



EUROPEAN REPORT
ON DEVELOPMENT

REVIEW OF AFRICAN HOUSEHOLD SURVEY DATA ON SOCIAL SAFETY-NETS AND THE ROLE OF EDUCATION, REMITTANCES AND MIGRATION

Yaw Nyarko, Department of Economics, New York University

Kwabena Gyimah-Brempong, Department of Economics, University of South Florida

Klaus Peter-Hellwig, Department of Economics, New York University



Paper prepared for the Conference on “Promoting Resilience through Social Protection in Sub-Saharan Africa”, organised by the European Report of Development in Dakar, Senegal, 28-30 June, 2010.



MOBILISING EUROPEAN RESEARCH
FOR DEVELOPMENT POLICIES

ABSTRACT

The question of the social protection of the poor and social safety-nets in Africa has recently received attention from the European Union, United Nations agencies, as well as in many academic papers and conferences. We provide a review of African Household Survey Data on Social Safety-Nets, looking for those which are relevant for the study of the role of Education, Remittances and Migration on Social Safety-Nets. Some of these data were used for our related paper Nyarko and Gyimah (2010) which studied the role of the three inter-related mechanisms related to protection against shocks: Education, Remittances and Migration. We identify a number of datasets and indicate the ease of collection as well as the relevance to the debates on Social Safety-Nets. We identify the availability of variables of interest for many of the datasets.

Yaw Nyarko

Department of Economics, New York University
yaw.nyarko@nyu.edu

Kwabena Gyimah-Brempong

Department of Economics, University of South Florida
kgyimah@usf.edu

Klaus Peter-Hellwig

Department of Economics, New York University
kph249@nyu.edu

The views expressed in this paper are those of the authors, and should not be taken to be the views of the European Report on Development, of the European Commission or of the European Union Member States.

1 INTRODUCTION

Recently, the European Union, UN agencies and governments and organisations inside and outside Africa have become very interested in the question of the provision of social protection to the poor who face income shocks of various kinds. The question of social protection has become the focus of a number of high level meetings and studies at the UN Economic Commission on Africa (UNECA), in particular, in relation to the Millennium Development Goals.¹ There have been a number of studies there on the broad topic of Social Safety-Nets in Africa.

In this companion piece, we scan the literature and provide a review of the datasets on African nations relating to the question of the role of education, migration and remittances on social protection mechanisms against shocks to incomes.

In our earlier work, Nyarko and Gyimah (2010), we studied the question of Social Safety-Nets in Africa and argued that education is important for the provision of protection against shocks, and, further, that remittances and migration are critical parts of the question. In particular, we compared the use of cash transfers with the provision of increased formal education in their ability to provide protection against shocks to incomes. The premise in that paper is that education is an important means of reducing the vulnerability to shock in the incomes of households in sub-Saharan Africa. It is possible that investment in schooling is a more efficient way of providing social protection, in comparison to direct cash transfers. One is reminded of the saying "Give me a fish and I eat for a day. Teach me to fish and I eat for a lifetime," generally believed to be Confucian.

Remittances are also a big part of the social protection story in Africa. It is an important independent factor in the provision of social protection. To the extent that remittances are correlated with the income of the sender, and the latter is, in turn, correlated to the education of that sender, we see a second role for education in reducing vulnerability through its effect on remittances.

Finally, when things get very bad, people migrate. This, too, is a mitigating factor when there are shocks to incomes, although they are often associated with trauma and upheaval. It is therefore important to look at the available datasets on migration in response to shocks to incomes. Of course, to the extent that education may help either with regard to the probability of successful migration or with regard to the ultimate income of the migrants, education has another role to play in the social protection equation.

There is more that is relevant for the migration story. Migration, especially to countries in the West, often results in increases in remittances to those left behind. In many sub-Saharan countries, the remittances that come from abroad, and particularly from the west, are significant fractions/proportions of the total foreign exchange inflows. Furthermore, remittances are often used to help the family members left back home, often the very poorest members of societies. There is some evidence that the remittances are counter-cyclical, and, hence, that they may be important in reducing vulnerability. In a companion piece, we explored these remittances and migration channels (See Gyimah and Nyarko (2010)). They all have the effect of boosting the social protection returns to education.

