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Introduction

Thomas C. Pinckney

Peter K. Kimuyu

How does government policy affect the lives of rural people? To what extent have policies increased incomes, spurred agricultural growth, enhanced self-reliance, and reduced child morbidity? To what extent have policies exacerbated the problems facing rural people?

Such questions are central for policy makers, donors, and students of development. Researchers have sought to answer these questions in several ways. First, specific policies or interventions designed for the rural sector have been assessed, either for the country as a whole or for a particular region. Agricultural, health, and nutrition interventions have all been the subjects of such studies. Second, recent research has highlighted the importance of macroeconomic policies -- particularly trade and exchange rate policies -- on agricultural development in the country as a whole. This research has included assessments of the impact on rural development of both past macro policies and recent reforms of those policies. Third, much research has sought to build an understanding of the economics of rural markets and the behavior of rural households. These studies have ranged from theoretical models to intensive examinations of individual villages. Fourth, cross-sections of countries -- ranging in size from two to several dozen -- have been analyzed to ascertain the impact of different policies on growth. Examples of these types of studies include Kennedy and Cogill (1987), Mundlak, Cavallo, and Domenech (1989), Cornia, Jolly, and Stewart (1987), Singh, Squire, and Strauss (1986), Bliss and Stern (1982), Chenery and Syrquin (1975), and Hayami and Ruttan (1985).

Each type of research has contributed to our understanding of the impact of policy on the development process. Yet gaps remain, particularly with regard to the interacting effects of the spectrum of government policies at the micro level.

One way to answer some of the remaining questions would be through a longitudinal investigation of different rural communities with similar endowments, but subject to different policy environments. Focusing on small communities allows much more similarity in initial conditions than is possible in the cross-country studies, yet the topic of investigation would be considerably broader than in most previous village studies. The longitudinal aspect allows for consideration of both long and short-run impacts of policies, and provides for analysis of the effects of policy reforms. The study by Hayami and Kikuchi (1981) plays part of this role for Asian countries and is a valuable example of the usefulness of the basic approach. Their focus, however, is on the relationship between changes in agricultural technology and institutional development rather than on government policy.

Ideally, a study to fill this gap would be conducted over a decade or longer, with repeated sampling of households in a cross section of rural communities. Such a methodology would allow for comparisons between communities as well as comparisons within the same community over time. This was the rationale behind the excellent surveys conducted in the semi-arid tropics of India by ICRISAT beginning in the 1970's, and summarized usefully in Walker & Ryan (1990).

This study fills one part of the existing gap through a simpler and less expensive approach: a retrospective study of two communities, one in Kenya and one in Tanzania. The focus on Africa complements the Walker & Ryan (1990) and Hayami & Kikuchi (1981) studies in Asia. Within Africa, Kenya and Tanzania are inviting candidates for such a study. As on other topics, Kenya and Tanzania provide a "natural experiment" of the impact of policy on rural development (Knight & Sabot 1990). Although there are some important differences in agricultural endowment, one can pick communities in which the agro-ecology is almost identical. Agricultural and macro policies, in contrast, have been widely divergent in the two countries. Thus, similar endowments and similar exogenous shocks since independence help to separate the effects of differences in policy from other effects.

In a recent book, Lofchie (1989) attempts to assess the effects of differences in policy on the overall performance of the agricultural sectors in these two countries. Lofchie considers Kenya an "agricultural 'success story'" and Tanzania "a case of policy-induced agrarian decline."

We test this characterization in this study. To what extent are the generalizations made by Lofchie true at the local level? To what extent are his conclusions determined by differences between the countries unrelated to agricultural policy? Focusing on two communities with similar endowments allows us to test in some way these broad conclusions.

This study is organized as follows. The first part of the book, beginning with the next chapter, examines the methodological approach we employ: a retrospective village study. Chapter 3 then provides a summary description of the two coffee-growing communities sampled by our study, Kirua in Kilimanjaro Region, Tanzania and Kariua/Gacharage in Murang'a District, Kenya.

