.60%	1.23%	2.10%
	Total	31.65%	13.42%	5.55%	26.89%	19.21%	2.57%	0.70%	50.6%	49.4%	45.07%	46.11%	3.27%	54.93%	1.03%	1.54%
Pakistan 2001	Poorest quintile	20.70%	9.75%	13.92%	34.83%	9.98%	9.00%	1.83%	44.4%	55.6%	30.45%	44.81%	10.83%	69.55%	2.25%	6.75%
	2nd	20.57%	13.04%	9.73%	30.57%	10.79%	12.35%	2.94%	43.3%	56.7%	33.61%	41.37%	15.29%	66.39%	2.08%	10.28%
	3rd	24.12%	13.22%	8.11%	26.09%	9.95%	14.85%	3.68%	45.5%	54.5%	37.35%	36.03%	18.51%	62.65%	2.15%	12.70%
	4th	22.97%	14.60%	5.28%	24.49%	12.02%	15.47%	5.16%	42.9%	57.1%	37.58%	36.51%	20.63%	62.42%	2.71%	12.76%
	5th	24.18%	15.58%	4.54%	20.92%	8.61%	17.57%	8.60%	44.3%	55.7%	39.75%	29.53%	26.17%	60.25%	3.17%	14.40%
	Total	22.51%	13.24%	8.32%	27.38%	10.27%	13.85%	4.44%	44.1%	55.9%	35.75%	37.65%	18.29%	64.25%	2.47%	11.38%
Vietnam 1992	Poorest quintile	53.36%	12.89%	5.18%	3.61%	14.33%	9.99%	0.62%	71.4%	28.6%	66.25%	17.95%	10.61%	33.75%	3.94%	6.06%
	2nd	51.71%	9.57%	6.34%	5.36%	19.39%	7.38%	0.26%	61.27%	32.4%	61.27%	24.75%	7.64%	38.73%	4.14%	3.24%
	3rd	49.04%	11.50%	5.41%	6.89%	21.45%	5.40%	0.32%	66.0%	34.0%	60.54%	28.33%	5.72%	39.46%	3.68%	1.72%
	4th	41.88%	10.26%	5.88%	7.42%	28.94%	5.34%	0.28%	58.0%	42.0%	52.14%	36.36%	5.62%	47.86%	2.76%	2.57%
	5th	37.39%	7.27%	3.79%	8.69%	35.71%	6.56%	0.59%	48.5%	51.5%	44.66%	44.40%	7.14%	55.34%	1.73%	4.83%
	Total	46.67%	10.30%	5.32%	6.39%	23.96%	6.93%	0.41%	62.3%	37.7%	56.97%	30.36%	7.35%	43.03%	3.25%	3.68%
Vietnam 1998	Poorest quintile	42.72%	24.86%	8.51%	7.15%	11.82%	4.74%	0.19%	76.1%	23.9%	67.58%	18.98%	4.93%	32.42%	2.42%	2.32%
	2nd	38.70%	22.59%	8.24%	8.67%	15.74%	5.99%	0.07%	69.5%	30.5%	61.29%	24.41%	6.06%	38.71%	3.15%	2.83%
	3rd	35.36%	22.41%	5.59%	8.91%	21.84%	5.76%	0.12%	63.4%	36.6%	57.77%	30.76%	5.88%	42.23%	3.16%	2.60%
	4th	31.98%	21.66%	4.31%	10.63%	23.09%	7.95%	0.39%	57.9%	42.1%	53.64%	33.71%	8.34%	46.36%	4.21%	3.74%
	5th	26.94%	17.71%	3.07%	10.08%	30.85%	10.71%	0.63%	47.7%	52.3%	44.65%	40.93%	11.35%	55.35%	3.72%	6.99%
	Total	35.14%	21.85%	5.95%	9.09%	20.66%	7.03%	0.28%	62.9%	37.1%	56.99%	29.75%	7.31%	43.01%	3.33%	3.70%

Table AIII.2. Sources of income by expenditure quintile (Shares of Means)

Country	Quintile	Group I							Group II		Group III				Group IV	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(1) + (2) + (3)	(4) + (5) + (6) + (7)	(1) + (2)	(4) + (5)	(6) + (7)	3) + (4) + (5) + (6) + (7)	Transfers- Public	Transfers- Private
		Crop	Livestock	Ag Wage Labor	Non-Ag Wage Labor	Nonfarm Enterprise	Transfers	Other	Agricultural total	Non-Ag Total	On-farm Total	Non-farm Total	Transfers & Other	Off-farm Total		
Albania 2002	Poorest quintile	16.49%	35.32%	3.09%	18.30%	3.76%	22.81%	0.23%	54.9%	45.1%	51.81%	22.06%	23.04%	48.19%	15.87%	6.94%
	2nd	18.84%	33.25%	4.10%	18.89%	3.26%	21.58%	0.08%	56.2%	43.8%	52.09%	22.15%	21.66%	47.91%	13.53%	8.04%
	3rd	16.28%	27.69%	3.80%	21.74%	11.39%	17.97%	1.14%	47.8%	52.2%	43.97%	33.13%	19.10%	56.03%	8.80%	9.16%
	4th	28.91%	22.61%	1.89%	18.18%	7.93%	19.99%	0.49%	53.4%	46.6%	51.52%	26.10%	20.49%	48.48%	9.25%	10.74%
	5th	17.85%	24.10%	0.45%	15.47%	2.97%	38.17%	0.98%	42.4%	57.6%	41.95%	18.45%	39.15%	58.05%	17.84%	20.33%
	Total	20.15%	28.15%	2.64%	18.55%	6.08%	23.84%	0.59%	50.9%	49.1%	48.30%	24.63%	24.43%	51.70%	12.75%	11.09%
Albania 2005	Poorest quintile	16.18%	22.31%	5.32%	19.56%	10.72%	22.87%	3.04%	43.8%	56.2%	38.49%	30.28%	25.91%	61.51%	14.49%	8.38%
	2nd	13.14%	18.09%	5.90%	24.85%	18.38%	3.01%	37.1%	62.9%	31.23%	41.47%	21.39%	68.77%	10.84%	7.54%	
	3rd	13.55%	18.15%	3.73%	27.42%	13.23%	20.48%	3.42%	35.4%	64.6%	31.71%	40.66%	23.91%	68.29%	10.85%	9.63%
	4th	11.77%	13.62%	1.93%	25.50%	25.63%	17.87%	3.69%	27.3%	72.7%	25.39%	51.13%	21.55%	74.61%	8.17%	9.70%
	5th	11.86%	11.72%	2.07%	24.51%	28.43%	18.32%	3.10%	25.6%	74.4%	23.58%	52.93%	21.42%	76.42%	7.66%	10.66%
	Total	12.95%	15.92%	3.46%	24.71%	20.46%	19.23%	3.28%	32.3%	67.7%	28.87%	45.16%	22.51%	71.13%	9.85%	9.38%
Bulgaria 1995	Poorest quintile	13.15%	18.73%	16.98%	18.65%	3.28%	28.65%	0.56%	48.9%	51.1%	31.88%	21.93%	29.21%	68.12%	26.31%	2.33%
	2nd	12.02%	23.60%	8.45%	16.44%	8.66%	28.92%	1.91%	44.1%	55.9%	35.62%	25.10%	30.83%	64.38%	27.60%	1.32%
	3rd	14.90%	24.47%	11.93%	19.20%	0.11%	27.20%	2.19%	51.3%	48.7%	39.37%	19.31%	29.39%	60.63%	24.77%	2.43%
	4th	16.11%	27.70%	9.20%	17.04%	1.94%	25.49%	2.52%	53.0%	47.0%	43.81%	18.98%	28.01%	56.19%	23.44%	2.04%
	5th	14.19%	22.04%	8.84%	18.70%	15.74%	18.32%	2.18%	45.1%	54.9%	36.22%	34.44%	20.49%	63.78%	15.68%	2.63%
	Total	14.23%	23.60%	10.59%	18.02%	6.59%	24.98%	1.98%	48.4%	51.6%	37.83%	24.61%	26.97%	62.17%	22.80%	2.19%
Bulgaria 2001	Poorest quintile	4.38%	8.00%	12.54%	11.01%	-0.02%	63.35%	0.73%	24.9%	75.1%	12.38%	10.99%	64.08%	87.62%	59.85%	3.50%
	2nd	5.01%	14.75%	19.87%	19.86%	-3.11%	42.75%	0.78%	39.7%	60.3%	19.76%	16.75%	43.53%	80.24%	40.64%	2.12%
	3rd	8.95%	14.08%	11.56%	18.98%	-1.83%	47.44%	0.82%	65.4%	34.6%	23.03%	17.15%	48.27%	76.97%	43.53%	3.92%
	4th	3.73%	13.15%	20.37%	18.99%	-0.52%	42.33%	1.95%	37.3%	62.7%	16.88%	18.47%	44.28%	83.12%	39.74%	2.59%
	5th	4.75%	9.46%	20.43%	23.26%	5.35%	36.05%	0.70%	34.6%	65.4%	14.21%	28.61%	36.75%	85.79%	31.37%	4.68%
	Total	5.47%	12.13%	17.50%	19.40%	0.29%	44.20%	1.01%	35.1%	64.9%	17.59%	19.69%	45.21%	82.41%	40.75%	3.44%
Ghana 1992	Poorest quintile	83.03%	2.84%	1.26%	3.37%	7.97%	1.41%	0.11%	87.1%	12.9%	85.88%	11.35%	1.52%	14.12%	0.11%	1.30%
	2nd	76.51%	1.30%	6.43%	10.86%	2.04%	2.04%	0.04%	80.6%	19.4%	79.32%	17.29%	2.08%	20.68%	0.20%	1.84%
	3rd	72.99%	2.26%	1.50%	7.65%	12.79%	2.64%	0.17%	76.7%	23.3%	75.25%	20.44%	2.81%	24.75%	0.29%	2.36%
	4th	69.24%	2.45%	2.50%	11.00%	11.62%	2.81%	0.38%	74.2%	25.8%	71.69%	22.62%	3.19%	28.31%	0.45%	2.36%
	5th	57.77%	2.09%	3.00%	17.33%	15.21%	4.04%	0.56%	62.9%	37.1%	59.86%	32.54%	4.60%	40.14%	0.45%	3.60%
	Total	72.35%	2.50%	1.87%	8.89%	11.60%	2.54%	0.24%	76.7%	23.3%	74.86%	20.49%	2.78%	25.14%	0.29%	2.25%
Ghana 1998	Poorest quintile	70.03%	5.45%	1.49%	3.05%	15.73%	3.97%	0.29%	77.0%	23.0%	75.47%	18.77%	4.26%	24.53%	0.23%	3.75%
	2nd	56.97%	3.72%	0.68%	13.10%	21.04%	4.20%	0.30%	61.4%	38.6%	60.69%	34.13%	4.49%	39.31%	0.35%	3.85%
	3rd	58.49%	3.37%	1.64%	11.53%	19.94%	4.73%	0.30%	63.5%	36.5%	61.86%	31.47%	5.03%	38.14%	0.33%	4.40%
	4th	45.08%	4.21%	2.14%	20.89%	22.03%	5.32%	0.34%	51.4%	48.6%	49.28%	42.92%	5.66%	50.72%	0.56%	4.77%
	5th	33.81%	3.20%	2.49%	23.23%	30.20%	6.67%	0.40%	39.5%	60.5%	37.01%	53.43%	7.06%	62.99%	0.61%	6.06%
	Total	51.04%	3.89%	1.75%	15.45%	22.44%	5.11%	0.33%	56.7%	43.3%	54.92%	37.88%	5.44%	45.08%	0.44%	4.67%
Madagascar 1993	Poorest quintile	47.99%	17.88%	12.57%	2.74%	10.51%	6.51%	2.00%	78.2%	21.8%	65.67%	13.26%	8.51%	34.33%	0.00%	6.51%
	2nd	57.24%	16.94%	7.94%	3.04%	9.31%	3.95%	1.57%	82.1%	17.9%	74.18%	12.35%	5.53%	25.82%	0.04%	3.92%
	3rd	58.85%	14.17%	5.90%	5.86%	10.31%	3.28%	1.62%	78.9%	21.1%	73.02%	16.17%	4.90%	26.98%	0.08%	3.20%
	4th	62.11%	12.79%	4.70%	5.58%	8.01%	3.82%	2.99%	80.6%	19.4%	74.90%	13.59%	6.81%	25.10%	0.06%	3.76%
	5th	56.33%	13.13%	2.65%	4.96%	18.41%	2.74%	1.78%	72.1%	27.9%	69.46%	23.37%	4.52%	30.54%	0.18%	2.56%
	Total	57.11%	14.59%	6.05%	4.63%	11.83%	3.80%	1.99%	77.8%	22.2%	71.70%	16.46%	5.79%	28.30%	0.08%	3.72%
Malawi 2004	Poorest quintile	61.36%	1.26%	15.51%	7.50%	9.30%	4.96%	0.11%	78.1%	21.9%	62.62%	16.80%	5.08%	37.38%	2.09%	2.87%
	2nd	71.05%	1.35%	9.76%	6.64%	7.62%	3.46%	0.12%	82.2%	17.8%	72.40%	14.26%	3.58%	27.60%	1.45%	2.02%
	3rd	67.60%	1.36%	7.71%	9.71%	9.76%	3.57%	0.29%	76.7%	23.3%	68.96%	19.47%	3.86%	31.04%	1.24%	2.33%
	4th	69.65%	1.15%	5.86%	10.98%	9.19%	2.89%	0.27%	76.7%	23.3%	70.80%	20.17%	3.16%	29.20%	1.03%	1.86%
	5th	58.63%	0.81%	5.47%	21.06%	10.89%	2.56%	0.59%	64.9%	35.1%	59.44%	31.95%	3.15%	40.56%	0.72%	1.84%
	Total	65.46%	1.14%	7.94%	12.36%	9.50%	3.27%	0.32%	74.5%	25.5%	66.60%	21.87%	3.59%	33.40%	1.18%	2.09%
Nigeria 2004	Poorest quintile	54.15%	1.29%	32.37%	7.54%	4.38%	0.15%	0.10%	87.8%	12.2%	55.45%	11.92%	0.26%	44.55%	0.05%	0.10%
	2nd	68.08%	1.85%	9.71%	10.26%	9.45%	0.39%	0.25%	79.6%	20.4%	69.93%	19.71%	0.65%	30.07%	0.20%	0.20%
	3rd	56.98%	2.00%	10.31%	18.93%	10.63%	0.64%	0.51%	69.3%	30.7%	58.98%	29.55%	1.15%	41.02%	0.28%	0.36%
	4th	50.74%	3.16%	10.93%	20.81%	13.02%	0.86%	0.48%	64.8%	35.2%	53.90%	33.83%	1.34%	46.10%	0.23%	0.64%
	5th	34.44%	4.29%	3.02%	35.48%	20.75%	1.53%	0.49%	41.8%	58.2%	38.73%	56.23%	2.02%	61.27%	0.28%	1.24%
	Total	52.66%	2.52%	13.44%	18.67%	11.63%	0.72%	0.37%	68.6%	31.4%	55.18%	30.30%	1.09%	44.82%	0.21%	0.51%

