

**THE VARYING IMPACT OF STRUCTURAL ADJUSTMENT
ON NICARAGUA'S SMALL FARMERS***

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ABSTRACT

In 1990 the Nicaraguan government initiated an orthodox program of structural adjustment, thus joining with most of Latin America in embarking upon neoliberal-type reforms. This paper analyzes the adjustment's impact on small farmers, especially vis-a-vis their access to productive resources and their living standards. It explores the survival strategies, and the organizational efforts, they adopted in an effort to ameliorate its effects. The paper is based on interviews conducted with peasants in four rural municipalities, located in the central mountain and Pacific Coast regions. The principal finding was that the reform's impact differed according to the farmers' crops/products and their degree of organization; ranging from provoking economic devastation to stimulating new economic activity. Hence, Nicaragua's reinsertion into the international economy has brought economic hardship to many of its farmers and opportunities to the fortunate few who have

encountered favorable markets for their products and/or have become highly organized and thereby are shielded from some of its effects. Yet, their overall experience is comparable with findings from the rest of Latin America, which highlight the increasingly difficult circumstances of the rural poor within the context of neoliberalism.

In 1990 the new Nicaraguan government, led by Violeta Barrios de Chamorro, initiated a structural adjustment (SA) of the economy. In doing so, the Chamorro government brought Nicaragua into the fold of those countries - now representing almost the entire Latin American region - that had embarked upon the path of reforms that flowed out of neoliberal economic thought. As was true for the rest of these countries, the Nicaraguan government opted for this economic strategy in order to make it eligible for assistance from the international lending community. By the early- to mid-1980s, SA had become the sine quo non throughout Latin America for gaining legitimacy in the international economic community.

In conforming to the dictates of the IMF, the World Bank, and the IDB, as well as

those of the US government, the Nicaraguan government was taking a decisive step away from the state-led strategy of economic policy-making that had prevailed there in the 1980s. The comprehensive program of subsidies for small-scale producers - with their predominantly domestic orientation - and others from the poorer sectors of society had first been weakened in 1985, and then was more profoundly undercut with the Sandinistas' economic reform of 1988.¹ Yet, the set of policies implemented in 1990 constituted the wholesale adoption of a new "logic of the market."

With this major shift in government priorities, one of the populations that had benefitted the most from Sandinista-era policies - the rural poor - stood to lose significant ground. In the 1980s they had received land through the agrarian reform, and credit and technical assistance, as part of the overall effort to raise rural standards of living and increase domestic-crop production (their specialty). The new emphasis on export production that was central to the SA program, and the cutbacks in government spending in various areas that affected the rural poor, had the potential of reversing any gains they had made in their standard of living in the 1980s.² And, the importance placed on privatization suggested a calling into question of the recently-won land rights of a notable part of the peasantry.

With these concerns in mind, I undertook a study of the impact of the Chamorro government's economic policies on the country's small farmers. In addition to interviewing representatives of the Ministry of Agriculture, the National Development Bank (BANADES), a number of private banks, farmers' organizations, and NGOs, I conducted a survey of 60 small-scale producers.³ The survey was carried out in four rural municipalities: two in the Department of Matagalpa (which was chosen for having

been heavily affected by the war that was waged against the Sandinista government between 1982 and 1990, the contra war⁴) and two in the Department of Leon (which was chosen for having not been directly affected by the war). (See Map 1.) All four municipalities (Esquipulas and San Dionisio in Matagalpa; and Malpaisillo and Santa Rosa del Penon in Leon) were noted for the strong presence of small farmers in relation to the other municipalities in each department. Within each municipality, farmers were selected by snowball sample,⁵ with an eye to including people who received land through the Sandinista agrarian reform and people who had not. The interviews were conducted between June of 1996 and July of 1997, with the survey having been conducted between April and July of 1997.

Several patterns were revealed in the course of my study, which both confirmed and went beyond most of the existing literature on the impact of SA. Through the general interviews as well as the formal survey it became apparent that Nicaragua's small farmers have found their access to agricultural resources greatly reduced since 1990. However, the experiences of the small farmers I interviewed indicated that certain means have been found to ameliorate the potentially negative impact of SA. That is, the elimination of state subsidization of some key agricultural resources and the opening up of the economy to the international market had a varied impact on these farmers, in terms of their production and, consequently, their standard of living. I will argue that there were two crucial intervening variables in this equation: the specific product produced by farmers in each region; and the level of organization characterizing these small producers.

Prior to describing more fully the findings of this study, it is important to situate

these small farmers within the context of SA more generally, beginning with Latin America as a whole. Thus, the first section of the paper describes the impact of SA on the region=s peasantry, before going on to focus on the Nicaraguan case in particular. The paper=s second section details the changing access to land, credit, markets, and so forth, of the small farmers in my survey. The factors that explained the differences I found between farmers in the four municipalities are addressed in the third section. The paper then concludes with a discussion of the most noteworthy patterns that were found in this study, and their general implications.

Structural Adjustment in Latin America

Although SA was first imposed in the Latin American context after the 1973 coup in Chile, it was not until the 1980s that it became the predominant economic model throughout the region. By that time, bilateral and multilateral lenders had succeeded in bringing most of the area's leaders around to their perspective of the way Latin America's economies should be run. How had this occurred? What did the policy shift consist of? And, what did it mean in the Nicaraguan context?

The terrain for SA to gain the day was prepared by the economic crises that characterized most of the region's economies by the early- to mid-1980s.⁶ After several decades of impressive economic growth throughout the region, the boom in oil prices in 1973 triggered an economic shortfall in the area's oil importing countries. Then, with an influx of funds from the oil-producing countries, the multilateral lending agencies

stepped in to resolve the problems caused by the new, massive oil bills. However, by the early 1980s it was clear that many Latin American countries could not repay their foreign debts, which had mushroomed since 1973. Shortcomings in the economic model that had prevailed since the mid-1900s - Import Substitution Industrialization (ISI), deteriorating terms of trade, and a variety of other factors had contributed to this crisis.

