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POVERTY AND THE INFORMAL SECTOR

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MEASUREMENT ISSUES

Note by the secretariat

SUMMARY

This report identifies major conceptual and measurement issues associated with linking informal employment to poverty outcomes and suggests ways to address these challenges. The issues pertain to: (1) data gaps in measuring informal employment, employment in the informal sector and poverty; (2) integrating person-level and household-level analysis; and (3) linking data on employment characteristics of individuals and household income.

The report stresses the importance of addressing the data gaps. It suggests a basic data framework for analysing poverty risks of informal sector workers based on some empirical evidence generated from the few datasets that are available. To link information from different sources of data, the report discusses two possible options—a single complete survey and the use of statistical matching procedures.

The Committee is invited to discuss the points raised in section V of the document.

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I. INTRODUCTION

1. Employment is the primary channel through which economic growth reduces poverty. When employment opportunities improve as the economy expands, in general the benefits of growth are broadly shared among the population. The impressive results obtained in Asia and the Pacific in terms of employment growth have contributed to a sharp reduction of income poverty. Many countries in the region that are trying to develop feasible strategies for achieving their development objectives – as reflected in their UNDAF and/or PRSP documents – have put employment promotion as one of prominent features of their policy agenda. However, access to employment is not sufficient. The quality of employment also matters.

2. According to ILO,¹ more than 1 billion of over 1.71 billion workers in Asia and the Pacific² are currently unable to lift themselves and their families above the US\$2-a-day poverty line. Among these working poor,³ 336 million live with their families on less than \$1-a-day. The highest proportion of working poor is to be found in South Asia, where 55.1 per cent of persons employed (or about 202 million people) live in absolute poverty; these proportions are lower, albeit still significant, in East Asia (24.7 per cent of total employment, 104.0 million) and in South-East Asia (11.4 per cent or 29.7 million).

3. In some recent leading UN documents⁴ a clear association is made between working poor and employment in the informal sector. The evidence in support of this conclusion is rather weak, being indirectly derived largely from the existence of wide income differentials between people employed in the formal and informal sector. It is certainly true that informal employment is, on average, precarious, low-paid, and risky. Yet, clear answers to the following questions have not been provided so far: how many people are working poor and how many of them are employed in the informal sector? How large are the poverty rates of informal sector workers and how do they compare with the ones of formal sector workers and the rest of the population?

4. Informal sector workers are a very heterogeneous group with their income differentials higher than formal sector workers. They include street vendors, rickshaw pullers, home-based garment workers, casual day labourers, temporary data processors, and some professional occupations.

¹ International Labour Organization (2006). *Labour and Social Trends in Asia and the Pacific 2006: Progress Towards Decent Work*. ILO Regional Office for Asia and the Pacific, Bangkok.

² CIS countries in Central Asia are excluded. See ILO (2006).

³ Conceptually, “working poor” refers to an employed person living in a household whose total income is below the poverty line. These poverty rates were estimated, however, by multiplying the poverty rate of the population in a country by the labour force population. This definition assumes that (1) poverty rate of working age poor is equal to that of the population as a whole; (2) labour force participation rate of the poor is equal to that of the population as a whole; and (3) all poor individuals in the labour force are counted as working poor. For details, refer to Kapsos, Steven (2004). “Estimating growth requirements for reducing working poverty: can the world halve working poverty by 2015?” Employment Strategy Papers, No. 2004/14, Employment Strategy Department, ILO.

⁴ See, for example, United Nations (2005). *The Inequality Predicament: Report on the World Situation 2005*. United Nations, New York; and ILO (2006).

Informal sector jobs may also be secondary jobs of employees in the formal sector. Their employment status varies; there are self-employed, including owners of enterprises, as well as wage workers. In this respect, little is known about the social and demographic characteristics of the (subset of) informal sector workers and their households living in poverty.

5. Understanding the links between informality and poverty is critical for formulating suitable policy options targeted at poverty reduction. Nevertheless, data and information sources are still largely inadequate for achieving this objective. This report seeks to initiate a discussion on conceptual and measurement issues that need to be further addressed in order to improve data and methods for assessing the poverty risks of workers in the informal sector and suggests ways in which this may be done.

II. DEFINITIONS OF INFORMAL SECTOR, INFORMAL EMPLOYMENT AND POVERTY

6. Over the last two decades, international and national statistical systems (NSSs) have developed definitions and methods for improving data availability on employment in the informal sector and informal employment, on one side, and on poverty, on the other side. However, very little work has been done on improving data and analytical requirements for studying linkages between poverty and informal employment.

A. Informal employment and employment in the informal sector

7. Guidelines for the statistical definition and measurement of employment in the informal sector were adopted by the 15th International Conference of Labour Statisticians (ICLS) in 1993.⁵ According to these guidelines, employment in the informal sector comprises all persons who, during a given reference period, were employed in at least one informal sector enterprise.