		Group I						Group II		Group III				Group IV		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(1) + (2) + (3)	(4) + (5) + (6) + (7)	(1) + (2)	(3) + (4)	(5) + (6)	(3) + (4) + (5) + (6) + (7)		
Quintile		Crop	Livestock	Ag Wage Labor	Non-Ag Wage Labor	Nonfarm Enterprise	Transfers	Other	Agricultural total	Non-Ag Total	On-farm Total	Non-farm Total	Transfers & Other	Off-farm Total	Transfers-Public	Transfers-Private
Ecuador 1995	Poorest quintile	17.36%	10.45%	34.28%	19.85%	13.49%	4.13%	0.44%	62.1%	37.9%	27.81%	33.33%	4.57%	72.19%	0.89%	3.24%
	2nd	16.95%	10.69%	32.05%	21.22%	14.54%	3.70%	0.85%	59.7%	40.3%	27.64%	35.76%	4.55%	72.36%	0.38%	3.32%
	3rd	16.47%	9.81%	24.83%	23.56%	20.07%	3.65%	1.60%	51.1%	48.9%	26.29%	43.63%	5.26%	73.71%	0.24%	3.42%
	4th	17.43%	11.37%	14.91%	22.49%	24.84%	4.63%	4.34%	43.7%	56.3%	28.79%	47.33%	8.96%	71.21%	0.84%	3.79%
	5th	12.46%	7.96%	9.23%	23.33%	37.56%	4.22%	5.25%	29.6%	70.4%	20.42%	60.89%	9.47%	79.58%	0.83%	3.39%
	Total	15.91%	9.95%	21.46%	22.28%	23.50%	4.09%	2.81%	47.3%	52.7%	25.86%	45.78%	6.90%	74.14%	0.64%	3.45%
Ecuador 1998	Poorest quintile	20.35%	17.66%	32.49%	17.06%	10.58%	1.56%	0.30%	70.5%	29.5%	38.02%	27.64%	1.86%	61.98%	0.19%	1.37%
	2nd	15.16%	15.01%	28.34%	18.96%	19.73%	2.19%	0.60%	58.5%	41.5%	30.17%	38.70%	2.79%	69.83%	0.54%	1.65%
	3rd	21.84%	13.54%	18.63%	20.44%	23.28%	1.77%	0.94%	54.0%	46.4%	35.38%	43.72%	2.71%	65.06%	0.32%	1.45%
	4th	15.94%	11.28%	14.14%	28.44%	25.67%	3.17%	1.00%	41.4%	58.3%	27.22%	54.12%	4.17%	72.43%	1.28%	1.88%
	5th	14.00%	7.75%	7.00%	32.69%	33.00%	2.43%	3.00%	28.7%	71.1%	21.75%	65.69%	5.43%	78.12%	1.15%	1.29%
	Total	17.14%	12.44%	18.43%	24.75%	23.92%	2.30%	1.35%	48.0%	52.3%	29.59%	48.66%	3.65%	70.74%	0.77%	1.53%
Guatemala 2000	Poorest quintile	23.44%	2.24%	33.56%	15.76%	11.56%	13.35%	0.09%	59.2%	40.8%	25.68%	27.32%	13.44%	74.32%	10.70%	2.66%
	2nd	22.06%	3.28%	24.28%	19.86%	15.42%	15.01%	0.09%	49.6%	50.4%	25.34%	35.28%	15.09%	74.66%	11.07%	3.94%
	3rd	16.12%	3.84%	19.67%	31.36%	14.03%	14.52%	0.47%	39.6%	60.4%	19.96%	45.38%	14.99%	80.04%	9.79%	4.73%
	4th	12.40%	2.61%	15.47%	38.98%	17.62%	12.72%	0.19%	30.5%	69.5%	15.01%	56.60%	12.91%	84.99%	8.16%	4.55%
	5th	6.36%	2.40%	9.41%	36.53%	28.28%	14.62%	2.41%	18.2%	81.8%	8.76%	64.81%	17.02%	91.24%	7.85%	6.77%
	Total	14.75%	2.86%	18.78%	30.20%	18.54%	14.06%	0.81%	36.4%	63.6%	17.60%	48.74%	14.87%	82.40%	9.26%	4.80%
Nicaragua 2001	Poorest quintile	13.46%	7.49%	43.89%	20.66%	7.01%	4.23%	3.25%	64.8%	35.2%	20.95%	27.68%	7.48%	79.05%	0.17%	4.06%
	2nd	13.14%	10.17%	30.98%	24.68%	11.82%	4.42%	4.78%	54.3%	45.7%	23.31%	36.50%	9.20%	76.69%	0.78%	3.64%
	3rd	13.24%	12.68%	17.40%	33.31%	14.28%	4.26%	4.84%	43.3%	56.7%	25.92%	47.58%	9.10%	74.08%	0.38%	3.88%
	4th	9.74%	12.03%	14.41%	37.74%	17.09%	4.69%	4.29%	36.2%	63.8%	21.77%	54.83%	8.98%	78.22%	0.77%	3.92%
	5th	6.40%	10.74%	8.61%	34.58%	27.35%	6.54%	5.80%	25.7%	74.3%	17.13%	61.92%	12.34%	82.87%	1.23%	5.30%
	Total	10.73%	10.85%	20.76%	31.25%	16.73%	4.96%	4.72%	42.3%	57.7%	21.57%	47.98%	9.68%	78.43%	0.73%	4.23%
Panama 1997	Poorest quintile	24.80%	4.82%	19.01%	27.63%	9.02%	14.52%	0.20%	48.6%	51.4%	29.62%	36.65%	14.71%	70.38%	11.69%	2.82%
	2nd	17.47%	5.59%	21.47%	36.81%	7.37%	10.50%	0.80%	44.5%	55.5%	23.07%	44.17%	11.29%	76.93%	7.78%	2.72%
	3rd	10.89%	4.93%	14.00%	50.20%	10.39%	8.62%	0.97%	29.8%	70.2%	15.81%	60.59%	9.59%	84.19%	5.81%	2.81%
	4th	8.33%	4.48%	11.58%	52.96%	12.60%	8.95%	1.10%	24.4%	75.6%	12.81%	65.56%	10.04%	87.19%	6.34%	2.60%
	5th	4.44%	2.51%	5.15%	59.49%	14.98%	9.96%	3.48%	12.1%	87.9%	6.95%	74.48%	13.43%	93.05%	7.85%	2.11%
	Total	11.29%	4.26%	12.87%	48.44%	11.48%	10.08%	1.58%	28.4%	71.6%	15.54%	59.92%	11.66%	84.46%	7.53%	2.55%
Panama 2003	Poorest quintile	23.96%	5.31%	31.34%	15.00%	16.92%	7.33%	0.14%	60.6%	39.4%	29.27%	31.92%	7.47%	70.73%	4.62%	2.71%
	2nd	14.34%	3.87%	22.28%	37.75%	11.32%	10.14%	0.31%	40.5%	59.5%	18.21%	49.06%	10.45%	81.79%	5.91%	4.23%
	3rd	11.01%	3.88%	16.95%	45.57%	12.62%	9.34%	0.62%	31.8%	68.2%	14.90%	58.19%	9.96%	85.10%	5.19%	4.16%
	4th	7.52%	2.79%	11.36%	48.64%	16.19%	12.27%	1.24%	21.7%	78.3%	10.31%	64.82%	13.51%	89.69%	8.52%	3.75%
	5th	3.00%	1.88%	5.09%	55.56%	21.19%	10.67%	2.61%	10.0%	90.0%	4.88%	76.76%	13.28%	95.12%	7.98%	2.69%
	Total	9.91%	3.21%	14.71%	44.36%	16.26%	10.31%	1.24%	27.8%	72.2%	13.11%	60.62%	11.55%	86.89%	6.84%	3.47%

