relate to one another.

But the ultimate tests to judge the book are posed by the editors themselves. One is to "show that a deeper understanding of rural dynamics and natural resource governance... [requires] an improved approach that connects economic, political, social and cultural dimensions and as well the linkages between micro and macro levels" (18). And another is to widen "the scope of analysis so... [as to cover] vertical and horizontal interconnections." To a large extent, the book fails to achieve these objectives. When cultural norms are unpacked at all, this happens in normative and modernist ways: "norms... constitute hindrances to both economic dynamism and to income diversification" (99). Also, the chapters do not adequately explore the vertical linkages that influence the dynamics of rural livelihoods—in any case not beyond local and national institutions and policies. There is no analysis of market access, trade, or value chains that link rural producers in the South with consumers in the North.

Finally, the book advocates "genuine research partnerships" (30) between Southern and Northern research institutions that go beyond "capacity building." More information on how the research project(s) that were behind the various chapters came about, how they were funded, and who set the priorities would have been a genuine test of the good intentions of the authors. Perhaps it would have even justified the otherwise haphazard way in which the chapters were assembled.

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**Etienne van de Walle, ed.** *African Households: Censuses and Surveys.* Amonk, N.Y., and London: M.E. Sharpe, 2006. xxxix + 247 pp. Figures. Maps. Tables. References. Index. \$104.95. Cloth.

Peter Laslett first showed us the sociological information available in historical census data. African census and survey data are rarely employed to such ends, so the African Census Analysis Project, a collaboration between the University of Pennsylvania and African institutions, arranged an Internet conference on African households in November 2001. These are the published results.

Here the "household" is merely a unit of enumeration. It generally contains members of at least one family, plus, often, unrelated others. Censuses take one of two definitions of the household. Francophone researchers tend to adopt a de jure, or social, definition of the household, thus including those who are absent on the enumeration day, while Anglophone researchers prefer a de facto, or residential, definition, and count only those physically present. The former runs the risk of double counts, while the latter tends to manufacture extra households and female heads.

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All of this is explained in van de Walle's masterful introduction. He notes that African censuses are weak when it comes to coding for intrahousehold relationships. In consequence, grandchildren, children's spouses, and domestic employees are often lumped together under the impenetrable category of "other relative." The most useful censuses are those that link husbands and wives, and mothers to their children.

Three of the chapters here examine the merits of various censuses and surveys. Van de Walle and Gaye's comparison of the Senegalese and Gambian censuses finds that Senegal's de jure census, just by including questions on marriage type and the rank of polygynous wives, is far more informative than the Gambia's more elaborate de facto census. Next, Labov shows the limitations of Tanzania's minimalist de facto census, which, however, does reveal that Tanzania's solitary females are usually separated, divorced, or widowed, and that the urban ones are more likely to be household heads than their rural counterparts. Then Hosegood and Timaeus's work on KwaZulu, Natal, shows how their time-consuming de jure survey accurately captures the emic realities of household composition, the high levels of individual and household mobility, the number of nonresidential members, and memberships in multiple households.

Vimard and Fassassi's chapter on the 1975–98 structural changes in Côte d'Ivoire's households is the only one with a central focus upon economics. They show that the recent increase in family breakups has less to do with a drift toward nuclear families than with households' relative prosperity. Single-parent households and coresident relatives are now permanent social fixtures.

Four of the chapters focus upon children. Townsend, Madhavan, Collinson, and Garenne's work in South Africa's Northern Province successfully traces personal relationships within and across household boundaries by training enumerators to use the six basic anthropological kinship terms. Households have become smaller, but more numerous and compositionally complex; and children with fathers away at work and those living with their parents get more schooling. Noël-Miller's study of Gambian grandparents and grandchildren finds no support for the hypothesis that children best survive weaning when sent to live with their maternal grandparents. They are, in fact, twice as likely to live with their paternal grandparents, and one-half of those times in their own parents' households. Mokomane, Baker, and van de Walle's chapter on extramarital childbearing and children's residence in Botswana attributes the high rate of single motherhood to the pressures put on young women to bear children regardless of their (or their partners') marital status. While economics determines urban mothers' ability to live with their children, rural mothers' ability to do so rests upon their living with parents, grandparents, uncles, or brothers. Then Kabore and Pilon's study of households and schooling in Burkina Faso finds that only one-half of a household's schoolage children are sent to school, and that the prospect for schooling is inversely proportional to the number of schoolage children in it. Schooling is 2.5 times more important in urban than in rural households, and is 1.4 times more important for female-headed rural households than for male-headed ones.

Finally, there are three chapters examining the relationships between spouses. Garenne's chapter looks at gender asymmetry among the Sereer of Senegal. Their unusually large households (averaging nine members) is a consequence of the shortage of land and women; and the position of women is determined by polygyny, virilocality, the male gerontocracy, and the tendency of unmarried females to live with their matrilineal kin. Next, Bartiaux's comparison of spouses' age and education in Cameroon finds that most marriages involve spouses with similar education but disparate ages. The smallest age difference (averaging 5.4 years) involves similarly educated spouses in monogamous marriages, while the largest difference (19.5 years) involves polygynous wives with more schooling than their elderly husbands. Finally, there is Luke's chapter on the position of inherited widows among Kenyan Luo. The censuses cannot decide if they are married or widowed. And contrary to popular wisdom, inherited widows are economically and sexually active, and thus have higher fertility rates but lower economic status than other married women.

Van de Walle's book convincingly demonstrates the insights available in largely underutilized census and survey data. This is a fascinating and impressive effort.

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Philip Porter. Challenging Nature: Local Knowledge, Agroscience, and Food
Security in Tanga Region, Tanzania. Chicago: University of Chicago Press, 2006.
xi + 318 pp. Tables. Figures. Photographs. Appendixes. Notes. Bibliography. Index.
\$55.00. Cloth.

This book synthesizes geographic, historical, social, and ecological processes to describe the shifting state of agrarian livelihoods in northeastern Tanzania. The author, a geographer specializing in cultural ecology, has developed a sophisticated computer model for simulating the dynamics of rainfall, soil mechanics, plant growth, and African farmers' decision making (available at http://www.geog.umn.edu/Faculty/Porter.html). Drawing upon an unusually rich set of rainfall data (1926–92), Porter shows that farmers' choices of cultigens, planting dates, spacing, and so on have, in general, been good ones. The computer models showed that the farmers' practices matched or surpassed the yields that they would have obtained had they followed the recommendations of Western agronomists. Scholars have long known that African farmers have extensive understand-ings of agricultural ecology; now we have quantitative data demonstrating