8. Informal sector enterprises are household unincorporated production units that sell or barter at least some of the goods and services that they produce. In addition to the criteria of market production, lack of an independent legal status (informal sector units are not constituted as separate legal entities independently of their owners) and absence of record-keeping and accounting (for informal sector units there is no separation between the production activities of the enterprise and the other activities of its owners), the following additional operational criteria can be adopted to identify informal sector units, depending on national circumstances: (1) non-registration of the enterprise and/or; (2) non-registration of the employees and/or; (3) size of employment – typically only firms with fewer than 5 or 10 employees are included.

⁵ Resolution concerning statistics of employment in the informal sector, adopted by the Fifteenth International Conference of Labour Statisticians (January 1993); in: Current International Recommendations on Labour Statistics, 2000 Edition; ILO, Geneva, 2000.

9. These guidelines, being rather flexible, have been operationalized in different ways by national statistical offices of developing countries, producing data that lacks international comparability. The absence of a clear standard definition has contributed to discourage many developing countries in undertaking regular surveys aimed at collecting data on employment and output of the informal sector. In most countries, data on the informal sector are collected on an ad hoc basis; thus time series data on informal sector employment are scarce and even less information is available on the contribution of the informal sector to economic growth.

10. To address the problem of international comparability, the international Expert Group on Informal Sector Statistics (Delhi Group) formulated a set of recommendations for the harmonisation of national definitions of the informal sector on the basis of the framework set by the ICLS resolution. The harmonised definition leads to a rather narrowly defined subset of the informal sector, for which countries should be able to make internationally comparable data available; that is – private unincorporated enterprises (excluding quasi-corporations), which produce at least some of their goods or services for sale or barter, have less than five paid employees, are not registered, and are engaged in non-agricultural activities (including professional or technical activities). Households employing paid domestic employees are excluded. However, very few countries are able to provide statistics on informal sector employment even with this definition.

11. Acknowledging that an enterprise-based definition of the informal sector is not able to capture all forms of unprotected employment, the 17th ICLS in 2003 endorsed a definition of informal employment that complements the definition of informal sector adopted by the 15th ICLS. According to this definition,⁶ informal employment comprises: (a) workers in the informal sector; (b) workers in informal jobs in formal sector enterprises; and (c) paid domestic workers in households.

12. The informal status of a job is typically determined by whether the worker in that job has access to a defined set of social protections provisions (e.g., paid leave, an employer-provided pension, and/or contributions to a social security fund). Alternatively, jobs may be determined to be informal or formal based on the existence of a written, or enforceable, contract.

13. The 17th ICLS also endorsed a conceptual framework⁷ that disaggregates total employment on the basis of the type of production unit and type of job that is useful in understanding the links between informal sector employment (enterprise-based concept) and informal employment (job-based concept).

⁶ “Guidelines concerning a statistical definition of informal employment” 17th ICLS, November-December 2003 <http://www.ilo.org/public/english/bureau/stat/download/guidelines/defempl.pdf>

⁷ Hussmans, Ralf (2004). Measuring the informal economy: From employment in the informal sector to informal employment. Working Paper No. 53. Policy Integration Department, Bureau of Statistics, International Labour Office. Geneva.

14. The definition of informal employment endorsed by the 17th ICLS allows for different implementation practices, being meant to be applied to different institutional settings and different levels of development of the employment and social protection legislation across countries. “The concept of informal employment is considered to be relevant not only to developing and transition countries, but also to developed countries, for many of which the concept of the informal sector is of limited relevance”.⁸ The international comparability of statistics obtained using different implementation practices is, on the other hand, rather controversial.

15. The concept of informality of jobs in formal sector enterprise mixes dimensions that are empirically overlapping, but that are intrinsically heterogeneous in a logical and policy perspective. On one side, we can have workers employed with flexible working arrangements (which for some may mean job instability, but for others self-determined time management), while on the other side we can have workers non-registered, and for whom social contributions are not paid. Analytically these dimensions have different causes. Politically, they have different implications.

16. Assembling workers in informal jobs in formal sector enterprises with informal sector workers adds complexity to an already largely diversified aggregate. In fact informal sector is already an “umbrella concept” that pulls together different types of enterprises (own account workers operating either alone or with the help of unpaid family members and micro-entrepreneurs engaging a few paid workers), formed on the basis of different economic incentives (as a survival strategy, as a way of avoiding taxes or employment protection legislation, as a stage in the development of the firm, etc.) and operating different kinds of activities (both traditional and modern).

B. Defining poverty

17. Poverty is deprivation in “well-being”.⁹ There are different views of well-being and, therefore, definitions of poverty. One view sees poverty largely in monetary terms; that is, the poor are those who do not have enough income or consumption to put them above some adequate minimum threshold. A narrower view defines well-being as having command over specific types of consumption. Thus, an individual may be said to be “house poor” or “food poor” or “health poor”. A broader view looks at an individual’s “capability” to function in society. The poor lack key capabilities, and may have inadequate income or education, or be in poor health, or feel powerless, or lack political freedoms.