		Group I							Group II		Group III				Group IV		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(1) + (2) + (3)	(4) + (5) + (6) + (7)	(1) + (2)	(3) + (4)	(5) + (6)	(3) + (4) + (5) + (6) + (7)			
		Quintile	Crop	Livestock	Ag Wage Labor	Non-Ag Wage Labor	Nonfarm Enterprise	Transfers	Other	Agricultural total	Non-Ag Total	On-farm Total	Non-farm Total	Transfers & Other	Off-farm Total	Transfers-Public	Transfers-Private
Bangladesh 2000	Poorest quintile	10.93%	2.33%	33.73%	22.50%	12.32%	9.15%	9.04%	47.0%	53.0%	13.27%	34.82%	18.19%	86.73%	3.32%	5.84%	
	2nd	12.73%	2.09%	21.86%	22.37%	10.41%	11.27%	11.27%	36.7%	63.3%	14.82%	41.64%	21.68%	85.18%	2.52%	7.89%	
	3rd	16.24%	1.92%	15.17%	20.89%	19.67%	13.72%	12.40%	33.3%	66.7%	18.16%	40.56%	26.11%	81.84%	3.09%	10.62%	
	4th	15.15%	1.66%	8.06%	22.52%	21.72%	18.20%	12.69%	24.9%	75.1%	16.81%	44.24%	30.89%	83.19%	2.41%	15.78%	
	5th	10.76%	0.94%	3.55%	19.62%	28.87%	23.29%	12.99%	15.2%	84.8%	11.69%	48.49%	36.27%	88.31%	2.60%	20.68%	
	Total	13.08%	1.62%	12.98%	21.25%	22.21%	16.78%	12.09%	27.7%	72.3%	14.69%	43.45%	28.88%	85.31%	2.72%	14.06%	
Indonesia 1993	Poorest quintile	34.01%	8.00%	8.24%	11.95%	20.79%	11.81%	5.20%	50.2%	49.8%	42.01%	32.74%	17.01%	57.99%	2.77%	9.04%	
	2nd	33.89%	6.46%	3.41%	11.84%	31.79%	8.89%	3.71%	43.8%	56.2%	40.35%	43.63%	12.61%	59.65%	1.79%	7.10%	
	3rd	32.15%	8.15%	2.16%	12.17%	26.31%	13.78%	5.28%	42.5%	57.5%	40.30%	38.48%	19.05%	59.70%	4.21%	9.57%	
	4th	24.02%	12.22%	1.91%	9.06%	35.55%	10.02%	7.21%	38.2%	61.8%	36.24%	44.61%	17.23%	63.76%	1.45%	8.57%	
	5th	20.76%	8.90%	0.98%	6.08%	40.27%	14.25%	8.78%	30.6%	69.4%	29.65%	46.34%	23.03%	70.35%	5.24%	9.01%	
	Total	27.29%	9.03%	2.66%	9.51%	33.04%	11.96%	6.52%	39.0%	61.0%	36.32%	42.55%	18.46%	63.68%	3.28%	8.68%	
Indonesia 2000	Poorest quintile	20.11%	2.08%	16.38%	30.18%	14.96%	13.51%	2.78%	38.6%	61.4%	22.19%	45.14%	16.29%	77.81%	0.57%	12.94%	
	2nd	19.25%	2.91%	10.02%	30.81%	21.74%	13.01%	2.25%	32.2%	67.8%	22.17%	52.55%	15.26%	77.83%	1.18%	11.83%	
	3rd	17.32%	2.18%	11.17%	31.11%	22.20%	13.11%	2.92%	30.7%	69.3%	19.50%	53.31%	16.02%	80.50%	0.84%	12.26%	
	4th	13.66%	1.67%	8.34%	35.26%	24.51%	13.01%	3.54%	23.7%	76.3%	15.33%	59.78%	16.55%	84.67%	1.22%	11.80%	
	5th	10.69%	1.70%	5.00%	38.41%	27.47%	13.03%	3.70%	17.4%	82.6%	12.39%	65.88%	16.73%	87.61%	1.96%	11.07%	
	Total	15.36%	2.04%	9.33%	33.88%	23.14%	13.10%	3.14%	26.7%	73.3%	17.41%	57.02%	16.24%	82.59%	1.26%	11.84%	
Nepal 1996	Poorest quintile	9.44%	23.33%	35.80%	12.35%	8.59%	10.08%	0.40%	68.6%	31.4%	32.77%	20.95%	10.48%	67.23%	1.81%	8.28%	
	2nd	11.05%	25.60%	25.49%	14.60%	13.01%	9.97%	0.28%	62.1%	37.9%	36.64%	27.61%	10.25%	63.36%	1.32%	8.65%	
	3rd	11.28%	26.22%	20.80%	14.81%	14.81%	11.53%	0.55%	58.3%	41.7%	37.50%	29.62%	12.08%	62.50%	1.35%	10.18%	
	4th	12.25%	23.91%	11.19%	20.82%	17.99%	12.00%	1.84%	47.4%	52.6%	36.16%	38.81%	13.84%	63.84%	2.79%	9.21%	
	5th	7.82%	22.98%	4.97%	28.07%	17.03%	16.47%	2.66%	35.8%	64.2%	30.80%	45.11%	19.13%	69.20%	4.75%	11.72%	
	Total	10.30%	24.35%	17.78%	19.09%	14.81%	12.38%	1.29%	52.4%	47.6%	34.64%	33.90%	13.67%	65.36%	2.59%	9.79%	
Pakistan 1991	Poorest quintile	41.67%	8.56%	5.29%	17.67%	25.06%	1.69%	0.05%	55.5%	44.5%	50.24%	42.73%	1.74%	49.76%	0.10%	1.58%	
	2nd	40.89%	17.02%	3.74%	17.82%	18.21%	1.72%	0.61%	61.6%	38.4%	57.91%	36.02%	2.33%	42.09%	0.36%	1.36%	
	3rd	52.98%	11.60%	1.43%	16.21%	16.00%	1.35%	0.42%	66.0%	34.0%	64.59%	32.21%	1.77%	35.41%	0.39%	0.95%	
	4th	48.38%	19.08%	1.29%	18.64%	10.62%	1.31%	0.69%	68.7%	31.3%	67.46%	29.25%	2.00%	32.54%	0.32%	0.99%	
	5th	55.61%	12.24%	1.24%	14.73%	14.31%	1.19%	0.69%	69.1%	30.9%	67.85%	29.04%	1.87%	32.15%	0.42%	0.77%	
	Total	49.55%	13.62%	2.22%	16.67%	16.02%	1.39%	0.53%	65.4%	34.6%	63.17%	32.69%	1.92%	36.83%	0.34%	1.05%	
Pakistan 2001	Poorest quintile	35.34%	8.60%	9.38%	28.97%	8.87%	6.68%	2.15%	53.3%	46.7%	43.94%	37.84%	8.83%	56.06%	1.13%	5.55%	
	2nd	29.88%	10.63%	6.69%	26.63%	12.39%	9.63%	4.15%	47.2%	52.8%	40.50%	39.02%	13.78%	59.50%	1.26%	8.38%	
	3rd	32.83%	11.75%	5.51%	23.99%	10.19%	11.45%	4.28%	50.1%	49.9%	44.58%	34.18%	15.73%	55.42%	1.40%	10.04%	
	4th	29.92%	12.36%	3.97%	21.44%	14.31%	11.86%	6.14%	46.3%	53.7%	42.29%	35.75%	18.00%	57.71%	1.90%	9.96%	
	5th	28.21%	13.74%	3.45%	20.31%	11.19%	12.58%	10.52%	45.4%	54.6%	41.95%	31.50%	23.10%	58.05%	1.93%	10.64%	
	Total	30.95%	11.64%	5.53%	23.86%	11.52%	10.70%	5.80%	48.1%	51.9%	42.59%	35.38%	16.50%	57.41%	1.56%	9.14%	
Vietnam 1992	Poorest quintile	36.24%	17.68%	5.50%	3.18%	31.31%	5.69%	0.40%	59.4%	40.6%	53.92%	34.49%	6.09%	46.08%	2.29%	3.40%	
	2nd	34.14%	14.15%	4.55%	4.06%	38.22%	4.66%	0.22%	52.8%	47.2%	48.29%	42.27%	4.88%	51.71%	2.59%	2.07%	
	3rd	33.46%	15.51%	3.90%	5.25%	37.22%	4.38%	0.27%	52.9%	47.1%	48.98%	42.47%	4.65%	51.02%	2.67%	1.71%	
	4th	24.95%	10.78%	3.48%	5.58%	51.32%	3.67%	0.22%	39.2%	60.8%	35.73%	56.91%	3.89%	64.27%	2.10%	1.57%	
	5th	20.64%	7.11%	2.52%	6.63%	58.23%	4.27%	0.59%	30.3%	69.7%	27.75%	64.86%	4.87%	72.25%	1.12%	3.15%	
	Total	27.41%	11.54%	3.58%	5.42%	47.35%	4.32%	0.37%	42.5%	57.5%	38.96%	52.77%	4.69%	61.04%	1.97%	2.36%	
Vietnam 1998	Poorest quintile	33.19%	21.97%	8.87%	7.43%	24.75%	3.73%	0.07%	64.0%	36.0%	55.15%	32.18%	3.80%	44.85%	1.99%	1.73%	
	2nd	29.58%	18.72%	7.12%	8.59%	31.80%	4.14%	0.04%	55.4%	44.6%	48.30%	40.40%	4.18%	51.70%	2.34%	1.81%	
	3rd	23.35%	15.55%	4.14%	7.61%	45.96%	3.33%	0.07%	43.0%	57.0%	38.90%	53.57%	3.39%	61.10%	1.91%	1.41%	
	4th	20.23%	14.52%	2.98%	9.24%	48.84%	3.84%	0.19%	37.8%	62.2%	34.81%	58.18%	4.04%	65.19%	2.23%	1.61%	
	5th	12.70%	8.84%	1.62%	7.12%	65.06%	4.29%	0.36%	23.2%	76.8%	21.54%	72.13%	4.65%	78.46%	1.64%	2.65%	
	Total	21.32%	14.37%	4.05%	7.95%	48.22%	3.91%	0.18%	39.7%	60.3%	35.69%	56.17%	4.10%	64.31%	1.97%	1.94%	