Part II, The Rural Economy, consisting of Chapters 4 through 9, presents considerable descriptive information about the villages, in several places examining to what extent households in one village are better off than the other village. Chapter 4, by Peter Kimuyu, examines income, expenditure, and assets in the communities. Kimuyu finds that incomes and our preferred proxy for income, expenditures, are both considerably higher in Gacharage than in Kirua, although income inequality is greater in the Kenyan village. The poorest households in terms of expenditures, however, are from Kirua. Fifteen percent of the Tanzanian households and only five percent of the Kenyan households are under a food poverty line we construct. Furthermore, analysis of asset holdings over time shows that asset holdings have increased substantially between 1974 and 1991 in Kenya, with considerable movement among households in rank; Tanzania shows similar movements among households, but overall declining asset levels during the time period.

Chapter 5, on Health and Nutrition, by Thomas Pinckney, contrasts with Kimuyu's analysis in Chapter 4. On every health and nutrition indicator, households in Tanzania are at least as well off and, on many, better off than their Kenyan counterparts, despite the differences in income between the villages. Households spend more money on health care in Kenya, and visit clinics more frequently, but morbidity, mortality, and child anthropometrics are all superior or no different in the Tanzanian community. Regression analysis of the anthropometry data provides some insight into understanding why different children are better off than others, in particular revealing that the main difference between the communities is for female children. This difference, however, is unexplained by the regression. Pinckney tests seven hypotheses for the difference using whatever data are available; although the results are not definitive, he concludes that health policy differences are not the determining factor here, although that determining factor remains a mystery.

In Chapter 6, Kimuyu and Wilbald Maro describe household labor arrangements and labor markets in the two communities. A large number of male household members particularly in Kenya participate in formal labor markets; this is the first of several pieces of evidence that these household are tied closely to the rest of the economy. Labor markets for agriculture are active in both communities, albeit more important for both buying and selling labor in Kenya. The authors find that the labor market works to offset discrepancies in land/labor ratios, contrary to the finding of Bevan, Collier, & Gunning (1989) in an earlier survey. Nevertheless, factor ratios of labor used to land operated remain widely disparate; the market, while helpful in improving efficiency, is far from perfect, and seems to be farther from perfect in Tanzania.

Maro examines labor markets outside the villages in Chapter 7, looking at the labor market history of migrants who have returned to the village, and the work arrangements of family members who were non-resident at the time of our survey. He finds that the theorized pattern of a permanent move from rural to urban areas rarely holds. Almost half of the Kenyan adult males between 30 and 70 had spent some part of their life living and working elsewhere; the corresponding figure in Tanzania is about one-sixth. In both villages, most of these men returned to the village voluntarily rather than because of an unexpected loss of a job. Similarly, household members expect the majority of today's non-resident males to return to the village. Remittances from migrants are quite high, particularly in Kenya. Links between the villages and the rest of the economy are thus strong.

In Chapter 8, Kimuyu examines credit and financial markets. There are virtually no long-term loans held by households in our sample; the few exceptions in Kenya show the problems with this type of credit for these households. Seasonal credit is available in both villages through the coffee cooperative societies; in Tanzania, this credit is only supplied by in-kind inputs into coffee production, mainly chemicals for spraying. In Kenya, farmers are able to borrow cash, food, or inputs into non-coffee agriculture using their future coffee crop as collateral. Considerably larger amounts of credit are available through these societies to Kenyan households. Other sources of credit, such as through informal arrangements and rotating savings and credit associations, are widespread, but usually for only small amounts of money. Their are no professional money-lenders in these villages. Informal credit is never lent for interest. The one type of “credit” which is quite large in both communities but especially large in Tanzania is outstanding debts related to the bride price. These obligations amount to several times per capita annual income for many households. These obligations, however, seem to act more like insurance for meeting consumption needs in desperate times rather than credit for long run investments.

Sandeep Patel, Pinckney, and William Jaeger examine the villages through very different eyeglasses in Chapter 9. Here they test to see if the popular prediction of a woodfuel crisis is beginning to take place in these high population density areas. They show through budget analysis that tree planting is competitive with maize in Gacharage, and that farmers are responsive to incentives to plant trees. These incentives vary across households facing different factor availabilities and market opportunities. The existence of a persistent fuelwood "gap," and the notion that population pressures and subdivision will lead to declining tree cover, are not supported by the analysis. A simulation model indicates that as land continues to be subdivided tree cover may actually rise, a result consistent with other evidence of an "environmental Kuznets curve."