18. This report focuses on measurements of monetary poverty; that is, poverty as a lack of money – measured either as low income or as inadequate expenditures. Current statistical methodologies for measuring income/consumption poverty classifies a household as poor if per capita

⁸ See [8]

⁹ World Bank Institute (2005) Introduction to Poverty Analysis. <http://siteresources.worldbank.org/PGLP/Resources/PovertyManual.pdf>

income or consumption expenditure (derived from total household income/consumption), is below a specified poverty line. An individual is then classified as poor if the household to which he or she belongs is poor.

19. Construction of absolute poverty lines using the cost-of-basic needs (CBN) approach has gained highest acceptance among developing countries. To set this line, several decisions need to be made – whether to use income or expenditure as the indicator of well-being; setting the minimum acceptable energy requirement; choosing and pricing the corresponding food basket for this energy requirement; whether or not to adjust for household composition and size such as use of adult equivalents and factors for economies of scale; and how to cost the non-food component. Thus, there are many variations in the methods used by countries to construct poverty lines.

20. Valid comparisons of poverty rates between one country and another can only be made if the same absolute poverty line is used in both countries. When countries determine their own absolute poverty lines, such as by applying the cost-of-basic needs approach, they reflect their own circumstances and development goals. With the wide variations in the resulting methods used, poverty rates computed from these are not comparable.

21. In the assessment of progress towards the achievement of the MDG goal to eradicate extreme poverty, globally comparable values of the number of poor and poverty rate of countries are needed. These indicators are also useful to international donor agencies in determining where to channel resources. The \$1/day and \$2/day per capita poverty line are absolute poverty lines that have been set by the World Bank and are being used by the United Nations for these purposes.

22. The debate around the suitability of the \$1/day poverty line for measuring poverty is well documented and alternative poverty lines for achieving comparability have been suggested.¹⁰ Work toward the harmonization of various approaches by seeking methodological consensus across countries is also being undertaken.¹¹

III. MEASUREMENT CHALLENGES

23. Numerous analytical and measurement challenges exist in linking employment in the informal sector to poverty outcomes. We examine three broad issues in this paper: (a) data gaps in statistics on informal sector employment/informal employment and poverty; (b) integrating person-level and household-level analyses, and (c) linking data on informal sector employment and poverty.

¹⁰ Reddy and Pogge (2002), Ravallion (2002), and Deaton (2001).

¹¹ Forthcoming UN Handbook on xxxxx. Refer to <http://unstats.un.org/unsd/methods/poverty/edocuments.htm>

A. Data gaps

(a) *Measuring informal sector employment*

24. Currently, the population census and labour force survey (LFS) are the main sources of data on employment for developing countries in the region.¹² Countries are encouraged to adopt the internationally recommended concepts of economically active population, employment, status in employment, industry and occupation in the design and implementation of data collection methods. Generally, however, existing surveys do not collect sufficient information to classify employed individuals into the cells of the conceptual framework on informal employment defined by the 17th ICLS, specifically breaking down total employment by type of production units (formal/informal sector employment) and type of jobs (formal/informal employment). This lack of data clearly constrains any measurement and analysis of poverty risk of individuals in the informal sector.

25. The LFS is one of the most used vehicles for collecting data on employment in the informal sector¹³ and the best one for collecting data on informal employment outside the informal sector. A few countries in Asia and the Pacific have used the LFS as data source on an experimental basis by including additional questions in order to identify employees engaged or self-employed operating informal sector enterprises. However, no country in the region has so far included the collection of these kind of data as a regular feature of their statistical programme.

26. Some initiatives in improving data availability are being pursued. Hussmanns (2004)¹⁴ suggests a set of questions that can be incorporated into the LFS for applying the conceptual framework endorsed by the 17th ICLS, and collecting data on both informal sector employment and informal employment. This module has been tested with positive results by several countries, including Georgia, India, Sri Lanka and Thailand in the Asia-Pacific region.

(b) *Measuring poverty risks of informal sector workers*

27. Estimating poverty rates based on an income or consumption poverty line has long been hindered by lack of data. With an increased importance given to measuring poverty for monitoring the Millennium Development Goals and the Poverty Reduction Strategy Papers, more countries are collecting data on income and expenditure through household surveys such as household income and expenditure (HIES) or living standards (LSMS) surveys. These are mostly funded by international donors. The construction of absolute poverty lines such as cost-of-basic needs poverty lines is also being prioritized by NSSs, but collection of data on household income as well as national

¹² Except CIS countries and Transition countries in Asia which still rely mainly on administrative sources.

¹³ There are 'more dedicated' and thus more accurate methods for data collection on informal sector employment such as mixed household and enterprise surveys. However, unless estimation of total employment and informal employment are included as survey objectives, which they typically do not, these surveys will not provide the complete information needed for an informal/formal employment categorization.