Table AIII.3. Participation in income activities, by expenditure quintile

		Group II							Group III				Group IV			
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(1) + (2) + (3)	(4) + (5) + (6) + (7)	(1) + (2)	(3) + (4)	(5) + (6)	3) + (4) + (5) + (6) + (7)	Transfers- Public	Transfers- Private
Quintile	Crop	Livestock	Ag Wage Labor	Non-Ag Wage Labor	Nonfarm Enterprise	Transfers	Other	Agricultural total	Non-Ag Total	On-farm Total	Non-farm Total	Transfers & Other	Off-farm Total			
Albania 2002	Poorest quintile	95.41%	93.82%	7.07%	25.45%	5.97%	72.41%	2.95%	96.26%	83.97%	96.26%	30.06%	73.25%	87.45%	69.85%	17.85%
	2nd	92.57%	89.12%	6.05%	30.36%	6.08%	67.86%	1.23%	93.64%	82.24%	93.52%	34.85%	67.86%	83.55%	58.07%	23.88%
	3rd	92.66%	84.81%	4.96%	32.62%	12.89%	58.54%	2.80%	93.27%	80.77%	92.66%	42.98%	59.59%	82.42%	45.43%	23.41%
	4th	88.86%	81.90%	3.62%	30.80%	13.80%	62.39%	4.47%	91.16%	86.10%	90.24%	41.25%	63.36%	87.02%	47.26%	30.96%
	5th	89.39%	80.60%	1.80%	20.14%	9.85%	77.79%	7.08%	91.67%	92.87%	91.67%	27.93%	79.77%	93.70%	64.15%	47.67%
	Total	91.78%	86.05%	4.66%	27.88%	9.72%	67.79%	3.70%	93.20%	85.19%	92.87%	35.42%	68.76%	86.62%	56.95%	28.74%
Albania 2005	Poorest quintile	93.02%	83.39%	5.26%	17.86%	5.96%	78.93%	15.46%	94.67%	86.74%	94.10%	22.47%	81.20%	89.66%	70.03%	28.90%
	2nd	95.85%	84.10%	7.87%	28.51%	8.78%	71.76%	16.48%	96.59%	86.38%	96.33%	35.83%	72.28%	88.59%	60.91%	33.77%
	3rd	95.69%	86.66%	5.36%	34.09%	8.34%	71.40%	16.83%	95.82%	89.89%	95.82%	39.99%	71.82%	91.54%	59.40%	39.66%
	4th	94.27%	87.15%	3.73%	33.33%	15.59%	72.73%	23.79%	94.62%	92.81%	94.62%	46.54%	74.70%	93.08%	52.88%	51.10%
	5th	95.88%	85.47%	4.26%	36.52%	15.91%	76.96%	21.46%	96.22%	95.69%	96.22%	49.21%	78.73%	96.79%	51.22%	58.77%
	Total	94.94%	85.36%	5.29%	30.05%	10.91%	74.36%	18.80%	95.58%	90.30%	95.42%	38.80%	76.76%	91.93%	58.90%	42.43%
Bulgaria 1995	Poorest quintile	80.61%	68.48%	19.39%	17.58%	1.82%	71.52%	9.09%	84.24%	78.18%	83.64%	19.39%	72.12%	81.82%	69.70%	9.70%
	2nd	87.27%	80.61%	12.12%	19.39%	2.42%	80.00%	21.21%	90.91%	88.48%	89.09%	20.00%	80.61%	91.52%	79.39%	16.36%
	3rd	89.63%	85.37%	20.73%	22.56%	0.61%	82.93%	22.56%	90.85%	90.85%	90.85%	23.17%	85.37%	92.68%	78.05%	23.78%
	4th	95.76%	87.88%	16.36%	23.03%	2.42%	85.45%	27.27%	96.97%	93.33%	96.36%	24.85%	86.06%	96.97%	81.82%	27.27%
	5th	93.29%	85.98%	19.51%	29.27%	6.71%	78.05%	21.95%	96.34%	93.90%	95.12%	33.54%	83.54%	96.95%	69.51%	35.37%
	Total	89.31%	81.85%	17.62%	22.36%	2.79%	79.59%	20.41%	91.86%	88.94%	91.01%	24.18%	81.53%	91.98%	75.70%	22.48%
Bulgaria 2001	Poorest quintile	39.20%	33.52%	11.93%	9.09%	1.14%	90.91%	8.52%	53.98%	91.48%	48.30%	10.23%	90.91%	92.61%	89.77%	7.39%
	2nd	66.86%	62.86%	18.29%	22.29%	1.14%	89.14%	10.29%	78.86%	93.14%	73.14%	23.43%	90.29%	97.14%	88.00%	6.29%
	3rd	80.11%	77.84%	14.20%	22.73%	2.27%	94.32%	12.50%	90.91%	96.59%	88.64%	24.43%	94.32%	98.30%	92.05%	10.80%
	4th	78.86%	77.14%	21.14%	21.14%	3.43%	87.43%	18.86%	90.29%	94.86%	86.86%	24.00%	91.43%	98.29%	86.29%	8.57%
	5th	76.57%	74.86%	17.14%	25.71%	4.00%	84.57%	12.57%	86.86%	95.43%	84.57%	29.14%	86.29%	97.71%	83.43%	12.57%
	Total	68.30%	65.22%	16.53%	20.18%	2.39%	89.28%	12.54%	80.16%	94.30%	76.28%	22.23%	90.65%	96.81%	87.91%	9.12%
Ghana 1992	Poorest quintile	96.90%	62.93%	3.45%	7.41%	41.55%	28.97%	2.59%	96.90%	62.76%	96.90%	46.03%	30.86%	64.48%	2.07%	27.41%
	2nd	91.03%	60.52%	3.28%	11.21%	44.14%	37.24%	2.41%	91.90%	72.59%	91.90%	51.03%	39.14%	73.62%	3.28%	34.83%
	3rd	89.64%	53.71%	3.63%	13.64%	46.46%	38.17%	7.77%	90.16%	74.09%	89.81%	53.54%	41.97%	75.30%	2.59%	36.79%
	4th	85.34%	50.69%	4.31%	14.83%	49.48%	39.31%	7.41%	86.38%	77.24%	85.34%	57.76%	43.97%	78.97%	2.76%	37.41%
	5th	73.23%	42.14%	4.32%	21.76%	43.52%	39.90%	10.19%	75.82%	79.45%	74.78%	61.14%	45.42%	81.52%	4.32%	36.79%
	Total	87.23%	54.00%	3.80%	13.77%	45.03%	36.71%	6.07%	88.23%	73.22%	87.75%	53.90%	40.27%	74.78%	3.00%	34.64%
Ghana 1998	Poorest quintile	96.41%	60.95%	2.30%	6.28%	28.13%	38.41%	13.46%	97.08%	62.00%	96.93%	31.59%	45.28%	63.18%	1.40%	37.93%
	2nd	94.16%	59.60%	2.75%	16.07%	43.83%	41.32%	11.32%	95.11%	75.80%	95.11%	51.25%	47.15%	76.72%	1.25%	40.30%
	3rd	90.65%	52.19%	3.49%	17.28%	37.77%	40.82%	12.75%	91.73%	74.05%	91.49%	47.07%	48.82%	75.05%	1.56%	39.74%
	4th	85.67%	45.87%	5.82%	23.62%	43.92%	42.55%	13.52%	87.30%	79.94%	87.12%	57.33%	49.63%	81.58%	2.13%	41.55%
	5th	71.84%	38.57%	4.32%	25.30%	46.97%	43.59%	16.35%	73.42%	81.72%	72.93%	59.45%	51.70%	83.04%	2.93%	42.45%
	Total	87.75%	51.45%	3.74%	17.70%	40.12%	41.34%	13.48%	88.94%	74.69%	88.72%	49.33%	48.52%	75.91%	1.86%	40.39%
Madagascar 1993	Poorest quintile	94.16%	74.85%	34.56%	8.87%	25.13%	52.30%	12.44%	97.20%	72.82%	96.75%	31.53%	59.10%	81.29%	0.00%	52.30%
	2nd	97.40%	83.34%	31.55%	17.55%	22.63%	46.45%	12.16%	98.60%	66.99%	98.32%	36.34%	52.39%	76.04%	0.06%	46.45%
	3rd	93.21%	82.17%	28.29%	19.43%	18.71%	42.53%	10.43%	95.61%	65.42%	94.58%	34.11%	48.17%	74.33%	0.37%	42.16%
	4th	94.15%	75.47%	19.17%	22.10%	19.54%	39.92%	12.55%	96.31%	64.81%	95.48%	37.79%	46.76%	72.23%	0.30%	39.78%
	5th	88.28%	74.28%	16.53%	23.08%	20.54%	36.08%	9.53%	92.56%	65.04%	91.87%	37.76%	41.38%	71.31%	0.75%	35.93%
	Total	93.44%	78.02%	26.02%	18.20%	21.31%	43.46%	11.42%	96.06%	67.02%	95.40%	35.50%	49.56%	75.04%	0.30%	43.33%
Malawi 2004	Poorest quintile	97.61%	31.44%	67.52%	13.71%	24.92%	88.65%	3.59%	99.13%	92.02%	97.98%	34.84%	88.83%	96.98%	58.67%	74.69%
	2nd	97.07%	38.75%	61.40%	14.64%	26.62%	88.95%	4.40%	98.76%	92.01%	97.55%	37.26%	89.37%	97.06%	57.92%	75.91%
	3rd	96.29%	42.61%	55.80%	14.84%	29.73%	90.76%	5.45%	98.22%	94.47%	96.91%	39.81%	91.20%	97.23%	55.27%	79.14%
	4th	95.61%	42.16%	48.66%	17.01%	34.00%	89.13%	7.70%	97.53%	94.10%	96.14%	46.49%	90.24%	97.02%	54.19%	78.60%
	5th	88.72%	38.50%	41.33%	20.63%	33.79%	87.26%	12.01%	92.32%	94.68%	89.66%	49.84%	88.40%	97.43%	44.71%	78.79%
	Total	95.06%	38.69%	54.94%	16.16%	29.81%	88.95%	6.63%	97.19%	93.45%	95.65%	41.65%	89.61%	97.14%	54.15%	77.43%
Nigeria 2004	Poorest quintile	96.23%	49.76%	4.62%	3.92%	11.51%	2.61%	3.17%	97.12%	18.63%	96.91%	14.42%	5.32%	22.21%	0.86%	1.80%
	2nd	92.78%	47.78%	3.58%	6.47%	16.41%	3.87%	3.06%	93.39%	25.74%	93.36%	21.30%	6.53%	28.04%	0.99%	2.97%
	3rd	89.58%	44.49%	3.96%	9.53%	18.99%	5.54%	4.49%	90.84%	32.51%	90.67%	26.12%	9.28%	35.40%	1.03%	4.70%
	4th	86.75%	41.18%	4.12%	12.11%	21.69%	7.60%	5.32%	88.62%	38.50%	88.38%	30.38%	11.93%	41.22%	1.62%	6.68%
	5th	77.74%	37.15%	2.94%	14.67%	28.04%	12.28%	4.99%	80.52%	48.83%	80.21%	39.00%	16.02%	50.71%	1.94%	10.96%
	Total	88.71%	44.14%	3.85%	9.28%	19.25%	6.33%	4.20%	90.18%	32.69%	89.99%	26.13%	9.76%	35.37%	1.28%	5.38%