To answer the question of the impact of education, migration and remittances on education adequately, there is need for data. However, it is often very hard to locate data for Africa. This paper provides a summary of some of the datasets we have been able to locate that are relevant to the question.

1 See <http://www.uneca.org>.

In Section II, we talk about possible shocks to the incomes and identify some papers using data relevant to this. Section III is our main section, which describes many interesting national livings surveys conducted in Africa. There is a description of the datasets and the variables which they contain. Section IV makes some brief remarks about the returns to education literature, which has generated a lot of academic interest for a few decades now. We conclude in Section V.

2 SHOCKS

Social protection is needed to help individuals who face shocks to their incomes. These shocks can, of course, come in many forms. What are the shocks to incomes studied in the literature? In the recent literature, we have identified a number of different types of shocks and list a few, and provide representative papers. The paper by Glewwe and Hall (1998) is probably the one which models shocks which are the closest in spirit to the kinds of shocks which we envisage on incomes in Africa that could be “protected” by education, remittances and possibly migration, and envisaged in our earlier work Gyimah and Nyarko (2010). Among the shocks treated, there are changes in export prices, in real interest rates, and in inflation.

Financial crises have also been used in the literature. Some representative papers more recently include Fallon, Lucas (2002), Goh, Kang, Sawada (2005), Kang, Sawada (2004), McKenzie (2003) and (2004), Suryahadi, Sumarto (2003), McKenzie (2003) and Sawada (2007).

For sub-Saharan nations, which are the focus of interest of our review, weather is an important source of shocks to incomes. A representative sample of some of the recent papers that study weather shocks include Calero, Bedi and Sparrow (2009), Choi (2007), Jacobi and Skoufias (1997) and Fafchamps, Udry, and Czukas (1998). In many countries, it is possible to get rainfall and other meteorological data from national weather departments. Many of the papers just listed rely on such sources.

3 The DataSets and Variables

Investigation of the relationships among social safety-nets, education, remittances, and migration requires micro-level data on individual (household) education, migration, remittances, other socio-economic characters of the remitters as well as that of the vulnerable population. These detailed datasets are generally not available for most African countries. The available datasets do not have information on the educational attainments, income levels, employment, and other characteristics of individual migrants, or remitters in general. Similar data for the recipients of remittances are not available, either. One is forced to use household level data on education, remittances, and migration as well as other proxy variables in order to conduct an analysis of the relationship between education, migration, and social safety-nets in Africa.

We now provide a narrative description of some of the household datasets relevant to this. A lot of our discussion is summarised in Table 1 below.

Table 1

**REVIEW OF AFRICAN HOUSEHOLD SURVEY DATA ON SOCIAL SAFETY-NETS AND THE ROLE OF EDUCATION,
REMITTANCES AND MIGRATION**

Country	Survey	Income	Employment	Education	Migration	Remittances	Credit	Shocks
Burkina Faso	Enquête burkinabé sur les conditions de vie des ménages (EBCVM) 1994 / 2003	x	x	x	x	x		Crisis in Cote d'Ivoire
Cote d'Ivoire	LSMS	x	x	x	x	x	x	
Ethiopia	Welfare Monitoring/Income, Consumption and Expenditure Survey (WMSIII/HICES-2000)	x	x	x		x		
	Ethiopian Rural Household Surveys (ERHS), PANEL	x	x	x	x	x	x	
Gambia	Household Education and Health Survey 1993	x	x	x		x	Repayment	
	Household Economic Survey 1992	x	x	x	x	x		
Ghana	The Ghana and Tanzania Urban Household Panel Surveys	x	x	x		x (2006)	x	
Lesotho	Continuous Multi Purpose Survey	Expenditure	x	x	x	x		
Malawi	LSMS	x	x	x			x	x
Mali	Enquête Malienne de conjoncture économique et sociale 1994	x	x	x	x	x		
Niger	Enquête nationale sur le budget et la consommation des menages 2007	x	x	x	x	x	x	x
Nigeria	NIGERIA LIVING STANDARDS SURVEY 2003	x	x	x	x			
Sierra Leone	Sierra Leone Integrated Household Survey (SLIHS) 2003/04	x	x	x	x		x	War
South Africa	LSMS	x	x	x	x	x	Debt	
	LCS 2008/09	x	x	x		x	Debt	
	Community Survey 2007	x	x	x	x			
	Income and Expenditure Survey 2000	x	x			x	x	
Tanzania	LSMS1993		x	x				
	LSMS2004	x	x	x	x	x	x	x
	Household Budget Survey 2007	x	x	x		x		
	The Ghana and Tanzania Urban Household Panel Surveys:	x	x	x			x	
	Uganda National Household Surveys	x	x	x	x	x	x	x
Uganda	INTEGRATED HOUSEHOLD SURVEY 1992	x	x	x	x	x	x	
	Welfare Monitoring Survey I	x	x	x	x	x		