¹⁴ See [8]

methodologies for constructing income- or consumption-based poverty lines is yet to be institutionalized in most countries in the region. Technical, operational and resource requirements for conducting an HIES or an LSMS¹⁵ and for applying poverty line methodologies remain major challenges.

28. The choice between consumption expenditure and income as the basis for determining poverty status is important to the issue of relating poverty risks of informal sector workers. The use of consumption expenditure has been recommended for use in poverty measurement in developing countries for conceptual and practical reasons. Conceptually, consumption expenditure is a better measure of both current and long-term welfare. Practically, income is considerably more difficult to measure.

29. Household income is more difficult to measure for several reasons:¹⁶

(a) Survey questions on income typically require a longer reference period than is needed for questions on expenditures because income estimates for periods less than a year will be affected by seasonal variation, especially for agricultural households. This introduces greater problems of recall error;

(b) Household income is hard to construct for self-employed households and those working in the informal sector because of the difficulty in separating out business costs and revenue. In developing and transition economies, the sources of household income are more diverse than the categories of household consumption so it is harder to design and implement questions for all of these sources;

(c) Questions about consumption are usually viewed as less sensitive than questions about income, especially if respondents are concerned that the information will be used for tax collecting purposes or where illegal or barely legal activities provide a substantial portion of household income.

30. Thus, data quality issues often constrain the use of income data for poverty analysis. But for analyses that aim to link poverty with employment, income-based measures would be more useful in relating poverty risks to employment related income. The problems listed above show that measurement of income from informal sector employment is a major issue; a specific issue is that of measuring earnings from self-employment, and consequently for earnings of workers in the informal sector.

31. Two different approaches to measure income (net revenues) from self-employment are commonly used in household surveys:

¹⁵ Many countries are able to conduct an LSMS through funding from external sources such as World Bank and the Asian Development Bank. For most of these countries, these are not programmed into national budgets for statistical projects.

¹⁶ See [12]

(a) Method 1: Have respondents estimate total receipts/revenues and total expenses/expenditures (including the market value of non-monetary revenues and expenses). Self-employment-related income then equals total receipts less total expenses;

(b) Method 2: Have respondents estimate their net income from business/enterprise activities directly. That is, ask respondents to estimate how much income they derive over a particular period of time from their self-employment activities.

Often these two methods produce markedly different results.¹⁷

32. Theoretically, method 1 provides more accurate results, if careful records of revenues and expenses are kept by respondents. However, the informal self-employed generally do not keep detailed accounts of business receipts and expenses. (In fact, one criterion used in classifying enterprises as informal sector enterprises is the absence of record-keeping and accounting.) Thus, method 2 would have to be applied in their case. The risk with method 2 is that individuals may confuse personal expenditures with operating expenditures if simply asked to estimate a figure and thus underestimate their income.

33. Underestimation of self-employment income would result in overestimation of poverty rates. Thus, there is a need to devise better methods for measuring income from self-employment for informal sector workers.

B. Integrating person-level and household-level analysis

34. Data on employment characteristics is measured at the individual level, whereas, indicators of poverty are usually based on household level measurements. Understanding the complex linkages between employment in the informal sector and poverty requires analyses whereby (a) the poverty situation of a household is attributed to all its members (regardless of their employment status or the characteristics of their job) and (b) the employment characteristics of some of the family members are attributed to the household unit as a whole.

35. The main issue related to the first case (household characteristics attributed to each one of its members) is related to the practice of classifying an individual as poor if the household to which he or she belongs is poor. Thus, a worker with a very low income may belong to a household that is classified as NOT poor because the total income of the household, taking into account the income of the other members, is high. Therefore, individual income disparities cannot be properly assessed.

36. In the second case (employment characteristics of some its members attributed to the entire household), a common type of analysis is the use of some categorization of households based on "major source of income". For example, a household may be classified as sustaining itself on income

¹⁷ The value of output produced, but consumed by the household, and/or the value of non-monetary income, revenues, or expenses (e.g. payments in-kind) should be included in the estimates of income, whenever possible.

from informal sector employment if the larger share of household income is earned by informal sector workers. One of the limitations of this kind of poverty analyses is that it does not cover all informal sector workers. In particular, an informal sector worker may live in a household with multiple earners where the larger share of income comes from members employed in the formal sector; the poverty risks of informal sector workers may thus be overestimated. This limitation can be overcome by identifying all possible configurations of the employment structure of households in relation to informal sector employment.

37. The two approaches highlighted here for connecting informal employment to poverty outcomes provide different kinds of information about these linkages. Taken together, they reveal a significant amount of information on income inequalities at household level that can be used to devise targeted policy measures.

