

Discussion Paper 80

Nontraditional Crops and Land Accumulation Among Guatemalan Smallholders: Is the Impact Sustainable?

Calogero Carletto

Since the late 1970s dramatic economic changes have taken place in the highlands of Guatemala. The introduction of new export crops, such as snow peas, broccoli, and miniature vegetables, has led to yet another agro-export boom. Unlike earlier booms, however, this one has included all but the smallest farmers. The high rate of smallholder participation in the boom, and the initial high profitability of nontraditional exports (NTXs), fueled initial optimism that NTX production could increase smallholders' ability to accumulate land and so decrease the highly skewed distribution of land in Guatemala, a country with one of the most unequal landholding patterns in all of Latin America.

This paper asks if indeed smallholders, following the adoption of NTXs, have been able to acquire more land on a sustainable basis and if a more equitable land distribution has resulted from this process. The research findings contribute to the debate about the impact of export crop production on smallholder agriculture in the rural Guatemalan highlands in general and, more specifically, on long-term land accumulation patterns.

Adoption of Nontraditional Export Crops in the Survey Area

Most households in the highlands own very small plots of land: the average plot size in the study sample is 0.7 hectare. Previous research suggests that controlling only a small amount of farmland can indeed have its advantages when it comes to NTX production. Because smallholders often rely on family labor, they are able to reduce the moral hazard problems and supervision costs associated with hired labor that larger farmers depend upon. These diseconomies of scale may account for the high rate of NTX crop adoption among Guatemalan smallholders.

The systematic promotion of NTX production in the Guatemalan highlands began as part of the process of recovery from the earthquake that devastated the area in 1976. In 1979, multilateral institutions helped launch *Cuatro Pinos*, an agricultural cooperative that promoted NTX crop adoption by providing its members with access to credit and technical assistance. A large majority of smallholders in the area, both inside and outside the cooperative, adopted NTX

crops, regardless of farm size. Virtually everyone, however, kept allocating the vast proportion of their land to *milpa*, the traditional subsistence cultivation consisting of intercropping of maize and beans.

Because of the higher profitability of NTX crops, smallholder demand for better quality land increased in the 1980s. The resulting pressure on land prices should have induced non-adopters to sell their plots. But small peasants in the region appear to have placed a high value on the "extra" land they owned beyond the minimum required for subsistence production and, as a result, fewer land transactions than expected were recorded. Even smallholders among the adopters also appear to have hedged against food insecurity. Very few of them specialized in NTXs, even during the 1980s when the average profitability of NTX crops far exceeded that of subsistence and traditional crops. Some observers argue that imperfections in food markets may be causing non-adopters to hold onto their land and adopters to continue to devote a large portion of their farmland to subsistence crops. Because non-adopters have been unwilling to sell land, land sales that have been prompted by NTX production have occurred primarily through expansion of the agricultural frontier and utilization of poor quality land.

In recent years, NTX yields have dropped across all the communities surveyed. The emerging agronomic difficulties include a dramatic rise in pest problems, a build-up in pesticide resistance, and an acceleration of soil degradation due to growing pressure on scarce land resources. Increasingly costly input packages and the prohibitive cost of spot checks for pesticide residues have also reduced the profitability of NTX production. Greater price uncertainty and frequent temporary bans on imports of Guatemalan snow peas into the United States because

of pesticide residues have further handicapped NTX crop growers in the 1990s. Over time these problems appear to have offset the initial competitiveness exhibited by small farmers growing NTX crops in the 1980s and affected their

ability to accumulate assets such as land.

The analysis of land accumulation rates in this study is based on data collected in 1994 in collaboration with the Institute of Nutrition of Central America and Panama.

"The picture that emerges from the analysis raises serious questions about the sustainability and equity effects of nontraditional export crop adoption in the long run."

Six rural communities in the central highlands of Guatemala were surveyed. Recall information on annual land transactions from the year of household formation through 1994 was obtained to reconstruct each household's history of land accumulation. Complete household histories of NTX crop adoption were also collected.

Findings and Recommendations

In contrast to the optimism previous studies of the Guatemalan experience with NTXs have shown, this study provides empirical evidence of a rather distressing nature. The picture that emerges from the analysis raises serious questions about the sustainability and equity effects of NTX crop adoption among smallholders in the long run.

Two main findings illustrate the problems besetting NTX crop production. First, the land accumulation rates of adopters have dropped dramatically in the 1990s. NTX crop adopters accumulated close to three times more land than non-adopters in the 1980s. Although adopters are still accumulating more land than non-adopters in the 1990s, the gap between the two groups has narrowed substantially. Second, smaller adopters are no longer accumulating land at higher rates than their larger counterparts. In the 1980s the landholdings of smaller adopters grew significantly faster than those of the larger adopters, but this trend reversed itself in the 1990s. The advantages smallholders initially had in accumulating land may have been lost as a result of deteriorating agronomic conditions and volatile export markets.

In view of Guatemala's past experiences with highly exclusionary export booms, these findings raise concerns that the production of export crops is again promoting concentration in land accumulation over time. Smaller adopters appear to be at a disadvantage when it comes to accumulating wealth from NTX production. On the basis of this evidence, the use of NTXs as an instrument of rural development should be treated with caution.

Experts have argued that input-intensive NTXs in developing countries encourage rural development through a more efficient use of locally available resources, namely land and labor. Paradoxically, the crisis affecting NTXs in the 1990s appears to be a direct consequence of the overexploitation of these very resources. In the period preceding the introduction of NTXs, the vast majority of households had already burdened themselves with a high volume of indispensable tasks and burdened their inadequate land base with heavy cultivation of subsistence and traditional crops. In many instances, NTX crop adoption put additional strain on limited household resources.

To avoid the pitfalls of NTX adoption, a successful and sustainable policy would help maintain well-functioning food markets and provide crop insurance, consumption credit, and other risk-coping instruments. Such measures would ultimately reduce pressure on scarce land resources and limit the likelihood of the crises witnessed in the 1990s.

The problems associated with this latest agro-export boom seem to have occurred because NTX crops were disseminated indiscriminately, regardless of their suitability for individual farmers. Policymakers have an obvious choice. They can either accept the fact that NTXs may not be suited to small farmers and focus instead on a group of participants more likely to benefit from NTX crops; or, alternatively, they can provide small farmers with more adequate support in the form of crop insurance and access to credit and information. Given adequate policy support, smallholders could indeed improve their socioeconomic position through cultivation of NTX crops and still prove to be viable economic agents in the country's lucrative export market.

Keywords: landholdings, smallholders, cash crops, Guatemala

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2033 K Street, N.W.
Washington, D.C. 20006 U.S.A.

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