



Enabling poor rural people
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Conference on New Directions for Smallholder Agriculture
24-25 January 2011, Rome, IFAD HQ

Latin America: The State of Smallholders in Agriculture

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**Paper presented at the IFAD Conference on New Directions for Smallholder Agriculture
24-25 January, 2011**



**International Fund for Agricultural Development
Via Paolo Di Dono, 44, Rome 00142, Italy**

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SUMMARY

The smallholder or family-based agriculture sector in Latin America and the Caribbean (LAC) is defined as a sector made up of farms that are operated by farm families, using largely their own labor.

A detailed analysis of recent data for several countries allows us to approximate that there are 15 million family farms in LAC, controlling about 400 million hectares. The family farming sector can be classified in three large groups: (a) Almost 10 million subsistence farms, with 100 million hectares, where households derive a large proportion of their income from non-farm jobs, remittances and/or social subsidies; (b) an intermediate group of 4 million farms with 200 million hectares, that are integrated in agricultural markets but face significant constraints derived both from their asset endowment and from the proximate contexts in which they operate; (c) about 1 million family farms that hire some permanent labor and that manage about 100 million highly productive hectares.

The performance and opportunities of these family farmers is largely determined by the characteristics of their proximate context, which is unfavorable in most cases. Recent trends of agrifood markets also create a new environment for family farming in LAC.

1. Introduction

Latin America (LAC³) has undergone fundamental economic, social, cultural and political changes since 1980. The past three decades have seen the region: liberalize and open its economy, including its agricultural sector; dismantle numerous public services related to agriculture; redefine the relative roles of the state, markets and civil society in development; nurture a growing number of medium and large corporations, including multinational ones, that play a dominant role in agriculture as in other sectors of the economy; dramatically expand the provision of basic health and education services, including in rural areas; introduce television, radio and mobile phone communications to the majority of rural areas; reduce its population growth; concentrate population in urban centers, including small and medium provincial towns and cities; expand the rights and opportunities of women; reestablish democracies and strengthen the rule of law and the respect of human rights; increase the responsibilities of regional and local (municipal) governments; expand the size, voice, and contributions of organized civil society; deforest vast regions, contaminate many of its rivers and lakes, and further erode its soils, while at the same time experience an awakening of an environmental consciousness and activism on the part of growing sectors of the population. LAC is truly a very different place than one generation ago.

What has not changed to the same degree, unfortunately, is the incidence of poverty nor the dismal distribution of income. In the early 1980s there were 124 million rural inhabitants in LAC⁴, 74 million of whom were poor and, of these, 41 million could not even meet their food needs; 30 years later, the numbers are 119 million, 62 million and 35 million, respectively (Berdegúé, 2010, CEPAL, 2010). This mediocre performance in rural poverty reduction is even more disappointing if one considers that in the same period GDP per capita increased by over 25% in real terms.

Inequality is in large part the reason why economic growth and, indeed, the rapid transformation of LAC societies, have not resulted in a more substantial poverty reduction. If adjusted by inequality, the Human Development Indexes (HDI) of 18 LAC countries for which there is data, drop below the HDI for Africa (four countries) or Asia (11 countries)⁵. The 20% richest of the rural population earn between 10 and 50 times more than the 20% poorest ranges (CEPAL, 2010); in 9 of 16 countries for which there is data, this measure of income distribution is worsening (Berdegúé, 2010). The majority of the countries for which there is data have Gini coefficients of rural income that are higher than 0.5, thus confirming rural LAC the most unequal rural sector in the world (Schejtman and Berdegúé, 2009). Inequality of access to land is even worse, with a Gini of 0.78, compared with Africa's 0.62 (Justino et al., 2003).

Because of this deep inequality, *average* national incomes give a very distorted image of the reality of LAC's rural people, portraying them as "middle income" when, in fact, many of them are very poor. For example, while Mexico's GDP per capita is of \$8,920, the average income of the poorest 40% of the rural population is \$652/year, and that of the poorest 20% is of \$456/year (equivalent to the GDP per capita of Tanzania).

Rural households whose head declares him or herself to be primarily "self-employed in agriculture" have seen a deterioration in their welfare over the past 20 years or so. In ten out of 15 countries analyzed, there has been a growing gap in poverty rates between this category and the rural average: Costa Rica (gap

³ Here defined to include the 19 Spanish and Portuguese-speaking countries South of the Mexico-USA border, including two Caribbean countries (Dominican Republic and Cuba).