C. Linking data on informal sector employment and poverty

38. Analyses of the links between informal sector employment/informal employment and poverty are not usually feasible because the most reliable way of collecting information on the two topics is through “dedicated” separate surveys such as the LFS or mixed household and enterprise surveys for informal sector employment, and HIES or LSMS for poverty measurement. Some countries use the LFS also to collect information on earnings of employees and, less frequently, on income from self-employment activities. Using the LFS, however, it is possible to collect only data on income from employment is surveyed (income from other sources are not recorded) and, more generally, the total household income is usually underestimated (no probing questions on expenditures).

39. Two possible approaches can be followed to combine information on employment characteristics of individuals and household income:

(a) A single complete survey that collects data on both informal sector employment and household income (or separate household surveys that collect data from the same sampling units);

(b) Statistical matching of records and information belonging to similar (although different) sampling units.

40. A single complete survey provides a straightforward link between person- and household-level characteristics. An excellent example of how this may be done for linking the dual objectives of measuring informal sector employment and poverty measurement is the 55th Round of the Indian National Sample Survey, the 1999-2000 Employment and Unemployment Survey (EUES). The main modifications introduced in the standard survey were:

(a) Inclusion of probing questions that asked workers in non-agricultural enterprises about specific features of the enterprises in which they worked for the purpose of identifying informal sector enterprises;

(b) Data collection – through an abridged worksheet – on the consumption expenditure of the household.¹⁸ Generally consumer expenditure schedules are much longer and are canvassed in a different set of sample households than the EUES. However, for the 1999-2000 survey, a one-page worksheet with 32 items of consumption was specified. Tests and adjustments of the data were then made based on the regular Consumer Expenditure Survey.

41. These modifications allowed for the measurement of the poverty rates of the households sustaining themselves, respectively, on formal employment, informal sector employment and informal employment outside the informal sector. With the successful use of data from this survey – as done by Sastry and Manna, whose results are presented later in this document – similar features were incorporated in the design of the 2004-2005 (61st round) of the EUES.

42. Often, however, a survey that incorporates the complex data requirements of an LFS, an HIES and an informal sector survey would have a very lengthy questionnaire. The response burden is bound to increase and consequently the non-response rate to grow as well as the accuracy of responses to decrease, affecting the quality profile of the survey.

43. Statistical matching of records belonging to similar (although different) sampling unit is a possible solution to this dilemma, as information from two or more data sources can be combined to allow for the types of analyses that would be impossible from one input data source alone.

44. In the basic application of statistical matching, observations from two data sets, file A and file B, are available on a set of common variables (X-variables). File A contains also variables not available on file B (Y-variables) and file B contains variables not available on File A (Z-variables). Statistical matching involves constructing a new data set (file C) with information on X, Y and Z on each record. In the application being proposed here, an LFS would be the source data for file A and a HIES would be the source data for file B. Unlike merging or record linkage techniques where the same units (e.g., person) from the separate files are linked and file C contains all the variables corresponding to the unit, statistical matching creates a file consisting of artificial units, i.e units not actually observed.¹⁹

45. The informative value of file C depends on how “close” the artificial units are to the original units, in terms of socio-demographic characteristics and hence employment and poverty outcomes. The quality of the statistical matching procedures relies on the correct specification of a statistical model that best captures the relationship among the variables X, Y and Z. Basic requirements to improve the accuracy of the matching outcome include: reliability of the information contained in the separate data sets to be linked; harmonization of the definitions of the common variables used in the

¹⁸ Refer to [6].

¹⁹ D’Orazio, M., M. di Zio & M. Scanu (2002): “Statistical Matching: a tool for integrating data in National Statistical Institutes. http://webfarm.jrc.cec.eu.int/etk-ntts/Papers/final_papers/43.pdf

separate surveys; synchronization of survey operations; utilization of the relationship between the variables Y and Z in the selection of the model.²⁰

46. As opposed to introducing a new single complete survey, statistical matching has the advantages of making use of existing data sources and of avoiding increasing the respondent burden for the households selected as sampling units. It therefore represents a more cost-effective strategy, allowing the NSO to invest in the existing data sources (the LFS and the HIES in this case) to better capture the specific information that each survey is most suited to collect.

IV. POVERTY AND THE INFORMAL SECTOR: SOME EMPIRICAL EVIDENCE

47. This section provides some illustrations of the linkages between informal employment,²¹ the informal sector and poverty outcomes, based on the little empirical evidence currently available. In the Asian and Pacific region, only India, as mentioned earlier, has so far conducted two rounds (in 1999/2000 and 2004/2005) of an integrated LFS and HIES survey that allows to study these linkages (Employment and Unemployment Survey, EUES). Results from the 1999/2000 round are analyzed by N.S. Sastry (2004) and G. C. Manna (2004)²² and presented in this report.

48. At the global level, a research commissioned for the UNIFEM publication *Progress of the World's Women: Women, Work, and Poverty* (Chen, et al., 2005)²³ offers new findings for five developing countries - Costa Rica, Egypt, El Salvador, Ghana and South Africa - obtained by re-processing the micro-level data from integrated household surveys.²⁴ The results, though, are analyzed along the simple dichotomy of formal/informal employment and therefore are unable to provide information regarding poverty risks of informal sector workers.

