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SOME CHARACTERISTICS OF PRO-POOR GROWTH, AND POLICY IMPLICATIONS FOR MOZAMBIQUE

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INTRODUCTION: Nearly all growth benefits the poor, but some types of growth benefit the poor much more than other types (Bruno et al. 1998, Timmer 1997, Datt and Ravallion 1998, Timmer 1996, Ravallion and Huppi 1989, Ravallion and Chen 1989). As a result, the choices that governments make in pursuing economic growth matter a great deal to the impact of any resulting growth on poverty. This short paper first identifies several key characteristics of pro-poor growth, and then briefly discusses the direct and indirect contributions of growth to poverty reduction. Finally, it suggests the types of strategies that are most likely to result in pro-poor growth in economies such as those found in much of Sub-Saharan Africa (SSA), with a special emphasis on Mozambique.

CHARACTERISTICS OF PRO-POOR GROWTH: Poverty throughout the world is an overwhelmingly rural phenomenon (De Janvry et al. 2000, World Bank 2000). In comparing SSA to Asia and Latin America, the rates of rural landlessness are much lower, and agriculture's importance in total household income is much higher in SSA[2]. As a result, for growth in SSA to be pro-poor, it must **increase the productivity and profitability of some significant portion of smallholder agriculture**. Since the poorest of the poor are always and everywhere the most difficult (costly) to reach with technological innovations, this direct effect of growth will often be concentrated among the top half or top one-third of smallholders. Much evidence shows that such farmers will re-spend a large proportion of their earnings in the local economy (Haggblade, Hazell, and Brown 1989; Dengo 1992). In low income countries (much of SSA), much of this re-spending will be on agricultural non-tradables such as fruits and vegetables, tubers, locally processed oilseeds, and even grains if transaction costs are high (Mellor 2000). Such re-spending will lead to increases in local production of these non-tradables and further rounds of poverty reduction (Delgado et al., 1998). A significant but probably smaller portion of the re-spending in low income countries will be on local services and small-scale manufactures. This non-farm re-spending will fuel growth in the rural micro-enterprise sector, which tends to be very small-scale and labor intensive (Benfica 1997, Liedholm and Mead 1993). In middle income countries (Latin America, much of Asia), this non-farm effect of agricultural growth will tend to be more important than the second round agricultural effects identified above.

Agricultural labor is the most frequent source of wage labor income in most rural areas of SSA, and this sector of the rural labor market is dominated by smallholders hiring labor to complement their own family labor. In Mozambique in 1998, over 60% of all farm household members obtaining wage labor income did so on smallholder farms; only 10% did so on large commercial farms. This structural characteristic of the rural economy in much of SSA suggests that, for growth to be pro-poor, it must **increase the demand for agricultural labor among those smallholders experiencing increased productivity and profitability**. Evidence shows that this labor will come almost entirely from neighboring smallholders, probably those with less land or those who, for other reasons, have low incomes (Tschirley and Benfica 2001, Reardon 1997, Reardon et al. 1999, Haggblade et al. 1989). This **farm employment effect** of agricultural growth on poverty reduction will be relatively more important in low income countries whose economies are

[1] The opinions expressed here are the entire responsibility of the Policy Analysis Department and do not reflect the official position of the Ministry of Agriculture and Rural Development.

[2] Off-farm income shares in SSA typically range from 15% to 40% (Reardon 1997; Reardon et al. 1999; De Janvry et al. 2000).

relatively more dominated by agriculture than are those of middle income countries.

A key characteristic of any growth is adding value to local raw materials or primary agricultural commodities. Since most poverty is rural, poverty will be reduced more if this value added is created in rural, as opposed to urban, areas. Thus, **pro-poor growth increases the local processing of agricultural products, both for local sale and for export**. This processing will directly reduce poverty by increasing wage labor opportunities in rural areas. The indirect effects will likely be even greater, especially over time. By creating foci of concentrated demand for local agricultural products, this processing will:

- **Create more reliable markets for smallholder output**. A reliable market outlet will increase smallholders' willingness to invest in the crop. If other supporting conditions obtain (competitive prices, research and extension assistance, public investments to reduce marketing costs), this increased investment by smallholders will lead to increased productivity and profitability and to the related effects described above.

- Depending on the crop, it will also **create the possibility of outgrower (contract farming) relationships** between the processor and smallholder farmers. This relationship will often include interlinked transactions which improve the delivery of inputs to further increase productivity. Such relationships are most likely to emerge for crops which require industrial processing and which, for this reason, have fewer and better capitalized buyers. Examples for Mozambique include cotton, tobacco, and oilseeds, as opposed to maize; the latter may or may not be processed industrially and thus has many more buyers.