In the face of the threat of Latin America's failure to pay its debt, the US and the multilateral lending community offered each of the debtors the possibility of debt restructuring and the provision of new funds. However, these were contingent upon the acceptance of major changes - in the form of stabilization and SA programs - in their economic policies. In some cases these changes were brought about by recently-installed military regimes, as in Chile and Uruguay in the 1970s. In others, democratically elected governments opted for this course, as was the case in Mexico, Costa Rica, and Ecuador in the 1980s. Despite these regime-type differences, and the variations between the specific programs designed in each case, they bore a number of features in common: government austerity measures, trade liberalization, currency devaluation, and privatization (Conroy, et al., 1996). Their stated objective was to foster economic recovery, while their immediate one was to insure that these nations paid back their debts. Attainment of this latter objective would be facilitated by increased exports.

But what exactly did the implementation of SA mean for agricultural production? Each of the features central to SA had an impact on agriculture. The first, government austerity, typically took the form of cutbacks in government spending for agricultural

credit, technical assistance and other programs that had often formed part of the ISI approach to modernizing agricultural production and agrarian relations. To the extent that these resources were still available, they would be directed at export producers.

Trade liberalization translated into the opening up of borders for increased trade, with an eye to promoting products that could - through this test of sorts - demonstrate a clear comparative advantage. Because these countries' historic comparative advantage tended to be concentrated in primary products - and especially in agricultural ones - it was assumed that it was in this sector that production had to grow and exports expand.⁷ However, given deteriorating terms of trade for some of the region's traditional export crops, new agricultural products were sought to fulfill this function. This effort coincided with a dramatic expansion in the globalized market for fruits and vegetables.⁸ And, in turn, trade liberalization facilitated the entry of southern countries into this market.

At the same time, SA-induced currency devaluations were designed to promote export production and to force producers to be more efficient in their use of now-more-costly imported inputs. And, finally, privatization was supposed to eliminate what were perceived as unprofitable state enterprises, opening up new opportunities to the private sector at the same time as reducing the state's budget deficit.

What has been the effect of these measures on agricultural production in general, and that of small farmers in particular? Looking at Latin America as a whole, and agriculture in general, Weeks (1995) found that there was no evidence to support the argument that liberalization of the economy - through SA - led to increased

production any more than nonliberalization of the economy did. Moreover, even in the area of export agriculture, there was no indication that those countries that had liberalized their economies had surged ahead of the remainder of the region in their production levels (Ibid; see also Weeks, 1999). Conroy et al. (1996:22) and Barham et al. (1992) found that Central America's production of non-traditional agricultural exports (NTAEs) definitely underwent an expansion.⁹ Yet, in terms of overall exports from these countries, NTAEs still represented a very small proportion (7% at the end of the 1980s).¹⁰ Moreover, Conroy et al. (1996) document the extent to which the spread of SA programs in Central America in the 1980s coincided with a dramatic drop in basic grains production (especially beans).¹¹

For small farmers the results of SA have been somewhat mixed. In a series of publications analyzing the impact of the agro-export booms that have come with SA in Latin America, Carter and Barham (1996; see also Carter et al., 1996), argue that free market economic policies tend to reproduce or even aggravate inequalities in the countryside.¹² Where small farmers are already disadvantaged vis-a-vis agricultural resources prior to economic liberalization - as is the case throughout most of Latin America - typically it is the larger farmers who are most able to participate in the agricultural growth that occurs, due to their privileged access to these resources.

Conroy et al. (1996) take an even stronger stance in arguing that the Central American experience underlines the numerous negative effects of the spread of [non-traditional] agro-export production promoted by SA. These include the complete undercutting of the market for the products traditionally grown by small farmers - basic grains. This has resulted from the emphasis that has been placed on importing food,

especially through aid programs, that has coincided with export crop promotion.

Imported food brought down prices for these goods in local markets, thereby benefiting urban consumers. But, local farmers have found it difficult, if not impossible, to compete with food aid (see also Gwynne, and Kay, 1997).

The remaining alternative for small farmers is export crop production. Yet, as argued by Carter and Barham (1996), small farmers do not have the same degree of access as large farmers to the resources - credit, technical assistance and so forth - needed to compete successfully in the production of these new export crops.¹³

Moreover, they do not have the safety-net that large farmers have when their crop encounters the selective protectionism of NTAE purchasers or fails for other reasons.¹⁴

Thus, whether small farmers have stayed wedded to basic grain production, or have attempted to move into NTAE production, their success has been limited. Increased rural poverty has frequently been the outcome of these changes.¹⁵

Nicaragua=s Structural Adjustment

The SA programs analyzed by the above mentioned authors were initiated prior to that of Nicaragua. For most of its tenure (1979-1990), the Sandinista government followed a development strategy at great odds from that proposed by the proponents of SA. But, by the late 1980s it, too, switched course and imposed an economic reform in an attempt to get some control over run-away inflation, and a mushrooming national deficit and foreign debt.¹⁶ In 1990, however, with the inauguration of the Chamorro government, SA was fully embraced. Thus, the context into which SA was introduced in Nicaragua was somewhat unique in that it followed on the heels of a period of heavy

state intervention in the economy,¹⁷ as well as a highly destructive war. Rather than describing Nicaragua's entire SA program, what follows is a discussion of the components that directly affect agriculture - and particularly small producers - there.¹⁸

Following the path of orthodox SA programs, the Nicaraguan government's program contained all of the features mentioned above. The government's austerity measures affected various parts of its budget - leading to massive layoffs of government employees, and major cuts in social services,¹⁹ both of which had an impact on the rural sector.

They also brought about a significant drop in credit destined for agricultural production: agricultural credit in 1995/96 was 51.5 percent of what it had been in 1991/92 and the area financed in 1995/96 was only 28.9 percent of what it had been in 1991/92 (calculated from Jonakin and Enriquez, 1999: Table 1). Yet, this drop off was not implemented across the board in agriculture. True to the objectives of SA, export production was prioritized. While financing for coffee acreage (Nicaragua's most important export crop) in 1995/96 was 46.3 percent of what it had been in 1991/92, financing for bean and corn acreage (the country's two key food crops) in 1995/96 was 7 and 6 percent, respectively, of what it had been in 1991/92 (calculated from Ibid., Table 2). And, producers did not bear the burden of this cut equally: small- and medium-sized producers, who had received 56 percent of agricultural credit in 1990, only received 29 percent in 1992, while the share of credit given to large producers grew from 31 to 71 percent during this same period (Acevedo Vogl, 1993: 112).