49. As discussed in the previous section, linking informal employment to poverty status requires establishing connections between employment characteristics at individual level and poverty status at household level. In the studies conducted on the Indian case, the analysis is carried out at household level, identifying those among them that sustain themselves on income from informal sector employment. The studies conducted on five countries from other developing regions, instead, focus their analysis on the relative poverty risks of informal workers.

²⁰ Ingram, D., J. O'Hare & F. Scheuren (2000). Statistical Matching: A New Validation Case Study. www.amstat.org/sections/SRMS/Proceedings/papers/2000_126.pdf. Accessed on 19 October 2006.

²¹ The definitions of informal and informal sector employment used in these studies are consistent with the 17th ICLS guidelines.

²² Sastry, N.S. "Estimating Informal Employment and Poverty in India," United Nations Development Programme India, Discussion Paper Series-7, December 2004, pp. 6-8 and pp. 21-22.; Manna, G. C. "On the Linkage between Employment in the Informal Sector and Poverty: The Indian Experience". Paper presented at the 9th Meeting of the Expert Group on Informal Sector Statistics, New Delhi, India.

²³ Chen, M., Vanek, J., Lund, F., Heintz, J., Jhabvala, R., and Bonner, C. (2005). *Progress of the World's Women 2005: Women, Work, and Poverty*, New York: UNIFEM.

²⁴ Costa Rica Multi-purpose Household Survey, 2003; Egyptian Labour Market Survey, 1998; El Salvador Multi-purpose Household Survey, 2003; Ghana Living Standards Survey (4th round), 1998/99; South Africa Labour Force Survey, 2003.

50. An overview at country level of the poverty rates for the employed population divided by type of employment (formal/informal) and sex is contained in table 1. For all countries, poverty rates of informal workers are significantly higher than those for formal workers. Moreover, poverty risks of women workers are lower than that of men, except in Ghana. This is true both in formal and informal employment, even though, as it will be shown below (table 4), women's earnings are often substantially lower than men's (Chen et al., 2005). The reason for this apparent inconsistency was discussed earlier: women's employment earnings, contributing to overall household income, often raise it above the poverty threshold. Therefore, households in which women do not work may suffer higher risks of income poverty.

Table 1. Poverty rates of formal and informal workers by sex

Country	TOTAL			Men			Women		
	Total	Formal	Informal	Total	Formal	Informal	Total	Formal	Informal
Costa Rica (2003)	9.6	4.7	16.0	10.5	5.8	17.1	8.1	2.5	14.2
Egypt (1998)	47.6	21.3	50.9	50.3	23.7	52.3	40.6	10.8	46.0
El Salvador (2003)	31.2	14.3	38.5	34.1	16.1	41.8	27.3	12.4	33.7
Ghana (1998/99)	65.2	44.0	67.5	62.9	40.6	66.3	66.7	44.1	68.4

Source: Chen et al, (2005).

51. Informal employment is a greatly diversified aggregate, comprising numerous components that have rather distinct income situations. A simple dichotomous framework, in which employment is classified as either formal or informal, is not sufficient for understanding the connections between informal employment and poverty. The detailed structure of informal employment must also be analyzed. Further disaggregations by industry and status in employment enhance our understanding of poverty risks.

52. Table 2 clearly shows that workers in both formal and informal employment in agriculture have higher poverty risks than those in non-agriculture. In three out of the four countries with available data, informal workers in non-agriculture have poverty rates that are not bigger than formal workers in agriculture.

Table 2. Poverty rates of formal and informal workers by industry

Country	Total		Formal		Informal	
	Non-agricultural	Agricultural	Non-agricultural	Agricultural	Non-agricultural	Agricultural
Costa Rica	7.5	23.8	3.7	13.3	12.6	30.9
Egypt	36.1	50.7	21.4	18.9	50.5	51.4
El Salvador	25.3	59.6	14.0	30.0	31.6	60.6
Ghana	52.8	76.3	43.5	65.6	54.9	76.3

Source: Chen et al, (2004).

53. The relative poverty rates²⁵ of workers according to their employment status are presented in table 3. Workers in informal employment always have relatively higher poverty rates than private wage earners in formal employment. However, in countries where the comparison can be made, informal own-account workers have poverty rates similar to those of their colleagues in formal employment.

Table 3. Relative poverty rates of formal and informal workers by sex and employment status (poverty rates of formal private paid employees = 100)

		Formal			Informal		
		Own-account	Private wage	Public wage	Own-account	Private wage	Unpaid
Costa Rica	Women	n.a.	100	n.a.	735	330	757
	Men	n.a.	100	51	249	205	158
Egypt	Women	n.a.	100	64	416	293	219
	Men	69	100	100	218	200	86
El Salvador	Women	n.a.	100	30	233	207	206
	Men	197	100	80	179	197	214
Ghana	Women	233	100	164	257	n.a.	314
	Men	173	100	166	146	n.a.	226

n.a. indicates that data were not available or that there were insufficient observations to derive statistically significant estimates.