The most readily available datasets on the link between education, remittances, migration and social safety-nets are the Living Standards Survey data-sets (LSS) that have been collected with the help of the World Bank in a handful of African countries, as well as the Ethiopia Rural Household Survey (ERHS) data collected by the Economics Department at Addis Ababa University in collaboration with the Centre for the Study of African Economies (CSAE) at Oxford University. LSS data sets collected for African countries include the Côte d'Ivoire Living Standards Survey (CLSS), the Ghana Living Standards Survey (GLSS), the Kagera (Tanzania) Health and Development Survey, the Malawi Integrated Household Survey MIHS), the Morocco Living Standards Survey (MLSS), and the South African Integrated Household Survey (SAIHS). Of these, the MLSS and the SAIHS surveyed in 1990/91 and the SAIHS conducted in 1993 have very little useful information on migration, educational attainment and remittances, although they do have information on poverty levels. The two waves of the MIHS, conducted in 1997-98 and 2004-05 respectively, have information on basic educational attainment, income shocks, receipt/participation in social safety-net programmes, and enough information for one to infer migrant status within the country. However, it has no information on migrant remittances (senders or recipients), thus rendering it inappropriate for investigating the relationships among social safety-nets, education, remittances, and migration. We briefly describe the other LSS datasets as well as the ERHS data which are appropriate for studying the relationships among social safety-nets, education and migration below.

Ghana Living Standards Surveys

Beginning in September 1987, Ghana, with the help of the World Bank, conducted surveys of the living standards of large nationally-representative samples of households at regular intervals. The GLSS1 was conducted in 1987/1988, GLSS2 in 1988/89, and GLSS3 in 1991/1992, and covered the entire country with a sample of 4,552 households in all 407 enumeration areas; The GLSS4 was conducted in 1998/1999, and covered the entire country and had a sample of 6,000 households, while GLSS5 was conducted in 2005/2006, and covered the entire country with a sample size of 8,687 households. Each succeeding wave of GLSSs covered more households, and also provided more detailed and comprehensive information about the living standards of Ghanaian households than previous ones. Households sampled in waves do not necessarily overlap. GLSS1 and GLSS2 did not collect detailed information on migration, education and remittances. However, GLSS3-GLSS5 contain information on individual and household education attainment, income, poverty, other socio-economic characteristics, as well migration and remittances, both from within Ghana and international. It is not possible to link international remittances to the educational attainment of the sender, but one can link the receipt of international remittances to the educational attainment of the recipient household. This allows one to investigate the relationships at least at household level.

The GLSS5 had a special migration module of 4,000 households that contains detailed information on education, income, socio-economic characteristics, migration decisions, and remittances. This dataset would be ideal for conducting the analysis of social safety-nets, since it also contains information on poverty and vulnerability, but, unfortunately, this dataset is proprietary as it has not been released for public use. The hope is that this dataset will be released and future waves of GLSS will include this module.