Government austerity measures also translated into a general cutback in BANADES' operations, making it ever more difficult for small farmers to gain access to

its services. Between 1989 and 1993, over sixty percent of BANADES' branch offices were closed (c.f. Jonakin and Enriquez, 1999:9). Further cuts were made between 1994 and 1997. And, finally, in early 1998 BANADES closed its doors completely, leaving small farmers entirely excluded from state-sponsored credit.

Another agricultural resource that was essentially eliminated with the austerity measures that formed part of the Chamorro government's SA was technical assistance. Prior to the 1980s this resource had only been available to those who could pay for it. Under the Sandinista government, it was considered part and parcel of agrarian reform and agricultural development efforts. As such, its availability - free of charge - expanded dramatically. However, with the implementation of SA in 1990, technical assistance reverted to being a resource whose use was limited primarily to large producers who could pay for it.

A second key feature of standard SA programs, trade liberalization, was also implemented as part of that country's program. According to Stahler-Sholk (1997: 90), "the average nominal tariff protection was slashed from 43 per cent in 1990 to 15 per cent in 1992." At the same time, the adjustment program eliminated the state monopoly on grain trading. This, combined with significant grain imports, led to falling producer prices for domestically-oriented production. As per usual, the goal was to promote export production. Yet, it was not until 1994/95, and then principally due to the freeze which affected Brazil's coffee crop and pushed prices for this commodity upward, that the value of exports began to grow.²⁰ As was true elsewhere in the region, non-traditional exports were to play a major role in the post-1990 export sector, and, in fact, exports of such products grew in the early 1990s. However, with credit and technical

assistance basically unavailable to small producers, they were essentially cut out of this boom sector.

A series of large currency devaluations also composed part of the government's SA program. This, too, had as a goal promoting increases in export production. In an effort to reinforce its effects on export production, the potentially negative consequences of more expensive imported inputs were mitigated by a new export promotion law which gave import duty and sales tax exemptions to exporters - and income tax exemptions for exporters of non-traditional commodities. Thus, domestic crops and their producers, were further discriminated against.

Finally, privatization of state-owned industries and farms was also central to the SA program. In the early 1980s, the state farms - that had been formed through the confiscation of Somoza and his close associate's land - had represented about 20 percent of rural property, but by the late 1980s this had dropped to closer to 10 percent (Enriquez, 1991: 93). As the privatization process got underway, popular pressure forced the inclusion of state farm workers into the pool of recipients. A potentially greyer area was what the privatization process would mean for members of cooperatives that had formed on land affected by the agrarian reform. Great insecurity was generated within this sector as a consequence. Ultimately, most of the land distributed to cooperatives remained in their hands, but the threat implied in this measure contributed to the massive decollectivization that characterized the sector during the first half of the 1990s (Jonakin, 1996).

In sum, at an aggregate level, it is clear that the Chamorro government's SA program - through all of its component parts - had a significant impact on the

agricultural sector. The national level data, which parallels that describing much of the rest of Latin America, suggests that its effects have been largely negative for small farmers. As with the rest of Latin America, an increase in rural poverty in Nicaragua has coincided with the implementation of SA. Arana and Rocha (1998: 625) calculate that relative rural poverty rose from 59.3 percent in 1985 to 88.7 percent in 1993, and extreme rural poverty from 24.6 percent to 52.8 percent between 1985 and 1993.²¹

However, the panorama for Nicaragua's small farmers is not entirely bleak. Circumstances have permitted some groups of them to take advantage of the changed economic environment to their benefit, and others have actively sought means by which to soften the blows SA has dealt them. The section that follows delineates the many effects of SA on small farmers in four of Nicaragua's rural municipalities. It also suggests several factors that have served to ameliorate SA's most troubling consequences.

Small Farmers in Post-1990 Nicaragua

As mentioned above, I chose to study the situation of small farmers in two departments which were noted for the extent to which they were or were not affected by the contra war. In many senses, the degree to which the SA impacted upon these farmers also varied between the two departments. In order to highlight these differences, the following discussion will be divided into two subsections, each focusing on a separate department.

Matagalpa

Although Matagalpa, as a department, was directly affected by the contra war

and Leon was not, Esquipulas and San Dionisio had been less hard hit than the more northern and eastern municipalities in the department. Armed bands (the "armados") continued to be a problem in some parts of these municipalities, and - when possible - even small farmers sought to move their families into the towns for reasons of personal security. Yet, by and large, farmers there were able to focus their attention on their agricultural production.

In Esquipulas the centerpiece of production for small farmers was the dairy industry. That is, they raised cattle for the dairy products they produced, selling some rustically produced cheese, but mostly milk. Basic grains and coffee were grown there to a lesser extent. In contrast, small farmers in San Dionisio concentrated on basic grain production. This municipality is more mountainous than Esquipulas, with many of its rural communities located at a significant distance from its roads. Thus, production there was restricted to those goods that were not so perishable as to be affected by its lack of infrastructure. Coffee production and cattle raising were some of the other agricultural activities farmers engaged in there.

Despite these differences, when compared to the municipalities studied in Leon, Esquipulas and San Dionisio shared some important commonalities. The small farmers interviewed in the Department of Matagalpa were notably better off than those from the Pacific Coast Department of Leon. This was evidenced in their access to agricultural resources, as well as by the indicators employed to shed light on changes in their standard of living following the shift of economic policies. For the most part, they appeared to be weathering the storm unleashed by the Chamorro government.

The vast majority of the small farmers interviewed in Matagalpa had secure

access to the land they farmed. In fact, most of them (93.3 percent in both Esquipulas and San Dionisio) owned the land they worked. They had obtained their land through a variety of means, with purchasing it being the most important among them (see further, Table 1).²²

But, whereas these farmers were relatively fortunate vis-a-vis their access to land, this was less true of their access to official credit after 1990.²³ In contrast to the pre-1990 period, when virtually all of them who had been farmers had attained credit through BANADES, in Esquipulas only 28.6 percent received credit in 1997 and in San Dionisio the same figure was 53.3 percent (see Table 1).²⁴ Of equal importance, only 1 of these 30 informants received credit from BANADES that year. NGOs were the only source of credit for the remainder of those who had been able to attain credit that year.