Source: Chen et al, 2005.

54. Data on earnings provide indications of individual risks of workers. Table 4 shows relative hourly earnings as a percentage of earnings for formal, private non-agricultural wage workers. The data reveal that earnings from formal employment are generally higher than earnings from informal employment. However, one important exception is informal employers, who earn more than private wage workers in formal employment.

55. Relating these data on earnings to the poverty risks shown in table 3, it would seem that lower earnings lead to higher poverty risks. Private wage informal employees in Costa Rica, for example, have relatively higher earnings than informal own-account workers, and have lower poverty risks. For El Salvador, informal own-account workers have higher earnings and have lower poverty risks compared to informal wage employees.

56. This hierarchy of earnings among informal workers corresponds also to income segmentation by sex. Earnings are higher among informal employers and regular informal wage workers, where men's employment is dominant, and lower among casual wage workers and industrial outworkers, where women's employment is concentrated.

²⁵ The "relative" measure of poverty indicates the poverty rates of each category as a percentage of a common baseline. The baseline in this case is represented by the poverty rate of private wage earners in formal employment.

Table 4. Hourly earnings in non-agriculture as a percentage of the hourly earnings of formal, private non-agricultural wage workers, by employment status

	Costa Rica	Egypt	El Salvador	Ghana	South Africa
Formal					
Employers	257.0	n.a.	544.0	n.a.	n.a.
Own-account workers	141.8	n.a.	654.2	89.6	255.5
Private employees	100.0	100.0	100.0	100.0	100.0
Informal					
Employers	138.2	n.a.	249.9	n.a.	43.7
Own-account workers	56.3	n.a.	78.5	66.6	29.4
Private employees	60.0	77.4	62.7	n.a.	49.6

n.a. indicates that data were not available or that there were insufficient observations to derive statistically significant estimates.

Source: Chen et al, 2005.

57. The data shows that there are differences in poverty risks of the working poor in informal employment. This presumably holds true also in the informal sector but no definitive conclusions may be drawn from the very limited results available. There are, however, clear indications that treating everyone employed in the informal sector as identical will create problems for users and policymakers trying to link informal employment to poverty.

58. As mentioned earlier, poverty risks of working individuals are determined not only by their personal capacity to earn income but also by the characteristics of their households and their livelihood strategies. Income-based poverty analysis should look at the contribution of the individual to total household income. Thus, data on characteristics of individual employment and income from employment are needed to form these household-type categories.

59. A second set of useful analytical categories are those based on household employment composition, such as the number of income earners. In the case where there are multiple earners, further categorization by employment status of principal earner would shed further light on the contribution of informal sector employment to the poverty risks of households.

60. Given these classifications of households defined by the employment characteristics of members, poverty profiles of the various subpopulations of households of employed individuals can form the bases for analysis of poverty risks as explained by household demographic composition, headship of households, etc.

61. Data from India provides some evidence that households that rely primarily on income from informal employment have higher poverty rates than those that rely on income from formal employment. A hierarchy of poverty risk in this kind of households can be established in relation to different sources of income from informal employment: industrial outworkers, casual employees and domestic workers come at the top of the ladder, whereas own-account workers and informal employers can be found at its bottom (Chen et al (2005)). This further suggests that households that depend on the most precarious forms of informal employment are likely to have higher poverty rates than those that have access to more stable employment.

62. Sastry (2004) and Manna (2005) classify households in India according to whether income from employment is derived solely from informal sector employment²⁶ (informal households) or is derived solely from formal sector employment (formal households).²⁷ Table 5 shows that the informal households have much higher poverty rates than the formal households; this is true in both urban and rural areas although the difference is higher in urban areas (25.7 per cent vs 7.1 per cent). Compared to all households, poverty rates of formal households are much lower. For informal households, however, urban poverty rates are higher while rural poverty rates are lower.

Table 5. Poverty rates by household category, India, 1999/2000

	Formal Households	Informal Households	All Households*
Rural	10.7	21.1	25.2
Urban	7.1	25.7	21.5

Source: Manna (2005).

These poverty rates were derived by the author from unit-level survey data. Official poverty rates from the Indian National Planning Commission as cited in Sastry (2004) are 27.1 per cent and 23.6 per cent in rural and urban areas, respectively.

63. Sastry (2004) looks further into the poverty risks of households that sustain themselves on informal sector employment income in non-agriculture. Table 6 shows that urban households in India that sustain themselves on non-agricultural employment in the informal sector have higher poverty rates than rural households across all industries.

²⁶ Manna classifies such households as “households with the members engaged in the informal sector alone while Sastry classifies these households as “households sustaining on employment in informal sector”.