	Quintile	Group I							Group II				Group III			Group IV	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(1)+(2)+(3)+(4)+(5)+(6)+(7)		(1)+(2)	(3)+(4)	(5)+(6)	3+(4)+(5)+(6)+(7)			
		Crop	Livestock	Ag Wage Labor	Non-Ag Wage Labor	Nonfarm Enterprise	Transfers	Other	Agricultural total	Non-Ag Total	On-farm Total	Non-farm Total	Transfers & Other	Transfers & Other	Transfers-Public	Transfers-Private	
Ecuador 1995	Poorest quintile	79.14%	83.31%	48.96%	27.36%	27.61%	22.23%	4.20%	95.62%	58.88%	91.09%	44.87%	24.96%	83.98%	2.38%	20.34%	
	2nd	78.84%	87.00%	48.81%	31.78%	38.03%	26.09%	5.01%	96.55%	66.83%	93.89%	53.77%	29.41%	86.32%	2.28%	24.11%	
	3rd	72.89%	87.57%	40.40%	33.11%	37.63%	27.48%	11.16%	96.85%	71.36%	91.88%	55.98%	35.29%	85.39%	1.39%	26.58%	
	4th	68.98%	85.19%	30.85%	34.03%	43.86%	26.11%	14.30%	93.21%	71.73%	89.93%	58.71%	34.94%	83.90%	2.68%	24.10%	
	5th	64.62%	75.47%	25.62%	26.74%	48.02%	32.21%	21.06%	87.77%	78.43%	81.96%	61.04%	45.78%	88.60%	4.03%	29.17%	
	Total	72.90%	83.72%	38.94%	30.61%	39.02%	26.82%	11.14%	94.01%	69.44%	89.76%	54.87%	34.06%	85.63%	2.55%	24.86%	
Ecuador 1998	Poorest quintile	81.40%	87.80%	46.91%	27.67%	25.19%	23.44%	2.88%	96.76%	54.35%	94.08%	43.16%	25.23%	78.14%	1.49%	21.95%	
	2nd	74.35%	87.35%	45.69%	30.01%	27.03%	25.36%	6.99%	95.78%	61.81%	92.48%	45.73%	30.91%	84.12%	3.07%	23.56%	
	3rd	73.01%	85.42%	33.13%	32.19%	35.68%	27.24%	9.09%	93.79%	68.81%	90.75%	53.07%	32.95%	83.34%	1.62%	26.95%	
	4th	63.23%	76.03%	29.96%	37.15%	44.77%	31.71%	13.04%	84.80%	77.79%	80.06%	63.91%	38.78%	89.47%	3.44%	29.97%	
	5th	49.64%	61.22%	18.87%	41.27%	51.90%	30.84%	24.72%	76.34%	82.96%	70.48%	70.84%	46.73%	89.20%	5.49%	26.85%	
	Total	68.37%	79.61%	34.95%	33.64%	36.88%	27.71%	11.31%	89.52%	69.11%	85.61%	55.31%	34.89%	84.84%	3.02%	25.86%	
Guatemala 2000	Poorest quintile	91.44%	68.26%	63.21%	21.80%	28.91%	69.30%	1.77%	97.72%	80.94%	94.24%	43.03%	69.55%	94.95%	64.77%	12.80%	
	2nd	94.35%	71.88%	53.49%	28.56%	38.35%	69.50%	3.19%	98.11%	85.49%	95.98%	54.80%	71.03%	96.09%	64.66%	17.68%	
	3rd	87.16%	66.06%	44.38%	38.34%	34.58%	64.72%	3.37%	94.67%	85.23%	91.16%	58.15%	66.33%	95.70%	58.71%	17.23%	
	4th	80.60%	66.49%	34.40%	42.33%	42.10%	62.95%	3.07%	91.11%	88.17%	88.66%	65.40%	63.71%	95.33%	55.91%	19.93%	
	5th	69.71%	57.87%	17.78%	42.21%	43.48%	60.00%	6.94%	81.13%	88.76%	79.22%	68.57%	62.25%	94.06%	46.56%	25.47%	
	Total	84.66%	66.11%	42.66%	34.64%	37.48%	65.30%	3.67%	92.55%	85.72%	89.86%	57.99%	66.57%	95.23%	58.13%	18.62%	
Nicaragua 2001	Poorest quintile	86.86%	68.04%	61.03%	25.35%	15.13%	32.79%	18.10%	99.23%	59.24%	93.60%	35.41%	36.91%	86.76%	0.69%	32.40%	
	2nd	85.01%	78.29%	48.87%	34.05%	21.11%	36.28%	17.53%	95.46%	70.16%	92.11%	49.00%	40.68%	87.00%	2.12%	36.16%	
	3rd	90.51%	78.79%	33.72%	40.38%	22.50%	38.76%	18.45%	97.59%	70.43%	94.09%	53.06%	42.76%	81.36%	1.14%	38.58%	
	4th	81.71%	78.09%	32.66%	37.96%	28.71%	41.41%	20.59%	92.82%	78.10%	90.79%	56.86%	45.29%	89.60%	2.99%	39.16%	
	5th	82.36%	68.44%	21.04%	39.14%	43.26%	44.25%	22.55%	90.44%	86.47%	88.61%	65.77%	48.25%	92.77%	4.85%	42.25%	
	Total	85.29%	74.33%	39.47%	35.37%	26.14%	38.69%	19.45%	95.11%	72.87%	91.84%	52.01%	42.78%	87.50%	2.36%	37.70%	
Panama 1997	Poorest quintile	75.60%	91.77%	33.38%	28.77%	15.12%	76.72%	1.16%	96.67%	84.34%	96.00%	38.86%	77.13%	91.29%	66.49%	30.94%	
	2nd	68.55%	96.51%	39.10%	43.90%	22.00%	71.31%	4.47%	98.89%	86.86%	98.58%	56.75%	73.11%	93.07%	50.04%	40.68%	
	3rd	60.84%	96.83%	29.17%	48.32%	17.78%	65.24%	5.94%	97.62%	82.21%	97.27%	56.30%	66.53%	92.26%	45.22%	38.77%	
	4th	59.92%	96.73%	20.68%	48.25%	25.52%	66.72%	8.33%	97.61%	88.13%	97.38%	62.52%	68.91%	94.99%	42.77%	41.07%	
	5th	53.25%	93.23%	12.18%	49.78%	30.47%	62.49%	22.11%	94.99%	91.03%	93.85%	66.15%	69.25%	94.86%	40.19%	34.69%	
	Total	63.63%	95.01%	26.90%	43.80%	22.18%	68.50%	8.40%	97.16%	86.51%	96.62%	56.11%	70.98%	93.29%	48.94%	37.23%	
Panama 2003	Poorest quintile	88.39%	79.20%	45.54%	22.96%	24.74%	50.45%	3.21%	95.87%	71.30%	90.74%	40.72%	51.67%	86.05%	7.79%	46.01%	
	2nd	79.24%	69.19%	42.59%	40.73%	23.42%	64.59%	4.72%	90.53%	83.35%	84.79%	53.60%	66.28%	93.94%	14.75%	58.87%	
	3rd	78.27%	66.53%	31.55%	47.97%	25.68%	67.71%	7.43%	88.01%	89.11%	84.30%	60.99%	68.16%	94.89%	11.98%	61.83%	
	4th	76.65%	59.99%	23.06%	49.96%	32.88%	71.46%	14.09%	85.24%	93.06%	81.40%	66.57%	74.56%	97.27%	18.92%	65.43%	
	5th	64.70%	48.11%	8.93%	48.42%	34.53%	67.83%	28.18%	73.44%	94.72%	70.37%	70.06%	75.66%	96.11%	22.27%	60.18%	
	Total	77.45%	64.61%	30.34%	42.01%	28.25%	64.41%	11.52%	86.62%	86.31%	82.33%	58.39%	67.26%	93.65%	15.14%	58.47%	