An additional resource that most of these small farmers received from the government prior to 1990, technical assistance, had become even harder for them to attain in the post-1990 period. In contrast to the 83-84 percent who received technical assistance in the past, only 21.4 percent of those interviewed in Esquipulas, and 46.7 percent of those interviewed in San Dionisio received it in 1997 (see Table 1).²⁵ And, whereas the government had provided this service in the past, none of those who were fortunate enough to receive it in the mid-1990s could look to the government for it. Instead, in almost all of the cases it was NGOs that now provided technical assistance.

Given the significant reduction in access to agricultural resources experienced by these farmers, it is important to assess its impact on their production (see Table 1). Perhaps the most noteworthy change that a larger number of them than might have

been expected had been able to bring about was that of increasing the size of their herd, or expanding their cultivated area, with the support of a loan from a NGO or state institution. Fifty percent from Esquipulas and 46.7 percent from San Dionisio had accomplished this. Of equal significance, several informants from each municipality had expanded their herd size or area under cultivation without any apparent source of outside assistance.

Another key indicator of the economic strength of their farms was the extent to which they could provide employment for these farmers and their families. While in neither of these two, northern municipalities were all of those interviewed employed full time on their farms, a notable number of them were. In Esquipulas those who worked full time on their farms represented 64.3 percent of the sample. In contrast, San Dionisio was characterized by fewer of the informants working full time on their farms - 46.7 percent.²⁶ As importantly, their farms also served as a source of employment for others. In Esquipulas 50 percent of these peasants had at least one son employed on their farm (the better part of their wives were housewives). In San Dionisio, 53.3 percent of their spouses worked at least part of the time on the farm, while the same percentage of farmers had sons working on the farm. In addition, work on most of the farms required the assistance of hired labor of either a temporary or permanent nature.²⁷ Thus, their farms were strong enough, economically-speaking, to sustain many of these peasants with farm-generated income alone, as well as to provide some family members and hired laborers with employment.

Several other indicators also point to the economic situation of these farmers, including the extent to which they had been able to make improvements on their farms

in the post-1990 period. Eighty percent of those interviewed in Esquipulas and 66.7 percent of those in San Dionisio had been able to do so (see Table 1). This was quite noteworthy given the difficult economic circumstances characterizing many sectors of the population at the time. Likewise, the majority of them had been able to purchase either farm animals or equipment after 1990.

Yet, some of the small farmers I interviewed were experiencing economic hardship. They relied upon various strategies in order to "get by," including working their farms more to generate additional income, looking for work off the farm, and taking out informal loans. But, even among those who felt that their economic situation was less than ideal, most were able to look to the farm as a solution to their problems.

Leon

The two municipalities where we interviewed small farmers in Leon were quite different from each other. The first, Malpaisillo, had been totally oriented toward cotton production in the past. When the international price for cotton plummeted in the early 1990s, it was partially replaced by sesame, yucca, sorghum, corn and beans (only the first two of which are produced for export). This area is made up of rich, plains land. In contrast, Santa Rosa del Penon is located in the north-eastern corner of the department, in the foothills of the central mountain region. Corn and beans production prevail in this municipality, which is noted for its extreme lack of infrastructure in comparison with the rest of Leon. Both of these municipalities are distinguished by the heavy presence of small farmers in them. And, whereas Malpaisillo had been located in the heart of the cotton-growing region, Santa Rosa had been an exporter of temporary labor for the cotton harvests of the past.

There were some additional differences between these two municipalities, which included the degree of access to land of the small farmers in each. In Malpaisillo only 46.7 percent of those interviewed had secure access to land, through their ownership of it. But, in Santa Rosa 73.3 percent of them owned their land (see Table 1). In Malpaisillo more of these landowners had purchased their land than inherited it, while in Santa Rosa an equal number of them had become landowners by inheriting their land as those who purchased it. In both municipalities, the landless farmers interviewed engaged in some type of rental arrangement in order to obtain access to it.

These farmers' access to agricultural credit was even more limited than their secure access to land (see Table 1). Whereas 66.7 percent of those interviewed in Malpaisillo who had been farmers prior to 1990 had had regular access to credit from BANADES, in 1997 only 6.7 percent did. In Santa Rosa notably fewer of those interviewed who had been farmers had attained credit prior to 1990 (only 27.3 percent), but their access to this resource in 1997 was also very restricted (13.3 percent). And, in both municipalities, to the extent that these farmers were able to attain credit in 1997, it was NGOS that provided it. Not one of them received it from BANADES.

Technical assistance was similarly circumscribed for these small farmers in Leon. While their receipt of this resource even prior to 1990 had been limited (44.4 percent in Malpaisillo; and 33.3 percent in Santa Rosa), it was even more restricted in the 1990s (see Table 1). In Malpaisillo, 26.7 percent had received it in the previous agricultural cycle (1996) and all of them had to pay for this service. In Santa Rosa only 6.7 percent had received it. And, in all of these cases, NGOs had provided this service.

In the post-1990 period, technical assistance was even more important in Leon

than elsewhere because most of the department's farmers had been forced to replace their cotton crop with other crops. Thus, they had to select the most appropriate replacements for it, and become acquainted with these new crops' production processes. The absence of this assistance undoubtedly made even more difficult the changes in production.

Nonetheless, some changes were initiated in their production (see Table 1). In Malpaisillo more than half of these small farmers had made changes in their cropping patterns. In both municipalities, however, only 30 percent had adopted the cultivation of new crops (i.e. as opposed to simply cutting back on the number of crops they produced, while continuing to grow some traditional crops) - and most of them had apparently done so without any kind of formal financial assistance.

But how did changes in production and reduced access to agricultural resources impact upon these farmers living standards? In neither municipality were many of the farmers able to live on their farm-generated income alone. In Malpaisillo 46.7 percent were employed full time on their farms, while in Santa Rosa only 40 percent were. Most supplemented their farm-generated earnings by participating in the agricultural labor force (62.5 percent in Malpaisillo; and 88.9 percent in Santa Rosa). Yet many of their farms also absorbed the labor of other family members or hired workers. Seventy-three percent of those interviewed in Malpaisillo had at least one son assisting them on the farm, and 46.7 percent did in Santa Rosa. And, they also offered temporary employment to hired laborers. What these figures suggest is that, by and large, their farms were unable to generate enough income to employ either the informants or their relations full time, but that there were peak periods of activity that required them to turn

to relatives (their sons and extended family) and hired labor for assistance.