²⁷ These are classified by Manna as “households with members engaged in the formal sector alone”.

Table 6. Poverty rates of households sustaining themselves on informal sector employment by industry and rural/urban location, India, 1999/2000

Industry	Rural		Urban	
	Very poor	Poor	Very poor	Poor
Manufacturing	6.9	23.8	9.4	26.5
Construction	6.8	26.3	14.4	33.9
Trade	4.4	17.2	8.4	21.4
Total	6.1	21.9	11.0	27.3

Source: Sastry (2004).

“Very poor” persons are those whose consumption is less than 75 per cent of the poverty line.

A household sustaining itself on employment in a particular industry, say manufacturing, is defined as a household “having at least one usual principal status worker in informal manufacturing and no usual principal status worker outside informal manufacturing”.

64. In table 7, the urban households are further classified by employment status and job stability. Poverty rates are three times higher for households that depend on informal casual wage income than for households that rely on self-employment or regular wage employment; and this holds across all industries.

Table 7. Poverty rates of households sustaining themselves on informal sector employment by employment type and industry, urban-India, 1999/2000

Industry	Household employment-related income type					
	Self-employed		Regular employment	wage	Casual employment	wage
	Very poor	Poor	Very poor	Poor	Very Poor	Poor
Manufacturing	8.90	25.89	6.76	21.30	18.52	41.55
Construction	6.76	20.28	5.91	14.70	19.48	43.35
Trade	8.27	21.01	7.24	19.11	17.20	36.99
Total	9.53	24.71	7.42	21.57	22.86	47.06

Source: Sastry (2004).

65. The number of income earners in a household may influence the poverty status of the household and its individuals. For example, a worker in the informal sector may live in a household

with multiple sources of income (leading to per capita income above the poverty line) and therefore may not be classified as poor.

66. Data from South Africa provides some evidence of this. Poverty rates of households classified by number of earners (one earner, two earners, and more than two earners) cross-classified by source of income (mostly informal and mostly formal) show that these rates decline as the number of earners decrease, independent of the main source of income. The data further indicate that poverty rates are higher in households where majority of earned income is from informal employment—regardless of the sex of the head of household or the sex of the primary earner (earner having largest share of household earnings).

67. In light of the empirical illustrations presented above, this report suggests a data framework for the analysis of poverty risks of workers in the informal sector. The strategy identifies the need for both person-level and household-level data and emphasizes the importance of carrying out both types of analyses. The examples have illustrated the following types of analysis that are useful in linking poverty outcomes and employment in the informal sector:

(a) Comparisons of poverty measures by person-level employment characteristics: sex; status in employment; industry of employment; etc;

(b) Comparisons of poverty measures by household-level characteristics defined in terms of employment characteristics of employed members: employment structure of household members by major source of employment income (e.g. formal vs informal by status in employment); number of earners; characteristics of employed heads; household size and composition; etc.

V. POINTS FOR DISCUSSION

68. The report showed the usefulness of collecting and analysing data on the linkage of informal employment, in particular employment in the informal sector and poverty. Linking person-level and household level analysis is a basic requirement for studying the determinants of poverty of informal sector workers and their households. Towards this end, two main measurement issues need to be addressed: data gaps in the areas of informal sector employment statistics and income-based poverty statistics and the need to link data on employment and on household income that are collected in separate surveys.

69. The Committee may wish to discuss the following recommendations of the report:

(a) Improving the availability of data on informal employment and employment in the informal sector by including appropriate questions in labour force surveys;

(b) Developing a data framework for analysing the linkages between informal sector employment and poverty outcomes based on the conceptual framework endorsed by the 17th ICLS defining the informal economy and informal employment.

70. The Committee may also wish to consider and provide guidance on the feasibility of the following options for linking data on employment in the informal sector and household income:

(a) A single complete survey such as the modified version of the 55th round of the Indian Employment and Unemployment Survey;

(b) Applying statistical matching procedures to link the employment data of persons (from labour force surveys) and household income data (from household income and expenditure surveys).

71. It takes full commitment and concerted efforts to address these tremendous data challenges. To raise public awareness and increase national technical capacity to collect and disseminate better data on informal sector and informal employment, ESCAP Statistics Division, in cooperation with ECLAC and ESCWA and other partners, is in the process of implementing a Development Account project on interregional cooperation on the measurement of informal sector and informal employment.²⁸ One important outcome of this project will be a growing momentum among countries to put more resources into increasing data availability on informal sector employment. This in turn will hopefully provide more information on the linkages between informal sector and poverty reduction.

72. The Committee may wish to recommend that the secretariat examine the ways in which the project activities can directly address the measurement issues discussed in this document.

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²⁸ Development Account: 5th Tranche. Project 0607A Interregional Cooperation on the Measurement of Informal Sector and Informal Employment. Approved by the United Nations General Assembly Sixtieth Session, A/60/6 (Sect. 34).