⁴ Using the official definition of "rural", which in all LAC countries significantly under represents the true size of the rural population, by as much as 100% or more (de Ferranti et al., 2005).

⁵ Data taken from <http://hdrstats.undp.org/en/tables/default.html>

grows by 22 percentage points), Panama (15 points), Mexico (14 points), Chile (10 points), El Salvador (9 points), Guatemala (7 points), Nicaragua (4 points), Honduras (3 points), Paraguay (2 points) and Bolivia (one percentage point). Peru remains stable, while there are improvements (narrowing of the gap) in Dominican Republic (12 percentage points), Colombia (10 points), Brazil (5 points), and Venezuela (1 point) (Berdegué et al., 2006). However, according to Modrego et al. (2006), there has been a significant reduction in the gaps in services such as education of household members over 15 years of age and access to electricity, between households headed by “self-employed in agriculture” and those headed by “employers in agriculture.”

This paper explores the state of family farmers in Latin America as a (diverse) social group that is caught between these two realities: a rapidly changing context that creates new incentives and new opportunities, and the dead weight of structural inequalities that constrain many from and participating in and taking advantage of development processes.

The paper is organized as follows: the next section defines family farmers in LAC and outlines a framework for analyzing their current state and future opportunities; section 3 quantifies the family farmer sector; section 4 discusses key aspects of the context in which they operate; and section 5 concludes with reference to specific challenges and opportunities.

2. Concepts

Since Alexander Chayanov published in 1925 his theory of the peasant economy, there has been a recognition that the key feature of the agricultural smallholder sector is its reliance on family labor, that leads to linking the operation of the family farm to the family's consumption and labor circumstances and demographic cycles (Chayanov, 1986).

More recently, authors as diverse as CEPAL (1982), Lipton (2005), or the World Bank (2007), have forged a strong consensus that the definitional characteristics of this type of agriculture include : (a) small farms, (b) family-operated, (c) no or limited non-family hired labor. There is less agreement on whether other factors ought to be included in the definition, the most important of which (for both analytical and for policy and even political purposes) is the ability of the household or family to sustain its livelihood on the basis of its self-employment in its own farm. But regardless of the ongoing debates, the above-mentioned characteristics are the crux of the matter.

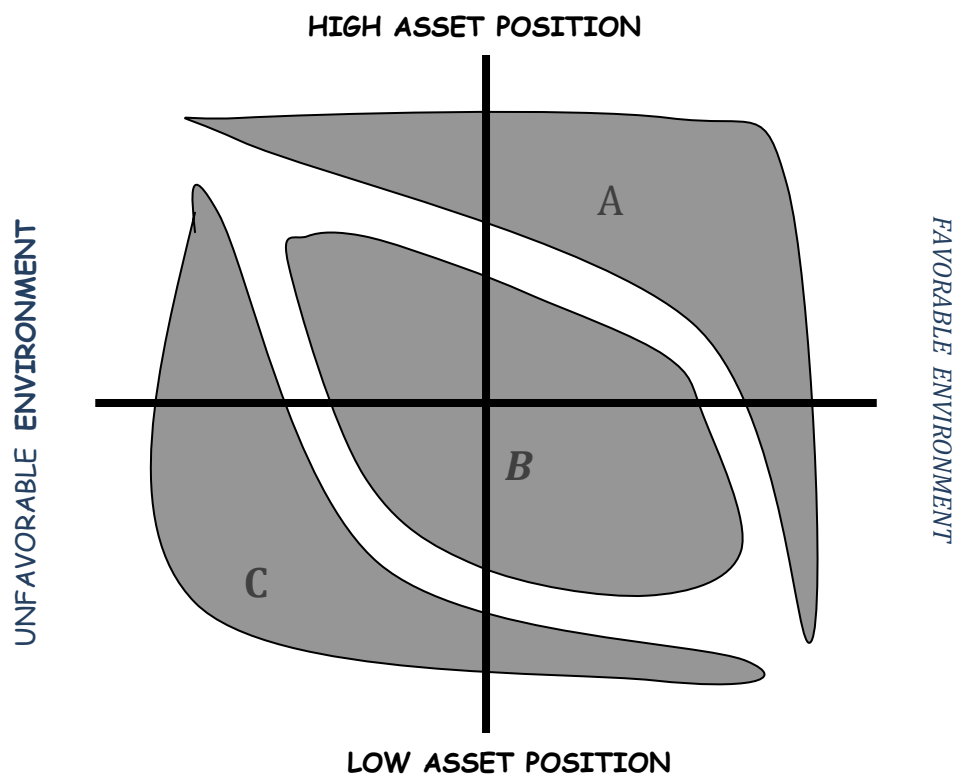
Yet, when it comes to making use of the concept, we have somehow ended with a working definition of smallholder agriculture as meaning "farms of 2 hectares or less" (Nagayets, 2005; Wiggins et al., 2010; Hazell et al., 2010; IFAD, 2010). The author of the most recent analysis that uses the 2 hectares definition recognizes the limitations of this approach, "given that it fails to properly account for the quality of resources, the types of crops grown, or disparities across regions... The size-based definition also precludes analysis or comparison of institutional or market arrangements available to farmers... as well as their access to key social services... further, the size-based definition does not shed light on a farm's labor arrangements... which can also have substantial implications for the farms' efficiency and productivity" (Nagayets, 2005, p. 355). In short, the "2 hectare" definition is a measure of our ignorance and not of our understanding of smallholder farming, nor of what is needed for well-designed strategies and policies.