- It also **creates an environment in which quality will "matter"** (especially if the processed commodity is exported), and in which the required resources may be mobilized to improve quality - an improved system of grades and standards, plus the vertical coordination needed to ensure high standards. Improved quality will lead to sustainable increases in the prices paid to farmers (as opposed to unsustainable price increases through government subsidies), and thus may be one of the most important manners to increase the profitability of smallholder agriculture without incurring unsustainable government budget deficits.

DIRECT VS. INDIRECT EFFECTS: From the previous discussion, we identified two direct effects of pro-poor growth on poverty reduction: 1) increased productivity and profitability of smallholder agriculture, and 2) increased employment in agro-processing. Indirect effects included 1) the second-round agricultural effect from re-spending on agricultural non-tradables, 2) the non-farm effect from re-spending on local services and manufactures, 3) the farm employment effect from increased demand for labor among those smallholders experiencing increased productivity and profitability, and 4) the set of three second-round effects from rural agro-processing. A key question for policy makers regards the probable magnitude of the indirect effects; if these can be expected to be large, then a growth strategy need not focus directly or exclusively on the poor to be pro-poor. When analyzed in an accounting framework which recognizes that resources for poverty reduction (as for any other government objective) are limited and that directly reaching the poor is generally much more costly than reaching the less poor, a growth strategy which emphasizes indirect effects on poverty reduction may be preferable to one which attempts to maximize direct effects, even when judged strictly from the standpoint of poverty reduction.

Whether this conclusion is warranted - whether the indirect effects are sufficiently large relative to the direct effects - depends on the structure of the economy in which the growth is occurring. Generally speaking, indirect effects will be larger when land is distributed unequally, and when poor rural households depend on the rural non-farm economy for large proportions of their income. In aggregate terms, land in SSA is distributed less unequally than it is in Latin America, and poor rural households in SSA depend less on the non-farm economy than do their compatriots in Latin America and Asia. As a result, indirect effects will generally be lower in SSA than in other areas of the world, implying that "in Africa, designing technological change for small farmers ... and assisting their diffusion ... through rural development interventions

are thus key to aggregate poverty reduction." (De Janvry et al., 2000).

This conclusion, however, must be tempered in two ways. First, "small farmers" in SSA are much more heterogeneous than is commonly realized (Marrule, et al. 1998, Tschirley and Weber 1994, Jayne et al. 2002). For example, *per capita* land holdings among the largest 25% of smallholders in Ethiopia, Rwanda, Mozambique and Zambia are about 10 times those of the smallest 25%; in Kenya, the largest 25% of smallholders have 27 times as much land *per capita* as the smallest 25%. Household income and integration into the market economy in all these countries is highly correlated with land holdings. These patterns suggest the existence in rural SSA of a subset of smallholders who are substantially better-off and who may be much more likely to adopt new technologies than their poorest neighbors. Evidence from Zambia shows that better-off smallholders self-finance fertilizer purchases for maize even in the absence of the large subsidies previously provided by government (FSRP 2000). The question for policy makers in SSA thus becomes more specific than that suggested by De Janvry: what group among smallholders should be the focus of direct efforts at poverty reduction through technological change?

The relative emphasis on direct vs indirect approaches must also be informed by the cost of effecting technological change among the poorest households. Since this cost is typically much greater than it is among the less poor[3], rational policy makers attempting to reduce poverty in the face of a budget constraint will rely more on indirect effects than they would if costs were equivalent.

POLICY IMPLICATIONS: The great variation in the structure of rural economies, even within SSA, means that pro-poor growth strategies, and especially the relative reliance on direct vs indirect approaches, need to be adapted to each country's specific setting. This adaptation should take place, however, within a set of general principles which emerge clearly from the research summarized above. This final section lists these principles and offers some suggestions for how they apply in the case of Mozambique.

Liberalize the Economy. It is imperative that the private sector believe its profit seeking investments will not be undercut by arbitrary and excessive regulations, or by unfair competition from firms with state subsidies. Mozambique has been notably more committed to liberalization than many of its regional neighbors, with positive results. Yet continued efforts are needed to ensure that local practice (at the provincial and district levels) is consistent with the generally open economic policies of the central government.

Invest in research and extension to **increase the productivity and profitability of agriculture among some portion of the smallholder sector**. For reasons discussed above, this direct effect is likely to be most concentrated among the relatively less poor. But in an economy such as Mozambique's, even the top one-third of smallholders is poor by any reasonable standard. Increasing their productivity will directly decrease poverty among this group, and will decrease poverty among the other 2/3 of smallholders through the indirect effects explained above.

Whenever possible, **favor labor intensive production technologies**, as this will increase the indirect effects of increased smallholder productivity. Cotton is a labor intensive crop, and some companies have recently begun providing cash credit for growers to hire weeding labor. This suggests that there is a pool of rural labor available if effective demand exists to mobilize it.