Côte d'Ivoire Living Standards Survey (CLSS)

The first wave of the CLSS was conducted in 1985, the second wave in 1986, and the next two waves following in 1987 and 1988 respectively. Since then, there has not been a follow up of the CLSS. Wave 1 of the CLSS sampled 1,588 households, while the next three waves (CLSS2-CLSS4) sampled 1,600 households. The CLSS sample design followed a two-stage sample design. In the initial stage, 100 primary sample units were

selected from across the country; 16 communities were then randomly selected in each of the 100 primary sample units. Unlike the GLSS, the CLSS is a rotating sample with 50 percent of households in each wave re-sampled in the next wave, while the other 50 percent are rotated out. Like the GLSS, the CLSS provides enough information for one to construct education, migration and remittance variables at household level in order to conduct an analysis of the relationship between education and social safety-nets. Like the GLSS, the information contained in the CLSS allows researchers to analyse international remittances received by households as well as domestic remittances sent by households.

Tanzania (Kagera) Health and Development Surveys

Tanzania has had a series of household surveys. There was one national survey (Human Resource Development Survey) conducted in 1993. The emphasis in this survey was human resource (education and health) development and there is very little in it that will allow it to be used to investigate the effects of education on migration, remittances, and social safety-nets. In addition to the Human Resource Development Surveys, there have been 4 household surveys, the Kagera Health and Development Survey (KHDS) conducted in the Kagera region of Tanzania. The surveys were conducted in 1991, 1992, 1993, 1994, and 2004. The KHDS 2004 is a panel of the earlier surveys. The major emphasis of these surveys is health and education. However, it contains enough information on social safety-nets, basic education, and remittances, to allow one to develop at least a correlation analysis of the relationships among education, remittances and social safety-nets. Although the KHDS data do not provide detailed information on education, migration, and social safety-nets, because it is panel data, it is well-suited to investigate the relationships among the variables, as it allows one to explore the dynamic response to vulnerability. The major limitation is that, in addition to the sparseness of the data, it only covers one rural region in Tanzania.

Ethiopian Rural Household Surveys (ERHS)

The ERHS is panel data of households covering a large number of rural households in Ethiopia. The survey, conducted jointly by the Department of Economics at Addis Ababa University and CSAE, was begun in 1989 when 6 farming communities were surveyed. Since then, the surveys have expanded to cover rural communities in most of the country. The 1989 survey was followed by surveys in 1995, 1997, 1999, and 2004. The data collected include both community and household data dependent variables. Besides income, education and other socio-economic characteristics, remittances, and vulnerability make it an ideal dataset to investigate the relationship among education, migration, remittances and social safety-nets. A particularly strong characteristic of this data-set is that it distinguished between government social safety-net programmes and social safety-nets provided by family members and local community members generally. On the other hand, remittances are not generally broken down between domestic and international remittances.

As mentioned earlier, Table 1 below provides a quick summary of some of the datasets, indicating the types of variables which they contain and other details.

4 RESEARCH ON THE RETURNS TO EDUCATION

There is, of course, a large amount of literature which uses many of the datasets above to compute the returns to education. This literature is actually a source of information on datasets across the world, although, as mentioned earlier, only a few of them exist for African nations. Psacharopoulos (2004) provides an excellent review of some of the older papers on the rates of return, most of them written by Psacharopoulos and his co-authors. This paper lists the results on the computed rates of returns for primary, secondary and tertiary education based primarily on the authors own prior work.

For some of the newer work in this literature, we have provided information on more recent papers in Table 2. As before, most of the datasets used for these newer papers are from household surveys, although a few are from surveys of manufacturing firms.

Table 2

Author(s)	Year	Title	Survey type
De Vreyer et al.	2010	Migration, Self-Selection and Returns to Education in the WAEMU	Households (7 countries)
Fonkeng and Ntembe	2009	Higher education and economic development in Africa: The case of Cameroon	Households
Kazianga	2004	Schooling Returns for Wage Earners in Burkina Faso	Households
Siphambe	2000	Rates of return to education in Botswana	Households
Söderbom et al.	2003	The Dynamics of Returns to Education in Kenyan and Tanzanian Manufacturing	Employees in manufacturing firms
Uwaifo	2010	Africa's Education Enigma? The Nigerian Story	Households

Conclusion

In this paper, we have scanned the literature in order to locate datasets which have the possibility of enabling researchers to study social safety-nets, and, in particular, to analyse the inter-related roles played by education, migration and remittances.