In this paper smallholder or family-based agriculture is defined as a social and economic sector made up of farms that are operated by farm families, using largely their own labor. We therefore include in the smallholder or family-based agriculture sector, two categories which could be controversial. First, a large sub-sector often referred to as "subsistence farmers", who derive a large fraction of their household income from non-farm sources, including non-farm

employment, remittances and cash and in kind social welfare support. Second, a sub-sector that is smaller in number of farms, but of much greater importance when it comes to economic participation; these are commercial family farmers who may employ one or two permanent non-family workers, but where still much of the farm work and of the farm management is done by family members.

Furthermore, we want to add another dimension to the discussion of the smallholder sector. While the farm size and family labor criteria are very important, they miss a key point: the actual performance and potential of a family farm, is conditioned not only by the availability and use of its assets, but by the characteristics of its proximate environment, socioeconomic as well as biophysical (de Janvry and Sadoulet, 2000).

Assets and context are used by Berdegúe and Escobar (2002) to propose a framework as depicted in figure 1. On the vertical axis, figure 1 recognizes variation in land, labor and/or capital asset endowment, with farms with more/better assets on top of the graph. Environments or contexts vary along the horizontal axis, with more favorable ones on the right and unfavorable areas on the left. With this framework, the agricultural sector can be categorized in three large groups, each of which requires specific strategies and policies in order to make the best possible use of their assets in the context in which they operate.



Source: Berdegúe and Escobar, 2002

Figure 1. Types of family farms according to asset endowment and context

The first category, group A in figure 1, includes some (few) smallholders that have a relatively important asset endowment (it can be of land, labor, and/or access to capital) and are located in places (territories, regions) where the productivity of those assets is high. These farmers are usually fully integrated in a market economy and make a substantial contribution to the

production of food for domestic and international markets. Their future depends at least as much on market trends and developments than on the specificities of public policy.

The second category, group B in figure 1, is often ignored in polarized policy debates, that is, those that are reduced to dichotomous categories (large versus small farms; commercial versus subsistence; "viable" versus "unviable"; poor versus rich). The transformation of LAC rural societies have led to a significant sector of family farms that have some assets but that often lack a few critical elements that can make the difference (e.g., they have land but lack enough credit or are not part of an effective producers organization), and that are located in places (territories or regions) where the biophysical and socioeconomic conditions are "good enough" but that are not the fast-moving regions of highly competitive, globalized agribusiness. This is a sector that falls through the cracks of institutional failures and State weaknesses, often ignored by policy makers focused on promoting agricultural exports *and* by those whose mandate is to target the poorest; not eligible for many public programs targeting the most disadvantaged, nor strong enough to make it on their own in open and competitive markets. This is a sector made invisible by the 2 hectare limit, and yet *it represent the best opportunity in LAC for strategies and public policies aimed at revitalizing rural societies and for promoting socially inclusive economic growth.*