	Quintile	Crop	Livestock	Group II				Group III				Group IV				
				Ag Wage Labor	Non-Ag Wage Labor	Nonfarm Enterprise	Transfers	Other	Group II		Group III		Transfers - Public	Transfers - Private		
									(1) + (2) + (3)	(4) + (5) + (6) + (7)	(3) + (4)	(5) + (6)			3) + (4) + (5) + (6) + (7)	
Bangladesh 2000	Poorest quintile	50.54%	61.90%	58.63%	29.25%	18.24%	42.22%	46.38%	90.52%	85.06%	76.75%	44.35%	68.22%	98.46%	34.47%	17.03%
	2nd	57.53%	68.96%	44.62%	31.48%	23.25%	43.59%	50.44%	88.42%	89.04%	80.65%	52.02%	70.18%	97.96%	30.61%	20.14%
	3rd	66.09%	71.76%	35.60%	30.97%	27.24%	44.65%	53.76%	90.40%	90.99%	85.77%	53.88%	73.35%	96.72%	30.88%	23.11%
	4th	65.29%	73.02%	24.32%	33.28%	27.60%	50.97%	57.00%	86.62%	92.23%	82.09%	56.93%	76.41%	96.42%	32.32%	29.61%
	5th	66.66%	76.14%	13.82%	34.43%	32.04%	61.26%	67.25%	87.06%	95.38%	84.77%	58.24%	84.55%	97.32%	34.17%	42.54%
	Total	61.22%	70.35%	35.40%	31.88%	25.67%	48.54%	54.96%	88.60%	90.54%	82.00%	53.08%	74.54%	97.37%	32.49%	26.48%
Indonesia 1993	Poorest quintile	58.56%	27.56%	26.56%	20.17%	22.88%	63.19%	6.80%	77.75%	77.75%	63.24%	39.24%	64.56%	84.78%	3.66%	62.39%
	2nd	61.32%	29.25%	24.41%	22.11%	28.69%	68.69%	8.23%	77.57%	83.10%	64.95%	45.03%	70.38%	87.34%	4.01%	67.24%
	3rd	55.81%	27.55%	19.27%	27.51%	27.52%	70.90%	9.57%	71.16%	85.77%	61.41%	49.08%	73.54%	89.21%	4.99%	70.50%
	4th	52.14%	28.25%	16.92%	31.42%	32.69%	77.24%	11.73%	66.12%	88.39%	56.34%	55.71%	79.76%	90.83%	2.41%	76.45%
	5th	56.34%	31.07%	11.81%	29.90%	40.07%	74.82%	19.32%	67.30%	91.82%	61.11%	60.60%	80.83%	93.99%	8.08%	73.24%
	Total	56.83%	28.74%	19.80%	26.22%	30.37%	70.97%	11.13%	71.98%	85.36%	61.41%	49.93%	73.81%	89.23%	4.63%	69.96%
Indonesia 2000	Poorest quintile	57.62%	9.57%	28.76%	29.55%	23.92%	84.01%	8.94%	73.11%	90.69%	58.01%	46.30%	85.62%	92.37%	8.13%	82.80%
	2nd	61.97%	12.13%	23.03%	31.11%	31.42%	87.66%	11.41%	72.47%	92.82%	62.32%	52.64%	88.80%	94.19%	7.76%	86.62%
	3rd	54.91%	10.59%	20.24%	31.82%	32.12%	87.78%	13.32%	66.18%	94.34%	55.97%	55.42%	88.97%	95.33%	6.64%	87.54%
	4th	49.93%	9.40%	15.09%	32.41%	36.81%	86.26%	16.19%	59.57%	92.69%	50.94%	58.60%	87.92%	94.26%	7.09%	85.79%
	5th	43.88%	9.30%	5.93%	34.05%	39.27%	81.29%	20.79%	50.20%	92.02%	44.74%	61.79%	83.77%	92.94%	7.20%	80.32%
	Total	53.66%	10.20%	19.33%	31.79%	32.71%	85.40%	14.13%	64.31%	92.51%	54.40%	54.95%	87.02%	93.82%	7.36%	84.62%
Nepal 1996	Poorest quintile	84.01%	75.15%	57.44%	19.93%	15.90%	21.46%	3.15%	98.50%	50.30%	89.22%	33.86%	24.40%	88.35%	1.22%	20.24%
	2nd	87.46%	81.56%	51.33%	19.90%	19.91%	24.67%	2.81%	97.57%	55.75%	93.73%	37.07%	26.51%	85.96%	2.12%	23.22%
	3rd	87.61%	79.62%	46.08%	18.18%	19.81%	26.46%	4.97%	98.49%	57.58%	93.93%	36.00%	30.48%	82.39%	1.49%	25.39%
	4th	88.93%	80.47%	33.79%	21.61%	22.02%	27.23%	8.13%	96.87%	61.32%	94.05%	39.23%	33.07%	81.59%	4.36%	23.51%
	5th	90.86%	79.43%	18.93%	26.52%	23.03%	32.55%	14.24%	93.88%	69.80%	92.78%	43.21%	40.97%	80.45%	8.06%	27.16%
	Total	87.77%	79.24%	41.52%	21.23%	20.13%	26.47%	6.66%	97.06%	58.95%	92.74%	37.87%	31.08%	83.75%	3.45%	23.90%
Pakistan 1991	Poorest quintile	49.72%	76.07%	37.07%	41.84%	36.33%	30.64%	0.55%	85.88%	76.79%	79.78%	66.48%	30.82%	88.17%	6.32%	26.47%
	2nd	60.17%	78.07%	30.70%	42.54%	37.69%	29.06%	2.43%	88.39%	79.74%	82.65%	68.38%	30.23%	85.68%	6.64%	24.62%
	3rd	57.83%	75.39%	24.18%	51.48%	31.25%	32.83%	2.01%	84.13%	83.19%	80.71%	72.49%	34.37%	87.97%	9.24%	25.51%
	4th	64.14%	75.70%	15.41%	50.03%	26.35%	27.92%	3.90%	80.15%	79.46%	78.30%	66.56%	30.25%	83.78%	7.07%	22.43%
	5th	68.43%	75.92%	14.11%	45.32%	25.63%	34.26%	7.56%	82.07%	78.78%	80.34%	62.73%	38.21%	83.21%	9.02%	26.29%
	Total	60.05%	76.23%	24.30%	46.24%	31.45%	30.94%	3.29%	84.12%	79.59%	80.36%	67.33%	32.77%	85.76%	7.66%	25.06%
Pakistan 2001	Poorest quintile	39.24%	57.89%	27.87%	57.81%	17.74%	21.40%	7.68%	72.83%	76.11%	64.39%	66.26%	26.92%	86.48%	11.66%	11.68%
	2nd	44.90%	62.54%	24.52%	54.10%	17.97%	30.23%	12.33%	74.63%	79.75%	68.20%	62.96%	38.17%	87.19%	13.55%	19.62%
	3rd	49.97%	65.10%	18.30%	47.29%	16.36%	33.17%	15.13%	74.77%	77.31%	70.60%	55.87%	42.72%	84.56%	14.34%	22.33%
	4th	51.54%	67.69%	16.32%	45.40%	20.15%	34.19%	18.90%	75.39%	79.65%	72.54%	56.93%	45.96%	83.93%	15.81%	21.75%
	5th	52.13%	68.25%	12.99%	37.77%	16.63%	38.26%	24.59%	75.01%	77.50%	72.93%	47.34%	52.23%	81.78%	16.91%	27.34%
	Total	47.55%	64.29%	20.00%	48.48%	17.77%	31.45%	15.72%	74.53%	76.06%	69.73%	57.87%	41.20%	84.79%	14.45%	20.54%
Vietnam 1992	Poorest quintile	92.77%	89.83%	11.65%	10.71%	27.71%	38.42%	4.28%	97.19%	83.45%	96.12%	35.88%	40.16%	69.34%	17.94%	26.24%
	2nd	93.57%	93.03%	16.49%	17.02%	34.32%	34.99%	4.16%	97.99%	67.16%	97.32%	45.84%	36.86%	75.07%	19.71%	18.63%
	3rd	94.38%	93.57%	16.33%	22.76%	38.29%	34.81%	3.75%	97.72%	70.95%	96.92%	53.28%	36.95%	76.17%	22.62%	15.66%
	4th	92.76%	93.57%	17.83%	28.42%	50.00%	35.79%	4.02%	97.86%	78.55%	97.05%	66.49%	38.07%	82.31%	24.66%	17.02%
	5th	86.86%	90.08%	13.81%	30.43%	54.29%	33.65%	6.97%	94.10%	80.29%	93.30%	69.30%	38.61%	83.78%	16.89%	21.72%
	Total	92.07%	92.02%	15.22%	21.86%	40.92%	35.53%	4.64%	96.97%	72.08%	96.14%	54.15%	38.13%	77.33%	20.36%	19.86%
Vietnam 1998	Poorest quintile	98.55%	92.67%	24.86%	27.98%	29.52%	31.47%	16.14%	99.50%	72.59%	98.62%	49.65%	42.85%	80.84%	18.80%	17.21%
	2nd	98.57%	94.31%	24.13%	31.17%	31.96%	33.46%	19.58%	99.70%	75.11%	99.44%	52.87%	47.05%	84.10%	18.72%	18.79%
	3rd	97.49%	91.72%	21.09%	32.97%	40.48%	34.00%	22.14%	98.92%	80.91%	98.48%	60.90%	48.25%	87.48%	18.83%	20.07%
	4th	97.86%	89.72%	17.08%	35.30%	40.22%	38.38%	21.36%	99.37%	82.78%	98.75%	62.27%	50.31%	87.35%	22.28%	22.57%
	5th	96.40%	84.31%	12.97%	30.94%	45.74%	44.23%	16.62%	97.57%	85.67%	97.22%	64.56%	52.43%	88.26%	19.06%	30.65%
	Total	97.77%	90.55%	20.03%	31.67%	37.58%	36.31%	19.17%	99.01%	79.41%	98.50%	58.05%	48.17%	85.60%	19.54%	21.85%

Appendix IV

Table AIV.1. FLM typology of household diversification and specialization

		Country Typology- All Rural Households						
		F	Fm	Fs	L	M	D	F+L+M+D
Eastern Europe	Albania 2005	19.3%	8.9%	10.4%	17.1%	8.8%	54.7%	100.0%
	Bulgaria 2001	3.3%	1.4%	1.9%	13.7%	45.6%	37.4%	100.0%
	Ghana 1998	50.1%	9.6%	40.5%	24.1%	3.4%	22.4%	100.0%
Africa	Madagascar 1993	59.4%	36.7%	22.7%	9.5%	1.4%	29.6%	100.0%
	Malawi 2004	33.3%	20.1%	13.2%	24.4%	3.3%	39.0%	100.0%
	Nigeria 2004	73.3%	12.3%	61.0%	16.0%	1.0%	9.7%	100.0%
	Ecuador 1995	25.6%	13.2%	12.3%	43.0%	2.3%	29.2%	100.0%
Latin America	Guatemala 2000	10.9%	4.9%	6.0%	40.5%	5.9%	42.7%	100.0%
	Nicaragua 2001	18.9%	15.0%	3.9%	48.2%	0.9%	32.0%	100.0%
	Panama 2003	14.3%	3.1%	11.2%	45.7%	6.6%	33.3%	100.0%
	Bangladesh 2000	6.3%	4.2%	2.1%	40.4%	5.4%	47.9%	100.0%
	Indonesia 2000	15.7%			36.5%	11.5%	36.3%	100.0%
Asia	Nepal 1996	25.2%	19.4%	5.8%	33.1%	5.1%	36.6%	100.0%
	Pakistan 2001	24.7%	23.3%	1.4%	34.8%	8.1%	32.3%	100.0%
	Vietnam 1998	38.0%	34.6%	3.4%	21.0%	1.2%	39.8%	100.0%

F- farm oriented household (more than 75% of total income from farm production)

Fm- farm, market-oriented household (more than 50% of agricultural production sold on market)

Fs- farm, subsistence household (<= 50% of agricultural production sold on market)

L- labour-oriented household (more than 75% of total income from wage or nonfarm self employment)

M- migration/transfers-oriented household (more than 75% of total income from transfers/other non-labor sources)

D- diversified household

Table AIV.2. Value of marketed and total agricultural production, by FLM typology