Another indicator of how these farms were faring was the extent to which their owners had been able to make improvements upon them. Here there is a striking difference between the two municipalities: only 26.7 percent had been able to make improvements in Malpaisillo, in contrast with 66.7 percent in Santa Rosa (see Table 1).

Although a fair number of the informants were able to purchase farm animals or equipment, 20 percent in each municipality had been forced to sell some farm animals or equipment without being able to replace them.

Among those who were having difficulties getting by, a number of strategies were employed in their attempt to cope. In Malpaisillo finding work off the farm was the means most employed by those in need. In Santa Rosa, where the need was less extreme, farmers took out informal loans or simply consumed less.

Matagalpa Versus Leon

The contrasts existing between the two municipalities within each department were relatively small, however, compared to those between the departments. Going from Esquipulas to San Dionisio in Matagalpa, to Santa Rosa and, finally, to Malpaisillo in Leon, these farmers were in decreasing percentages owners of the land they farmed.

Farmers in Matagalpa definitely had more secure access to land than those from Leon (especially Malpaisillo). With regard to agricultural credit, once again the informants in Matagalpa had notably more access than those from Leon. Those from San Dionisio were the most fortunate in this sense, but those from Esquipulas were still better off than many small farmers in the country. Finally, small farmers in Matagalpa were similarly at an advantage vis-a-vis those from Leon in their access to free technical

assistance.

Differential access to resources was reflected in these farmers changing production patterns. In both Esquipulas and San Dionisio a sizable number of these farmers had been able to increase either their production or their herd size with the credit they received. This was significantly less true of the informants in Leon. And, if one brings those farmers who had been able to make purchases of some kind of farm equipment or animals into the equation, the municipalities in Matagalpa were once again at an advantage over those in Leon. Finally, the varying number of informants who had been forced to sell some equipment or farm animals without being able to replace them, also highlights the fact that those in Leon were in a more difficult economic position than those from Matagalpa.

Yet, most of the government's economic policies were implemented nation-wide. Thus, it remains to be explained why these policies had such a differing impact between the two regions. It is to this puzzle that we now turn.

Lessons to be Learned from the Nicaraguan Case

The findings described above illustrate the extent to which the small farmers I interviewed had been affected by the structural adjustment of Nicaragua's economy that the Chamorro government brought about. That is, these farmers had found their access to a number of key agricultural resources severely cut back from what it had been in the 1980s. For most of those interviewed, the growing restrictiveness of formerly available resources meant that they produced less, reduced their consumption, or found other means of supplementing their farm-generated income. In the worst of

cases, these farmers were forced by debt to sell part or all of their land and, thus, joined the pool of the landless. In all of these senses their experience paralleled that of small farmers elsewhere in Latin America in the context of SA (Rello, 1999; Conroy et al., 1996; Carter and Barham, 1996).²⁸

Nonetheless, there was a sizable group of these farmers whose economic situation had been less negatively affected than was the norm by the government's new policy orientation. This was expressed in terms of their greater access to credit, technical assistance, and so forth. But it was also indicated by their ability to expand their production and/or to bring about improvements on their farms or homes. The factors distinguishing these more privileged farmers from the rest of their counterparts were: 1) what they produced, and/or; 2) their participation in an organization that provided them with at least some of the resources they had previously received from the government.

Specializing in the ARight@ Product

With regard to the variable of the predominant product of the small farmer population, in Esquipulas and, to a lesser extent, in San Dionisio those interviewed were engaged in raising dairy cattle. Some of these farmers sold their milk and its by-products to companies that sent trucks into the region on a daily basis. Others delivered their milk directly to a local plant that established by a group of the farmers.

Prior to setting up their own plant in Esquipulas (the Agricultural Credit and Service Cooperative, R.L., Esquipulas), this latter group of farmers sold their milk to a private company (PROLACSA) based in the department capital, Matagalpa. Yet, given

the perishable nature of their product, they were completely dependent on PROLACSA to insure the pick up and transport of it in a timely fashion. This put them in a vulnerable position vis-a-vis decisions about the price they received for their milk. Thus, these farmers organized themselves into a cooperative and applied for financial assistance from a government development program that had foreign financing. With this funding, and their own membership fees, they were able to set up their own milk plant in 1995, which has allowed them to manage the commercialization of their produce. In setting it up, they cut out at least one level of intermediaries, thereby allowing more of the profits to remain with them. Having their own plant also meant that they had more control in negotiations over prices, as they no longer relied on others to insure that their milk reached refrigeration facilities before going bad.

At the same time, the milk plant and its members benefitted from the new market that had opened up for Nicaraguan milk and cheese. This market consisted of buyers from El Salvador. Given its relatively large population and the small size of the national territory, El Salvador's consumption of dairy products was dependent on purchases from countries with larger industries. Nicaragua's milk industry was the largest in Central America at the time. Thus, Nicaragua's ample milk supply was tapped to meet El Salvador's need for dairy products and by 1998 El Salvador had become Nicaragua's biggest market for milk (La Prensa, 1999).

This marketing relationship had existed prior to 1979. But it was disarticulated by the Sandinista government, which had stepped in to control the international marketing of Nicaraguan produce. Like its efforts to control domestic commercialization of produce, the stated objectives of this policy had been to insure a stable price for

domestic producers (i.e. to protect them from vacillations in international markets), guarantee access - at reasonable prices - for local consumers, and, if there was a surplus generated by a surge in international prices, to channel it toward domestic social or development projects rather than individual luxury consumption by producers.²⁹

The lifting of government controls on trade that came with the change in government in 1990 had a mixed impact on producers - hurting some and bringing gains to others. Most of Nicaragua's small farmers are first and foremost basic grains producers, and they were quite negatively affected by the influx of food aid and imports. However, producers of milk and its by-products were able to take advantage of the new opportunities for marketing their produce and to reap notable benefits from them.