The third category, group C in figure 1, is the other extreme of the distribution. It is composed of resource-poor farmers located in places where conditions are adverse not only for agriculture, but often for other economic activities. Many, perhaps the majority of these farm families, derive only a fraction of their income from agriculture; they trade only a fraction of their production and consume much of it within the household or the local community; and are increasingly dependent on low-quality non-farm jobs, temporary or partial migration and remittances, and cash and in kind transfers from social programs. The majority of smallholders in this group are poor. There is significant agreement in LAC that agricultural development is unlikely to be sufficient to move these smallholders out of poverty. Nevertheless, there is growing recognition that agricultural income is an essential, if not dominant, part of the livelihood strategies of these smallholders, in particular if the focus is on reducing vulnerability to shocks and on the prevention or amelioration of crisis that can push these families to levels of abject misery from which they may never recover.

There are many dimensions to both "context" and "assets" and one needs to make certain choices. For the purpose of this paper, "context" will be discussed with respect to economic growth and poverty reduction trends at the local level, and agrifood market trends.

In conclusion, a simplification of the heterogeneity of smallholder agriculture that is useful for the purpose of designing and implementing development strategies, policies and programs, is as follows:

- Asset-poor smallholders in territorial and regional contexts that are not conducive to economic growth and social development.
- Smallholder agriculture with some limitations of assets in territorial and regional contexts where there is a measure of economic growth and social development.
- Asset-rich smallholders in territorial and regional contexts that are very conducive to economic growth and social development.

3. The smallholder sector in LAC

Using the definition of the smallholder sector as that comprised by farms of less than 2 hectares, Nagayets (2005) finds that there are about 5 million small farms in the Americas. This estimate,

adopted by other authors (e.g., Wiggins et al., 2010; Hazell et al., 2010) as well as by IFAD in the background concept note for the conference on "New Directions for Smallholder Agriculture", is patently wrong. While a limit of 2 ha perhaps fits the distribution of landholdings in Asia⁶, it certainly does not in LAC. There, this procedure distorts our understanding of smallholder agriculture, and misguides the design of public strategies and policies, as it reduces the smallholder to a fraction of its real size, particularly if measured in terms of economic and social contributions.

Based on agricultural census data, Chiriboga (1999) estimated that in 15 LAC countries there were about half a million corporate farms, controlling roughly 55% of the farm land in LAC. The rest, that is, the smallholder sector according to this analyst, would be made up of about 6 million commercial family farms (42% of the land) and 11 million subsistence farms (3% of the land). Distribution of farms according to this classification varies by sub-region, with a higher proportion of commercial family farms in the Southern Cone, than in the Andes, than in Central America.

Schejtman and Berdegúe (2009), using different sources to those of Chiriboga (1999), estimate that there are 7.3 million type B farms (see figure 1) in Brazil, Chile, Colombia, Honduras, Mexico, Paraguay and Peru, representing between 14% and 53% of the total number of farms in those countries.

Soto Baquero et al. (2007) studied six countries (Brazil, Chile, Colombia, Ecuador, Mexico and Nicaragua) and concluded that the family-based agricultural sector was made up of 11 million units (and 50 million people), and that they controlled between 30% and 60% of the agricultural land in those countries (including forests). These authors differentiate three strata: subsistence farms (equivalent to type C in figure 1), in transition (type B) and consolidated (partly in type B and partly in type A). Subsistence farms are 7 million (and 63 million hectares), the group in transition adds up to 3 million (43 million hectares), and the consolidated family farms are 1 million (29 million hectares), all according to Soto et al. (2007).

Schejtman (2008) added data for six countries (Argentina, Bolivia, Guatemala, Paraguay, Peru and Uruguay) to the study by Soto Baquero et al. (2007), reaching a total of 14 million farms, of which 60% correspond to subsistence smallholders, 28% to small farmers in transition, and 12% to consolidated family farms.

Recent evidence has established that the smallholder sector is not decreasing in numbers in LAC. Under different scenarios of economic growth and urban-rural wage differentials, Bezemer and Hazell (2006) projected "little change in Latin America and the Caribbean" (p. 13). Modrego et al. (2006) analyzed household surveys for nine countries and found slow annual changes in the proportion of rural households that they defined as "self-employed in agriculture" (Table 1). In fact, in four of the nine countries (Chile, Colombia, Guatemala and Honduras), their participation increased over time.

⁶ According to the Nagayets' estimate (2005), 87% of the world's 400-500 million small farms in the world are in Asia, and Africa would have about 40 million small farms.