Part III, Policy and Rural Development, looks more explicitly at policies that are alleged to have made a difference in rural areas, and checks to see if they live up to their promise. In Chapter 10, Pinckney and Kimuyu examine the divergent land policies in Kenya and Tanzania. Theoretical arguments lead to the conclusion that there should be more land-secured credit, more investment, a more active land market, and more inequality of land in the Kenyan community, which is under freehold tenure, compared to the Tanzanian community, where the state formally owns and allocates the land. For our communities, none of these conclusions hold. There is virtually no land-secured credit in either community; the land markets behave similarly in the two communities; and while inequality of landholding has been increasing somewhat more rapidly in the Kenyan community, the authors show that this does *not* arise from land sales and purchases. Despite large differences in policy, land markets in the two communities function in the same manner; Kenyans do not have *de facto* freehold tenure. While surprising to many readers, these results are in broad agreement with other studies conducted in Africa in recent years that indicate that indigenous land tenure arrangements provide considerable security for investment and continue to have strong impacts on land markets even when they are no longer in effect according to the law.

Pinckney, Wanje Reweta, and Maro look at policies toward dairy development in Chapter 11. Kenya made early investments in improving herd quality and increasing incentives for farmers to invest in dairy through providing artificial insemination services, curative veterinary services, and disease prevention services. In addition, opportunities for marketing milk spread rapidly through Central Province after independence. Meanwhile, Tanzania was pursuing a strategy that emphasized large state farms and village-wide ownership of livestock herds. The authors estimate that milk production per household was six times higher in the Kenyan community in the late 1960's, and has remained that much higher since. Tanzania modified its policy stance in 1983, leading to large improvements in the genetic potential of the herd. Without access to milk marketing agents, however, farmers have gained hardly at all so far from these improvements. Kenya, on the other hand, witnessed in the 1980's a decline in the quality of livestock services and milk marketing arrangements, while overinvesting in genetic upgrades. Nevertheless, the early Kenyan investments have paid off handsomely, and while Tanzania has made great strides in the last few years, Kirua is still paying the price for poor dairy policies through 1983.

Chapter 12 analyzes the impact of education on productivity, asking whether the significantly larger investments Kenya has made in education have led to improvements in agricultural productivity. Both countries, but especially Kenya, have seen rapid increases in the educational level of the rural population. Many analysts believe that education improves agricultural productivity, but the studies on which this conclusion is based come almost exclusively from Asia and could confuse the benefits of education with better reasoning ability. In this study, even after controlling for differences in reasoning ability, the authors find that basic literacy and numeracy skills increase agricultural output by almost 30% in both communities, holding other inputs constant. This is much larger than the contribution of education found in other studies. Returns to knowledge more advanced than basic numeracy and literacy, however, are of no additional importance for agricultural productivity. Thus, primary education has been quite important to agriculture, but investments in secondary education -- in which Kenya has invested extraordinarily more than Tanzania -- cannot be justified by their direct impact on agricultural productivity. This is so even though farming in these coffee/dairy areas is a complex task with a changing technology.

Kimuyu concludes Part III of the report by looking at five Kenyan households, detailing how they came to their present status, and providing us with insights into the ways that policy affects or fails to affect individual lives. This chapter shifts the focus back to individuals in the rural areas; they, after all, are the ones who must live with the policies implemented by their governments.

Section IV and Chapter 14 conclude the report, by drawing on all the chapters to answer the questions raised above. Policies have run the gamut in each country from detrimental to beneficial, while others have been substantially ignored. Incomes apparently have grown somewhat more rapidly in the Kenyan village; policy differences may very well account for 0.9 percent per year larger growth in income per adult equivalent. The fact that this differential in growth rates has not led to substantially better health and nutrition outcomes may result from lags in the process of learning to convert income to those desired outcomes. Policies that have made a difference have been those that worked with rural people, helping them to build and manage institutions that are clearly serving their interests. Rural residents have ignored and defeated other attempts by government to control their lives in ways that they do not find in their interest. These villages are active players in the development game

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