	Percentage of total value of marketed agricultural production					Percentage of total value of agricultural production				
	Fm	Fs	Labor	Migration	Diversified	Fm	Fs	Labor	Migration	Diversified
Africa										
Ghana 1998	38.5	32.3	7.6	0.4	21.2	17.7	53.4	6.9	0.2	21.7
Madagascar 1993	54.4	20.9	3.1	0.1	21.5	36.4	34.9	11.2	0.1	17.4
Malawi 2004	58.3	8.8	4.5	0.2	28.2	9.3	49.9	8.0	0.3	32.4
Nigeria 2004	32.9	54.0	4.1	0.0	9.1	8.3	80.0	2.9	0.0	8.8
Asia										
Bangladesh 2000	15.6	3.2	16.8	2.9	61.5	12.0	4.7	17.8	3.4	62.1
Indonesia 2000*	41.2	.	10.1	1.8	47.0	41.2	.	10.1	1.8	47.0
Nepal 1996	45.6	1.6	8.9	1.4	42.6	39.8	3.9	10.5	2.0	43.9
Pakistan 2001	69.4	0.1	2.0	0.3	28.2	64.2	0.9	3.3	0.7	30.9
Vietnam 1998	48.3	0.8	13.7	0.2	37.0	47.1	1.5	13.4	0.2	37.8
Eastern Europe										
Albania 2005	21.9	9.9	6.7	1.8	59.7	15.2	13.0	8.3	2.2	61.3
Bulgaria 2001	3.6	0.4	5.1	59.5	31.4	3.2	2.0	5.7	49.4	39.6
Latin America										
Ecuador 1995	41.0	5.5	13.7	0.7	39.1	31.2	12.6	15.6	0.6	39.9
Guatemala 2000	23.8	6.5	13.6	1.0	55.1	14.6	11.3	16.1	1.2	56.9
Nicaragua 2001	52.1	1.9	16.1	0.1	29.7	46.6	4.3	18.0	0.1	31.0
Panama 2003	27.5	6.8	27.8	0.7	37.1	14.5	16.7	25.6	1.3	41.9

* Fm column refers to the overall F-specialized category, as the survey does not allow for market and subsistence oriented households to be identified.

Appendix V

Berger Parker Index

The Berger-Parker index comes from biodiversity analyses in which the index estimates relative abundance (or inverse dominance, corresponding with the definition of the index) of an individual farmer unit with respect to plant population, crop variety and other related topics. The index (D) is defined as $1 / \max(\alpha_i)$, $D \geq 1$, where $\max(\alpha_i)$, in biodiversity analyses, is the maximum area share planted to any single farmer managed unit of diversity.¹⁸ The index can be applied to other analyses, in which case the definition of α_i is adjusted accordingly and the range of the index may be subject to an upper bound. For example, when analyzing diversity of income activities among households, α_i is identified as the share of total income earned from activity i .

The range of the index becomes $[1 \leq D \leq N]$ where N is the maximum possible number of income activities a household can undertake. If seven income activities are identified, as in the case of this study, the index would range from 1 through 7, a value of 1 signifying no diversity in income sources as all income would be earned from one source, and 7 signifying perfect diversity, as an equal share of total income would be earned from each possible income source. A higher index indicates greater relative diversity, whether it be in income sources, or another subject of analysis.

Although this index gives insight into a household's relative income diversity, it does not take into consideration the actual shares of income earned from different income sources, a factor that would add depth in understanding a household's diversification of income. The Shannon index, another measure of diversity, does factor household income shares into its construction; however, the results of the Shannon index are distorted in a situation where there may be income losses (negative shares)¹⁹, making the Berger-Parker index a more suitable choice for an income analysis.

Table AV.1 summarizes the range of possibilities for the Berger-Parker index for the RIGA analysis and for diversity analyses in general, and Table AV.2 presents the results for the RIGA data.

¹⁸ See Smale (2006).

¹⁹ The Shannon index is defined for a range with a lower bound of zero; since the index is constructed taking the logarithm of each income source ($D = -1 * \sum(Y_i/Y_{total} * \ln(Y_i/Y_{total}))$), negative income shares for a given income source create a negative index, complicating the interpretation of the index.

Table AV.1. Berger Parker Index

	Maximum share	Berger-Parker Index	
	max(H)	N	
	
	0.05	20.00	
	0.08	12.50	
	0.10	10.00	
<i>General Diversity Analyses</i>	0.14	7.00	<i>RIGA Income Analysis</i>
	0.20	5.00	
	0.30	3.33	
	0.40	2.50	
	0.50	2.00	
	0.60	1.67	
	0.70	1.43	
	0.80	1.25	
	0.90	1.11	
	1.00	1.00	

Table AV.2. Berger-Parker Index by Expenditure Quintiles

	<i>Eastern Europe</i>				<i>Africa</i>				
Quintile	Albania 2002	Albania 2005	Bulgaria 1995	Bulgaria 2001	Ghana 1992	Ghana 1998	Madagascar 1993	Malawi 2004	Nigeria 2004
Poorest quintile	1.649	1.666	1.539	1.239	1.168	1.217	1.440	1.455	1.092
2nd	1.644	1.671	1.660	1.393	1.194	1.229	1.518	1.457	1.098
3rd	1.601	1.709	1.807	1.407	1.213	1.241	1.458	1.424	1.115
4th	1.527	1.648	1.884	1.426	1.207	1.251	1.414	1.390	1.134
5th	1.558	1.688	1.900	1.331	1.204	1.240	1.376	1.334	1.145
Total	1.596	1.676	1.761	1.360	1.197	1.236	1.441	1.412	1.116

	<i>Latin America</i>					
Quintile	Ecuador 1995	Ecuador 1998	Guatemala 2000	Nicaragua 2001	Panama 1997	Panama 2003
Poorest quintile	1.406	1.434	1.592	1.434	1.479	1.503
2nd	1.511	1.394	1.632	1.459	1.447	1.503
3rd	1.483	1.383	1.532	1.464	1.356	1.456
4th	1.480	1.431	1.447	1.463	1.341	1.396
5th	1.396	1.292	1.358	1.388	1.299	1.281
Total	1.455	1.387	1.512	1.442	1.384	1.428

	<i>Asia</i>							
Quintile	Bangladesh 2000	Indonesia 1993	Indonesia 2000	Nepal 1996	Pakistan 1991	Pakistan 2001	Vietnam 1992	Vietnam 1998
Poorest quintile	1.426	1.180	1.368	1.441	1.183	1.346	1.382	1.757
2nd	1.470	1.228	1.401	1.453	1.221	1.425	1.388	1.752
3rd	1.514	1.204	1.387	1.409	1.230	1.418	1.444	1.726
4th	1.501	1.214	1.369	1.419	1.279	1.456	1.437	1.720
5th	1.505	1.239	1.334	1.389	1.282	1.466	1.412	1.582
Total	1.483	1.213	1.372	1.422	1.239	1.422	1.413	1.708

Appendix VI

Table AVI.1. Diversification and specialization in rural income generating strategies

	Quintile	Diverse Income Portfolio	Specialization					(1) + (2)
			(3)	(4)	(5)	(6)	(7)	
			Ag Wage	Nonag wge	Self Emp	Transfers	Other	
Albania 2002	Q1	49.9%	1.7%	4.6%	2.2%	6.0%	0.0%	35.6%
	Q2	50.0%	0.9%	5.6%	0.3%	5.7%	0.0%	37.6%
	Q3	47.9%	0.9%	8.7%	2.3%	7.9%	0.8%	31.4%
	Q4	45.7%	0.9%	8.8%	5.6%	13.0%	0.1%	25.9%
	Q5	51.1%	0.8%	4.6%	3.8%	22.1%	0.0%	17.6%
	Total	48.9%	1.1%	6.5%	2.8%	10.9%	0.2%	29.6%
Albania 2005	Q1	50.5%	1.6%	6.7%	1.2%	6.9%	1.4%	31.7%
	Q2	51.7%	1.7%	12.0%	4.4%	7.2%	0.0%	22.9%
	Q3	56.3%	1.5%	10.8%	4.0%	7.8%	0.1%	19.5%
	Q4	60.1%	0.4%	8.4%	7.9%	10.2%	0.3%	12.7%
	Q5	60.7%	0.2%	9.9%	7.4%	12.0%	0.0%	9.8%
	Total	55.9%	1.1%	9.6%	5.0%	8.8%	0.4%	19.3%
Bulgaria 1995	Q1	66.5%	0.0%	0.6%	0.6%	24.4%	0.0%	7.9%
	Q2	77.3%	3.1%	3.1%	0.0%	4.9%	0.6%	11.0%
	Q3	75.0%	1.8%	3.7%	0.0%	4.9%	0.0%	14.6%
	Q4	74.2%	4.9%	6.1%	0.6%	1.8%	0.0%	12.3%
	Q5	73.6%	1.2%	9.2%	3.7%	0.0%	0.0%	12.3%
	Total	73.3%	2.2%	4.5%	1.0%	7.2%	0.1%	11.6%
Bulgaria 2001	Q1	50.3%	3.0%	4.2%	0.6%	24.8%	0.0%	17.0%
	Q2	62.4%	2.4%	4.8%	0.6%	19.4%	0.0%	10.3%
	Q3	70.7%	1.8%	6.1%	0.0%	11.6%	0.0%	9.8%
	Q4	78.2%	1.2%	4.8%	0.0%	6.1%	0.0%	9.7%
	Q5	75.0%	2.4%	6.7%	3.0%	4.3%	0.6%	7.9%
	Total	67.3%	2.2%	5.3%	0.9%	13.2%	0.1%	10.9%
Ghana 1992	Q1	15.3%	0.5%	0.7%	4.0%	0.9%	0.0%	78.6%
	Q2	21.0%	0.2%	2.9%	9.1%	2.8%	0.0%	64.0%
	Q3	23.5%	0.3%	3.6%	9.3%	2.6%	0.0%	60.6%
	Q4	24.3%	1.9%	4.8%	12.8%	3.3%	0.0%	52.9%
	Q5	24.9%	1.7%	10.2%	17.3%	4.0%	0.0%	42.0%
	Total	21.8%	0.9%	4.5%	10.5%	2.7%	0.0%	59.6%
Ghana 1998	Q1	17.0%	0.3%	0.9%	8.3%	3.0%	0.2%	70.3%
	Q2	22.8%	0.4%	5.0%	16.3%	2.3%	0.2%	53.1%
	Q3	23.0%	0.6%	5.1%	13.2%	3.7%	0.0%	54.3%
	Q4	28.1%	0.7%	8.8%	19.1%	3.6%	0.0%	39.6%
	Q5	29.0%	1.2%	11.0%	20.4%	4.6%	0.7%	33.2%
	Total	24.0%	0.6%	6.2%	15.4%	3.4%	0.2%	50.1%
Madagascar 1993	Q1	36.4%	2.4%	1.2%	5.4%	2.3%	1.1%	51.3%
	Q2	30.2%	1.2%	0.6%	2.8%	0.3%	0.0%	65.0%
	Q3	32.3%	1.3%	3.0%	2.2%	2.0%	0.2%	59.0%
	Q4	29.4%	1.4%	3.5%	3.0%	0.9%	0.6%	61.1%
	Q5	24.8%	0.3%	5.9%	6.5%	1.7%	0.0%	60.8%
	Total	30.6%	1.3%	2.8%	4.0%	1.4%	0.4%	59.4%
Malawi 2004	Q1	48.5%	11.3%	3.9%	5.2%	3.1%	0.0%	28.0%
	Q2	47.2%	8.3%	4.1%	4.3%	3.4%	0.0%	32.6%
	Q3	42.9%	5.3%	5.5%	7.1%	3.2%	0.0%	36.1%
	Q4	40.4%	5.2%	7.3%	7.3%	3.1%	0.1%	36.6%
	Q5	35.8%	5.7%	11.8%	9.6%	3.8%	0.2%	33.1%
	Total	43.0%	7.1%	6.5%	6.7%	3.3%	0.1%	33.3%
Nigeria 2004	Q1	9.9%	1.5%	2.1%	3.1%	0.2%	0.1%	83.0%
	Q2	12.1%	0.8%	3.3%	5.6%	0.4%	0.1%	77.6%
	Q3	14.7%	0.9%	5.3%	7.2%	0.8%	0.2%	70.9%
	Q4	16.9%	1.2%	7.1%	8.9%	1.0%	0.2%	64.6%
	Q5	20.1%	0.5%	9.7%	13.9%	2.1%	0.4%	53.3%
	Total	14.7%	1.0%	5.5%	7.8%	0.9%	0.2%	69.9%