At the other extreme of the continuum represented by these four municipalities was Malpaisillo. Given that the area's principal crop until the early 1990s was cotton, and that its price in the international market dropped massively at that time, its production virtually disappeared from the regions that it had dominated in the 1950-90 period.

For cotton farmers, including some of those interviewed as part of the survey, this meant that they were abruptly forced to find an alternative crop(s). But the disappearance of cotton from Malpaisillo, and other municipalities in this region, also meant that the labor market for workers who assisted in its cultivation, and especially its harvesting, likewise dried up. In this sense, Santa Rosa's small farmers were also hurt by the demise of cotton. From one year to the next, an entire regional economy was

thrown into disarray when the bottom dropped out of the cotton market.

Ironically, the international market had showered many dairy farmers in Matagalpa with benefits, while it wreaked devastation in Leon. Cotton production had always been dependent on the international market, with its consequent booms and busts. Yet, at least for the moment, the opening up of Nicaragua's market in dairy products had brought about a boom for its producers.

The Generation of Social Capital through Farmer Organizations

Good fortune with a principal product in the international market, however, does not explain all of the cases in which SA had not weakened the economic position of the small farmers I interviewed. The additional explanatory factor here was the extent to which these farmers participated in local organizations that facilitated their access to at least some of the services that they had previously received from the state or that aided them in some other way within the new economic context. Even in the case of Esquipulas, where the product they produced was a crucial variable in the equation, organization among these farmers was also important. Clearly, the organizations that many of them (57.1 percent) formed a part of had put them in a position to take advantage of a positive situation in the market for their product.

The situation of small farmers in San Dionisio provides the clearest example of the crucial role that organization among them played. There, most of our informants followed the pattern set throughout the region by specializing in the production of basic grains. Thus, the products these farmers focused their agricultural labors on were obviously not what served to ameliorate the negative effects of SA.

Instead, organization was these farmers' salvation. In this municipality, which is noted for the very high level of organization of its rural population, a full 80 percent of those interviewed had worked for at least a few years during the 1990-97 period with some kind of organization that brought farmers together (see Table 1). The most important of these organizations was that known as the Asociacion Indigena, whose name underlined the notable presence of an indigenous population in the region. What this organization, and others existing in the municipality, did for the farmers who worked with them was to provide them with at least some of the resources they had been cut off from with the initiation of the Chamorro government's SA program. That is, it provided them with some credit - although typically not as much as they had previously received from BANADES, technical assistance, and, at times, training in agriculturally-related skills (e.g. soil conservation).³⁰

In the 1990s a multitude of organizations sprang up in Nicaragua, most of which sought to organize and to improve the position of the less advantaged sectors of the population. These organizations, whether newly formed or having recently expanded their activities, were often the recipients of funding from foreign NGOs and governments seeking to foster the growth of the private sector and/or civil society. Inevitably, farmers who were organized were much more likely than the unorganized to receive the benefits that might come from these international relationships, for the simple reason that, from the point of view of the funders, their organization facilitated the implementation of projects. Thus, San Dionisio's previous history of having a highly organized rural population definitely worked in its favor, making it of little coincidence that it stands out for the heavy presence of NGOs with projects there.

Although not having a pre-1990 history of being significantly more organized than other municipalities, Santa Rosa's rural population had been thought to have a lot of potential for becoming organized.³¹ Someone who had worked in this municipality at various points in time since the early 1980s, argued that this potential arose from the very extreme poverty that has characterized Santa Rosa for decades - this is the poorest of Leon's municipalities - and from the strong training in organizational development that the National Union of Farmers and Ranchers (UNAG), the Agricultural Workers= Union, and the Sandinista National Liberation Front had engaged in there in the 1980s (Interview - UNAG activist - 16 July, 1999). Whatever its origins may be, this potential was evidently borne out because a significant number (73.3 percent) of those included in the survey from Santa Rosa had participated in some kind of organization working in the municipality's rural areas during at least a few years in the early 1990s.

However, it is important to note a key difference between the organizations working in San Dionisio and those in Santa Rosa. In contrast to farmers in San Dionisio, those in Santa Rosa generally did not receive credit and technical assistance from the organizations there. The principal kind of assistance these organizations offered was training in soil conservation techniques. Familiarity with these techniques was very useful, given that this region was considered an "ecological disaster" area. Deforestation had brought about erosion and dramatic changes in rainfall patterns, resulting in much less rain falling there. Clearly, this had an impact on farming in the area. So attaining skills of this kind could assist the municipality's small farmers to work toward reversing (or at least ameliorating) some of the damage wrought by deforestation. Nonetheless, acquiring knowledge about soil conservation techniques

was not the same as receiving agricultural credit - or even technical assistance. That is, it could not be translated so directly into economic benefits for program participants.

At the same time, the serious lack of infrastructure in Santa Rosa would have also worked against farmers in this department. It would have complicated their attainment of inputs and, even more importantly, the marketing of their produce. Thus, even if they were producing the same crops as farmers elsewhere - such as those in San Dionisio - their isolation put them in a much less advantageous position vis-a-vis the market.

Hence, several of the indicators used above to suggest standard of living changes that had characterized these farmers since 1990, point to a difference between these two highly organized municipalities. For example, fewer of Santa Rosa's informants had been able to make purchases of farm equipment or animals than their counterparts in San Dionisio (40 percent versus 73.3 percent, respectively). And, the forced sale of agricultural equipment and animals was somewhat more common in Santa Rosa than San Dionisio (20 percent versus 6.7 percent, respectively). Yet, the organizational "infrastructure" that had been brought into existence in Santa Rosa contained within it the potential for other NGOs to enter the area and bring different kinds of resources - including credit and infrastructure, which might be more immediately beneficial in economic terms.

At the other end of the organizational spectrum was Malpaisillo. Only a few (13.3 percent) of the small farmers that I interviewed there worked with some kind of organization. Regardless of the reasons leading Malpaisillo's small farmers to participate less in rural organizations than small farmers in the other three

municipalities, the consequences it had for them were significant. That is, it made it much more difficult for NGOs that wanted to set up assistance and development projects. In effect, this crucial means of ameliorating the impact of SA and of King Cotton's disappearance from this area was unavailable to farmers there.