Encourage investment in rural processing of agricultural commodities. Whenever possible,

- favor labor intensive as opposed to capital intensive technologies,
- favor rural over urban locations for the processing plants, and
- favor crops which can be produced by the smallholder sector.

The best example in Mozambique is cashew processing, where labor intensive Indian technologies located in production areas will have a greater impact on poverty reduction than will the more capital

[3] This is due in part to the often greater difficulty of physically reaching the poor with technology messages, but probably more importantly due to the lesser ability of the poorest households to make the adjustments and bear the risks needed to adopt new technologies.

intensive Ultramer technology located in urban areas. Sugar processing in Mozambique reduces poverty by providing rural employment, but it is produced almost entirely in large plantations rather than by smallholders. Research should focus on ways, including fiscal policy, to increase the attractiveness to the processing companies of relying on smallholder production. Processing of oilseeds has increased substantially in recent years, through a combination of very small-scale hand presses, recent investments in medium-scale processing, and increased activity by existing large-scale processors.

Maize processing has also increased substantially, especially in the south for production of animal feed. To date, however, the poor quality of local grain has lead all but the smallest processors in the south to import their grain from South Africa. A large new maize mill in Nampula has ambitious plans, but is also concerned about grain quality. Government should concentrate on providing key assistance to the private sector so that the presence of this large new buyer/processor can create a process of gradually improving grain quality. Such improvements would generate wide-ranging benefits for producers by opening-up more export markets and making northern grain competitive in the south with South African grain as transport costs come down. The size of the small-scale maize milling sector (using hammer mills) is not known, but anecdotal evidence suggests that it has grown rapidly and that many rural women are willing to spend money and time to have their grain processed in such a mill. Being small scale, labor intensive, and more easily located in rural areas, this technology can be effective in generating local growth linkages. Pigeon pea and rice also hold promise for poverty reduction through smallholder production and sale to processors.

Where appropriate, encourage agro-processing firms to develop contract farming relations with smallholder suppliers. Linking financial capital with smallholder farmers in this way can be one of the most effective ways to reduce poverty over time in rural areas. Fiscal policies, including making tariffs on imported machinery and production inputs a decreasing function of the level of support provided to smallholders, may be one means of encouraging more active outreach by processing firms to smallholders.

Cotton is produced almost entirely under contract farming arrangements between large companies and small farmers. This arrangement has been very successful in stimulating rural income growth and poverty reduction, but now faces serious problems in terms of the quality of assistance offered by companies. Government policy in this crop should focus on achieving a better balance between competition and coordination, in order to better safeguard the interests of farmers. Facilitation of the empowerment of farmer associations to reduce their dependency from cotton companies and increase their negotiating power to allow for increased direct benefits should be one key pillar in this effort.

Tobacco production has grown dramatically in recent years under contract farming arrangements. Mozambique needs to learn from the cotton experience in order to maintain a balance between the competition needed to protect farmer interests and the coordination needed to facilitate private sector investment in input provision and extension.

Sugar cane is predominantly produced under plantation agriculture in most of the world, including Mozambique, due to specific characteristics of the crop. Yet contract farming schemes involving large numbers of small farmers have been successful complements to estate production in countries like Kenya and Swaziland. Where feasible, government should consider strategic actions to facilitate smallholder access to irrigable land near sugar processing plants, and should also consider financing needed extension assistance to these farmers. If done in collaboration with sugar companies, such actions would create win-win situations for companies and small farmers.

Tea is another crop which, while most often produced in plantations, also has a track record of successful smallholder production under contract farming arrangements. In Mozambique, most of the value of recent investment in tea has occurred under contract farming arrangements, not plantations (Benfica and Tschirley, 2002). Whenever possible, these arrangements should continue to be favored over plantation investments.

Other crops which may lend themselves to contract farming under the proper circumstances include oilseeds, vegetables, and pigeon pea for export.

Concentrate investments in transport infrastructure, especially feeder roads, in areas of high agricultural potential. These areas will

typically have greater population densities than low potential areas, and, despite lower rates of poverty, will have a greater number of poor than will the less densely populated low potential zones (Grosh and Baker 1995, Glewwe and Kanaan 1989). Also, the cost reductions which these investments create will induce a greater supply response in high potential zones, which should attract increased agro-industrial investment - a key contributor to rural poverty reduction. Finally, the greater population density in these areas creates more possibility of mobilizing significant local resources to finance maintenance costs.

Link these high potential areas to low potential areas with investments in trunk roads. Such linkages will help surplus food production reach low potential deficit areas, thus improving availability, reducing mean prices, and especially reducing hungry season price spikes in these areas. These investments will also decrease the cost of seasonal migration out of low potential areas to work in the emerging commercial agriculture and related processing industries of the high potential zones; such seasonal migration has long been a key income and survival strategy of households in low potential areas.

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