		Specialization						
		(3)	(4)	(5)	(6)	(7)	(1) + (2)	
Quintile	Diverse Income	Ag Wage	Nonag wge	Self Emp	Transfers	Other	Farm	
	Portfolio							
Ecuador 1995	Q1	33.9%	21.4%	10.1%	5.6%	2.1%	0.2%	26.8%
	Q2	42.2%	16.1%	9.3%	5.3%	1.3%	0.2%	25.6%
	Q3	42.2%	12.5%	8.7%	7.2%	2.4%	0.9%	26.1%
	Q4	43.1%	7.9%	10.8%	9.2%	1.8%	0.7%	26.5%
	Q5	36.1%	7.7%	12.1%	16.8%	3.7%	1.1%	22.4%
	Total	39.5%	13.1%	10.2%	8.8%	2.3%	0.6%	25.5%
Ecuador 1998	Q1	36.1%	17.0%	6.6%	5.0%	1.2%	0.0%	34.1%
	Q2	40.1%	15.6%	9.1%	6.5%	2.2%	0.0%	26.6%
	Q3	34.6%	10.4%	12.8%	11.6%	1.4%	0.0%	29.2%
	Q4	36.1%	9.7%	14.2%	15.1%	2.8%	0.4%	21.7%
	Q5	29.2%	6.2%	19.6%	24.1%	2.6%	0.7%	17.7%
	Total	35.2%	11.8%	12.4%	12.4%	2.0%	0.2%	25.9%
Guatemala 2000	Q1	60.4%	16.6%	3.9%	2.6%	3.2%	0.0%	13.3%
	Q2	62.2%	11.6%	6.7%	4.4%	3.8%	0.0%	11.3%
	Q3	55.1%	10.4%	13.3%	3.7%	6.5%	0.1%	10.8%
	Q4	45.5%	9.6%	20.6%	7.2%	6.9%	0.0%	10.3%
	Q5	39.2%	6.0%	23.4%	12.5%	9.3%	0.9%	8.7%
	Total	52.5%	10.8%	13.6%	6.1%	5.9%	0.2%	10.9%
Nicaragua 2001	Q1	41.6%	28.3%	7.3%	2.7%	1.2%	0.0%	18.9%
	Q2	42.6%	20.5%	11.2%	4.6%	0.2%	0.3%	20.4%
	Q3	37.7%	12.1%	19.4%	4.9%	0.9%	0.8%	24.3%
	Q4	43.0%	8.3%	21.2%	8.2%	0.6%	0.2%	18.4%
	Q5	43.3%	5.7%	18.4%	16.9%	1.7%	1.2%	12.7%
	Total	41.7%	15.0%	15.5%	7.5%	0.9%	0.5%	18.9%
Panama 1997	Q1	47.4%	8.4%	9.2%	2.3%	9.5%	0.0%	23.1%
	Q2	42.0%	12.2%	19.5%	2.3%	6.4%	0.2%	17.4%
	Q3	33.3%	10.8%	26.9%	3.0%	6.4%	0.9%	18.8%
	Q4	33.6%	9.4%	30.4%	6.6%	7.0%	0.4%	12.6%
	Q5	32.8%	5.2%	32.4%	6.4%	11.4%	1.3%	10.5%
	Total	37.8%	9.2%	23.7%	4.1%	8.1%	0.6%	16.5%
Panama 2003	Q1	46.6%	14.2%	4.5%	4.1%	2.6%	0.0%	28.0%
	Q2	49.0%	12.9%	13.9%	4.1%	5.6%	0.0%	14.6%
	Q3	43.9%	6.6%	23.4%	6.3%	6.7%	0.2%	12.9%
	Q4	39.1%	8.0%	26.4%	8.0%	9.3%	0.0%	9.2%
	Q5	34.4%	4.9%	31.2%	13.1%	8.9%	0.7%	6.8%
	Total	42.6%	9.3%	19.9%	7.1%	6.6%	0.2%	14.3%

		Specialization						(1) + (2)
		(3)	(4)	(5)	(6)	(7)	(1) + (2)	
Quintile	Diverse Income	Ag Wage	Nonag wge	Self Emp	Transfers	Other	Farm	
	Portfolio							
Bangladesh 2000	Q1	49.8%	15.1%	7.8%	3.2%	0.3%	1.5%	22.2%
	Q2	48.7%	5.5%	4.6%	8.2%	1.7%	3.3%	27.9%
	Q3	52.2%	3.4%	6.9%	5.7%	1.0%	2.7%	28.1%
	Q4	49.5%	2.4%	4.1%	6.8%	4.3%	3.5%	29.4%
	Q5	55.3%	0.0%	4.3%	10.4%	5.1%	3.4%	21.4%
	Total	51.1%	5.3%	5.5%	6.9%	2.5%	2.9%	25.8%
Indonesia 1993	Q1	21.5%	9.6%	7.8%	10.1%	10.0%	0.8%	40.2%
	Q2	24.7%	5.6%	4.9%	13.3%	11.1%	1.0%	39.4%
	Q3	22.4%	4.5%	10.0%	13.1%	12.2%	0.4%	37.5%
	Q4	22.6%	4.8%	10.4%	17.8%	10.6%	1.5%	32.4%
	Q5	26.6%	2.9%	7.4%	19.0%	12.9%	3.1%	28.1%
	Total	23.6%	5.5%	8.1%	14.6%	11.4%	1.4%	35.5%
Indonesia 2000	Q1	41.5%	9.4%	11.7%	6.6%	9.4%	0.6%	20.8%
	Q2	42.7%	6.0%	12.9%	9.4%	10.2%	0.3%	18.5%
	Q3	41.7%	5.4%	13.8%	10.3%	10.4%	1.2%	17.1%
	Q4	42.5%	5.3%	13.8%	12.0%	11.9%	1.5%	13.0%
	Q5	39.2%	3.3%	17.4%	13.9%	15.4%	1.7%	9.2%
	Total	41.5%	5.9%	13.9%	10.4%	11.5%	1.1%	15.7%
Nepal 1996	Q1	42.7%	25.9%	6.6%	2.6%	3.5%	0.0%	18.7%
	Q2	43.3%	18.1%	7.3%	4.7%	3.4%	0.0%	23.2%
	Q3	38.5%	15.3%	7.3%	5.3%	5.1%	0.6%	27.9%
	Q4	40.5%	9.5%	8.7%	7.0%	4.9%	0.2%	29.2%
	Q5	38.8%	5.4%	9.3%	10.2%	8.7%	0.4%	27.2%
	Total	40.8%	14.8%	7.8%	6.0%	5.1%	0.2%	25.2%
Pakistan 1991	Q1	19.3%	8.1%	22.2%	17.1%	4.2%	0.0%	29.1%
	Q2	19.4%	3.2%	22.6%	18.1%	0.8%	0.0%	35.8%
	Q3	18.5%	2.3%	23.1%	14.5%	0.7%	0.4%	40.5%
	Q4	22.0%	1.3%	23.1%	13.5%	0.0%	0.7%	39.3%
	Q5	31.2%	1.4%	16.9%	10.4%	1.1%	1.6%	37.5%
	Total	22.1%	3.3%	21.6%	14.7%	1.4%	0.5%	36.4%
Pakistan 2001	Q1	20.9%	6.4%	20.2%	18.0%	0.2%	0.0%	34.4%
	Q2	25.2%	3.8%	16.4%	17.6%	0.7%	0.0%	36.4%
	Q3	20.8%	1.8%	23.5%	15.8%	1.6%	0.7%	35.9%
	Q4	23.1%	1.5%	19.3%	12.0%	2.9%	0.2%	41.1%
	Q5	23.3%	2.2%	21.3%	11.3%	1.0%	1.3%	39.7%
	Total	22.6%	3.1%	20.1%	14.9%	1.3%	0.4%	37.5%
Vietnam 1992	Q1	22.8%	2.9%	0.9%	8.0%	3.2%	0.1%	62.0%
	Q2	23.3%	3.6%	1.6%	11.8%	1.6%	0.0%	58.0%
	Q3	22.9%	2.0%	2.1%	12.3%	0.7%	0.0%	60.0%
	Q4	30.0%	2.5%	2.0%	17.7%	0.4%	0.0%	47.3%
	Q5	30.6%	1.2%	2.4%	23.9%	1.3%	0.0%	40.6%
	Total	25.9%	2.5%	1.8%	14.7%	1.4%	0.0%	53.6%
Vietnam 1998	Q1	40.9%	2.8%	0.9%	4.6%	0.4%	0.1%	50.3%
	Q2	43.7%	3.9%	1.6%	7.1%	0.4%	0.0%	43.3%
	Q3	44.6%	1.8%	2.3%	13.0%	0.7%	0.0%	37.6%
	Q4	47.6%	0.9%	1.9%	14.6%	2.0%	0.0%	32.9%
	Q5	41.5%	1.1%	2.6%	24.5%	2.7%	0.2%	27.5%
	Total	43.7%	2.1%	1.8%	12.8%	1.2%	0.1%	38.3%

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