The [organizational] networks of support of the kind found in San Dionisio and Santa Rosa resemble what some have spoken of as "social capital." In describing the efforts of Andean communities in ecologically disadvantaged locations to achieve economic and social sustainability, Bebbington (1998: 4) argues that social capital has played a central role in determining their success or the lack thereof. Drawing on Putnam's (1993) study of Italy, Bebbington defines social capital as "'horizontal' forms of association and networks that cut across and link associations, market and state actors." Social capital forms the basis for a fortified civil society, which in turn encourages state responsiveness and market efficiency and inclusiveness. In sum, social capital can give strength to the individuals and groups that generate it in their negotiations with the state and market.³²

Bebbington (1998) points out that most of the literature on social capital argues for its success in the political sphere, and it has made a much weaker case vis-a-vis the economic sphere. Yet his study of peasants in the Andes suggests that it can make a difference with regard to these population's relations with the market. My findings support this argument in that small farmers in the four municipalities where I conducted fieldwork evidenced differing levels of organization which corresponded to the indicators describing their access to agricultural resources and their economic well-being.

In addition to stressing the significance of the product these farmers specialized in and their organizational levels in explaining how they fared in the context of SA, it must be recognized that both of these factors were related to the opening up of Nicaragua's economy and society to international forces. That is, although the breaking down of barriers to trade clearly hurt some sectors of Nicaragua's producer population, the country's dairy farmers actually benefited from this change. At the same time, the linkages between local and internationally-based organizations multiplied after 1990 as the latter explicitly sought to develop relations with actors in civil society, in part in response to the shrinkage of the state. Likewise, the state generally encouraged this development, as it attempted to relinquish many of its former responsibilities.

In sum, under certain circumstances the impact of SA can be modified, if not made to work in favor of small farmers. That is, occasionally (notably, for farmers in only one of these four municipalities) trade liberalization brought about by it will bring benefits to small farmers. However, given the general pattern of small farmers being food crop producers, unless a new export market opens up for what they have traditionally produced, they will probably be hurt by trade liberalization. Even where small farmers have been induced to switch to export crop production, the net effects of this shift have been quite mixed (c.f. Conroy et al., 1996; Murray, 1997; and Kay, 1997). Thus, those small farmers benefiting from the opening to international markets will likely remain a minority. Yet, at least some of my interviewees who had kept their domestic-market orientation had been able to buffer themselves from the full effects of SA. Here, participation in an organization that could make up for some of the resources

they had lost as a consequence of SA's austerity measures was what provided them with such a buffer.

Conclusion

By and large the findings from my survey, and related interviews, indicate that SA has had a similar impact on Nicaragua's small farmers to what it has had elsewhere in the region. That is, government austerity measures - in terms of cutbacks in state-sponsored credit, technical assistance and agrarian reform, to say nothing of public social services - have greatly reduced their access to these resources. Moreover, application of austerity measures has been such that their effects have discriminated against small farmers.

Likewise, trade liberalization and currency devaluations have had a deleterious effect on farmers whose production is oriented toward the domestic market. And, the combination of reduced access to agricultural resources and poor producer prices stimulated by grain imports (and food aid), have pushed these farmers closer and closer toward mere subsistence production. Finally, the privatization process in Nicaragua has generated a degree of insecurity in the countryside that, when combined with the other effects of SA, has encouraged the parcelization of cooperative land and, in some cases, the sale of that land.³³

To the extent that some of those interviewed had held their own, or even experienced economic advancement in the 1990s, the key factors described above - having as their principal product a commodity that was doing well in the international market and/or their participation in community, and other kinds of, organizations that

filled some of the gaping holes left by the cutbacks in government resources directed at their production - seemed to have been responsible for it. Other factors besides these two might have served to soften the blows of SA for small farmers elsewhere in Latin America.³⁴ Yet, in the Nicaraguan case, these "ameliorating" factors did not completely override the impact of SA even where they did exist.

Even more importantly, to date, those small farmers who have benefitted from them remain a minority. The majority have simply had to reduce their production, as well as their consumption, at the same time as they accelerate their search for options off the farm - an alternative that likely yields few results. And, where minorities of small farmers - who produce "just the right" crop or who have received the limited resources that NGOs and other organizations have to offer - do sprout up, they have come to represent those few who are fortunate enough to rise upward (or just to stay afloat) as the process of social differentiation that SA has stimulated moves apace. Clearly, further research needs to be completed before we will know if there are additional "ameliorating factors" that can multiply these special pockets of small farmers. But, in the meantime, for the majority who have not gained entree into this select group, their wait for the benefits of SA to "trickle down" continue.

Endnotes

1. On the weakening of the Sandinistas' initial economic model, see Pizarro (1985) and Stahler-Sholk (1990).

2. This is not to suggest that Sandinista economic policy in general, and agricultural policy in particular, had been problem-free. But rather to highlight the contrast in emphasis and, to a significant degree in impact as well, of these two distinct policy orientations. For further discussion of problems associated with Sandinista economic - and agricultural - policies see Stahler-Sholk (1990); Enriquez (1997); Spoor (1989); and Utting (1997).

3. Traditional definitions of producer size were employed to select these farmers, which were based on land holding size. But the definitions varied by region, taking into account access to infrastructure, markets, etc.. Thus, in the Department of Matagalpa the term small-scale producer included farmers with up to 50 manzanas [1 manzana (mz.) = 0.7 hectares]; whereas in the Department of Leon, it included farmers with up to 20 mz. of land. These definitions were taken from the agricultural census of 1952.

4. Remnants of Somoza=s National Guard, which the Sandinistas had swept from the country in 1979, actually initiated their counterrevolutionary activities as early as 1980. Over the course of the 1980s, the contra forces, which were armed and organized by the U.S. government, increasingly drew support from parts of the landowning class and their most loyal workers, who opposed the agrarian reform and other aspects of Sandinista policy; and - in some regions - some parts of the large and middle peasantry, who feared the broadening of the agrarian reform, and had been hurt - among other things - by the Sandinista government=s grain commercialization policy and the military draft; and - especially in the war zones - some sectors of the poor peasantry, who had also been negatively affected by the grain policy and the draft. For more information on the contra war and its relationship with the rural population, see Horton (1998), Spalding (1994), Escuela de Sociologia-UCA (1987), and Robinson and Norsworthy (1987).