We have found that there are much less data available for African countries than is desirable. We hope that our work will spur many more countries and national statistical offices in Africa to conduct these vitally needed surveys, which are needed to obtain a fuller picture of poverty in communities in Africa and the relationship with education and the roles played by migration and remittances as mitigating factors.

References

- Calero, C., A. S. Bedi, and R. Sparrow, 2009. "Remittances, Liquidity Constraints and Human Capital Investments in Ecuador," *World Development*, vol. 37(6), pages 1143-1154, June.
- Choi, H., 2007. "Are Remittances Insurance? Evidence from Rainfall Shocks in the Philippines," *World Bank Economic Review*, vol. 21(2), pages 219-248, May.
- De Vreyer, P., F. Gubert, and F. Roubaud, 2010. "Migration, Self-selection and Returns to Education in the WAEMU," *Journal of African Economies*, vol. 19(1), pages 52-87, January.
- Fafchamps, M., C. Udry, and K. Czukas, 1998. "Drought and saving in West Africa: are livestock a buffer stock?," *Journal of Development Economics*, vol. 55(2), pages 273-305, April.
- Fallon, P. R. and R. E. B. Lucas, 2002. "The Impact of Financial Crises on Labor Markets, Household Incomes, and Poverty: A Review of Evidence," *World Bank Research Observer*, vol. 17(1), pages 21-45.
- Glewwe, P. and G. Hall, 1998. "Are some groups more vulnerable to macroeconomic shocks than others? Hypothesis tests based on panel data from Peru," *Journal of Development Economics*, vol. 56(1), pages 181-206, June.
- Goh, C, S. J. Kang, and Y. Sawada, 2005. "How did Korean households cope with negative shocks from the financial crisis?," *Journal of Asian Economics*, vol. 16(2), pages 239-254, April.
- Jacoby, H. G. and E. Skoufias, 1997. "Risk, Financial Markets, and Human Capital in a Developing Country," *Review of Economic Studies*, vol. 64(3), pages 311-35, July.
- Kang, S. J. and Y. Sawada, 2008. "Credit Crunch And Household Welfare, The Case Of The Korean Financial Crisis," *The Japanese Economic Review*, vol. 59(4), pages 438-458.
- Kazianga, H., 2004. "Schooling Returns for Wage Earners in Burkina Faso: Evidence from the 1994 and 1998 National Surveys," Working Papers 892, Economic Growth Center, Yale University.
- McKenzie, D., 2003. "How do Households Cope with Aggregate Shocks? Evidence from the Mexican Peso Crisis," *World Development*, Elsevier, vol. 31(7), pages 1179-1199, July.
- McKenzie, D., 2004. "Aggregate Shocks and Urban Labor Market Responses: Evidence from Argentina's Financial Crisis," *Economic Development and Cultural Change*, vol. 52(4), pages 719-58, July.
- Nyarko, Y. and K. Gyimah-Brempong (2010): "Social Safety Nets: The Role of Education, Remittances and Migration," *Economic Research in Development*, European Union.
- Sawada, Y 2007. "The impact of natural and manmade disasters on household welfare," *Agricultural Economics*, vol. 37(s1), pages 59-73, December.
- Siphambe, H., 2000. "Rates of return to education in Botswana," *Economics of Education Review*, Vol. 19(3), pp. 291-300, June.
- Söderbom, M., F. Teal, A. Wambugu, and G. Kahyarara, 2003. "The Dynamics of Returns to Education in Kenyan and Tanzanian Manufacturing," *CSAE Working Paper Series 2003-17*, Centre for the Study of African Economies, University of Oxford.
- Suryahadi, A and S. Sumarto, 2003. "Poverty and Vulnerability in Indonesia Before and After the Economic Crisis," *Asian Economic Journal*, vol. 17(1), pages 45-64, 03.
- Uwaifo, R., 2010. "Africa's education enigma? The Nigerian story," *Journal of Development Economics*, vol. 91(1), pp 128-139, January.