5. A snowball sampling procedure was adopted because there is no comprehensive list of Nicaragua's small farmers (or of the small farmers in each of these municipalities), thereby making the construction of a random sample of the population beyond the possibilities of this study. In each municipality the entree for beginning the "snowball" was slightly different:

In Esquipulas and San Dionisio my research assistant and I began with a list of the small farmers that were interviewed by the research team of a Nicaraguan NGO that

had conducted a survey addressing "development needs" in the Department of Matagalpa. However, so as not to duplicate their sample, we only drew a few names from their lists for each of the municipalities, and then asked these individuals for more suggestions of who we might speak with. This process was repeated until we had succeeded in interviewing 15 small farmers from each of these municipalities. In selecting those who would compose the sample we made sure to cover multiple rural zones within each municipality, so that our data would reflect the situation throughout the municipalities, rather than in just one or two communities. There were, however, a number of zones that were inaccessible due to the activities of armed bands (the "armados") or because of their distance from roads, which would have entailed several days of travel by foot to get back and forth from them.

In Malpaisillo and Santa Rosa del Penon our entree was provided by representatives from a local development project, who put us in contact with a few individuals in each rural hamlet. These individuals were the starting point for our snowball. Here, too, we made sure to cover a number of different rural zones. However, due to Santa Rosa's lack of infrastructure, the sample there was limited to those small farmers whose land was located within reach of roads; within an easy hike (e.g. several miles) of a road; within a mule ride that was no more than 3 hours in each direction; or to those who had come into the municipal capital and were willing to be interviewed there. The broadening out of the snowball was repeated until we had interviewed 15 small farmers in each municipality.

6. For a variety of perspectives on SA, see Williamson (1990); Loxley (1986); Haggard and Kaufman (1992); and Veltmeyer, et al. (1997).

7. Nevertheless, Barham et al. (1992:54) call into question the notion of comparative advantage being a *given*,⁶ arguing that *land* tenure, investment, state policies, and institutional arrangements⁶ factor into decisions about production strategies that appear to be based entirely on national resource endowments.

8. Increased demand for fresh fruits and vegetables in the north, combined with advances in transportation technologies, had provided an impetus for this expansion (Murray, 1998).

9. The latter study also took Chile into account.

10. According to Barham et al. (1992: 49) NTE (including non-agricultural, natural resource based goods) as a percentage of GDP were the following in their three case study countries, all of which were NTE leaders: Chile - 11 percent; Costa Rica - 11 percent; and Guatemala - 8 percent.

11. On Central America, also see Goldin, 1997; and Rello, 1999. And, on Chile, one of the earliest to implement a SA of its economy, see Kay (1997: 12-13).

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12. de Janvry and Sadoulet (1989), Thrupp (1995), and Murray (1998) reach similar conclusions.
13. The new export crops also represent a problematic venture from an environmental point of view, as they are heavily reliant on agrochemicals to control the pests associated with them.
14. Rejection of NTAE products by purchasers can occur for a variety of reasons and is not uncommon (Conroy et al., 1996).
15. See Rello (1999) for a discussion of this issue vis-a-vis Mexico and Central America; Scott (1996) looks at it in Chile, especially during the period of standard SA between 1973 and 1987; Nakano (1992) describes this situation in Brazil; and Ganuza et al. (1998) provide an overview of Latin America.
16. It should be noted that this reform was implemented without any substantial international financial assistance.
17. In this sense, there are parallels between Nicaragua=s and Chile=s SA programs.
18. For a selection of studies of SA in Nicaragua see Acevedo Vogl (1993); Evans (1995); Saldomando (1992); Neira Cuadra (1996); and Stahler-Sholk (1997).
19. See further Stahler-Sholk (1997).
20. They had actually fallen notably between 1990 and 1992 (c.f. Stahler-Sholk, 1997).
21. Its important to note here that there was also a worsening in the distribution of income at a national level during this period: whereas in 1985 the poorest 20 percent of the population earned just under 6 percent of the income, by 1993 this figure was just under 1 percent (Ibid.: 623). In contrast, the wealthiest 10 percent of the population jumped from earning 27.11 percent of the income in 1985 to 51.49 percent in 1993.
22. For some of them, their access to land came through several means (e.g. by purchasing one plot and inheriting another).
23. That is, credit made available from a lending institution or a NGO with a lending program.
24. This notable difference between Esquipulas and San Dionisio will be addressed below.
25. This difference between Esquipulas and San Dionisio will also be addressed below.

26 . However, it should be borne in mind that another 26.7 percent of these were engaged in working with one or another peasant organization - which was typically not an activity engaged in out of economic necessity, but rather out of a commitment to bettering the lives of those in the community.

27 . This is in addition to members of their nuclear and extended family who worked on the farm.

28 . In Chile the problem of landlessness has grown enormously since the implementation of SA (c.f. Gwynne and Kay, 1997).

29. On the logic behind state control over international and domestic marketing of produce, and some of the dilemmas it generated, see Utting (1987); Spoor, et al. (1987); and Irvin (1983).

30. See Jonakin and Enriquez (1999) for further information concerning the role played by the non-traditional financial sector in Nicaragua in the 1990s; and Bebbington and Farrington on the ways in which NGOs fill gaps in government programs in the wake of SA throughout the Third World more generally.

31. Interview - Rural Development Consultant, who worked throughout most of the 1980s for the Ministry of Agricultural Development and Agrarian Reform - 17 March, 1998.

32. In addition to Putnam (1993), see also Woolcock (1998) on this topic.

33. Admittedly, only a small minority of those interviewed had been left with no land following land sales in the 1990s (5 percent), but the fact that they turned up in this survey that specifically sought out "practicing" small farmers was noteworthy.

34 . In Chile the logic of the government=s post-1993 efforts at *reconversion* of peasant production would seem to suggest that its promoters saw their shift to more profitable products - i.e. the pursuit of more overtly capitalist behavior - to offer such potential (Kay, 1997). Drawing on both the Chilean and Guatemalan cases, avoidance of indebtedness through very limited credit use might also help to sustain small-scale production (c.f. Murray, 1997; and Conroy et al., 1996).