Table 1. Rural households by economic activity of head of household in Latin America
(Percentage).

Country	Year	Group									
		Self-employed ag	Employers ag	Employees ag	Agriculturally based HH	Self-employed not ag.	Employer not ag.	Employee not ag.	Not agriculturally based HH	Unemployed / Not in the labor force	
Chile	1990	18.35	2.79	33.66	54.81	5.14	0.46	11.66	17.26	27.93	
	2003	19.48	1.74	27.54	48.76	5.70	0.74	12.24	18.67	32.56	
	D	1.13	-1.05	-6.13	-6.05	0.56	0.28	0.58	1.41	4.64	
Colombia	1995	19.66	5.63	23.78	49.07	16.12	2.03	16.64	34.79	16.14	
	2000	24.73	5.42	18.07	48.22	16.72	1.87	14.78	33.37	18.42	
	D	5.08	-0.21	-5.71	-0.85	0.60	-0.16	-1.87	-1.42	2.27	
Costa Rica	1995	10.44	3.18	18.55	32.17	11.61	3.56	32.05	47.22	20.61	
	2001	9.76	4.67	17.04	31.47	12.00	4.65	30.11	46.76	21.92	
	D	-0.68	1.49	-1.52	-0.70	0.39	1.09	-1.94	-0.46	1.31	
Guatemala	1989	9.42	0.52	6.89	16.83	19.42	3.47	43.75	66.64	16.53	
	2002	34.09	5.19	16.71	55.99	9.27	3.88	15.03	28.18	15.84	
	D	24.67	4.67	9.82	39.16	-10.16	0.41	-28.71	-38.46	-0.69	
Honduras	1995	34.44	1.95	14.23	50.62	14.97	2.25	14.66	31.88	17.50	
	2003	40.94	1.29	16.34	58.57	12.29	0.51	11.44	24.24	17.19	
	D	6.50	-0.66	2.12	7.96	-2.68	-1.74	-3.21	-7.64	-0.32	
México	1994	29.36	5.05	24.36	58.77	8.94	1.05	17.27	27.27	13.96	
	2002	26.10	4.10	22.31	52.50	9.82	0.98	20.69	31.49	16.01	
	D	-3.27	-0.96	-2.05	-6.27	0.88	-0.07	3.42	4.22	2.05	
Nicaragua	1993	36.40	0.13	15.08	51.62	8.57	0.08	14.56	23.21	25.18	
	2001	34.17	8.74	16.52	59.43	7.69	1.45	14.35	23.50	17.07	
	D	-2.23	8.60	1.44	7.82	-0.88	1.37	-0.21	0.29	-8.11	
Paraguay	1995	52.65	0.00	8.73	61.38	13.11	2.21	13.49	28.82	9.80	
	2001	43.31	3.64	8.28	55.23	10.81	2.42	16.45	29.68	15.09	
	D	-9.35	3.64	-0.44	-6.15	-2.31	0.21	2.96	0.86	5.28	
Perú	1994	61.78	0.00	11.62	73.40	10.88	0.00	10.18	21.06	5.54	
	2002	53.63	9.10	8.24	70.97	9.23	1.13	12.49	22.86	6.18	
	D	-8.15	9.10	-3.38	-2.43	-1.65	1.13	2.32	1.80	0.64	

+*Indicates difference not statistically significant at 5%

Source: Modrego (2006).

Now we will look at more detailed data for several countries in the region. Missing from the analysis are a few countries where smallholder agriculture is important, but for which there is a lack of recent and reliable analyses of the issues of interest to this paper. The absence of data for Mexico, Peru and Bolivia are particularly noteworthy; Mexico and Peru have recent Agricultural Censi, and Bolivia is scheduled to do one in 2011, and therefore it should be possible to close this important gap.

Argentina

The distribution of agricultural holdings by size is shown in table 2, according to data from the 2002 Agricultural Census. We can see that while smallholder farms of less than 5 hectares comprise the largest category in number (14% of the total), they account for less than 1 tenth of 1 percent in terms of land access; the standard 2 hectare definition of smallholders is useless in Argentina.

Table 2. Landholdings in Argentina

<i>Size (hectares)</i>	<i>Number</i>	<i>Area (hectares)</i>
Less than 5	40.957	105.895
5,1 – 10	22.664	177.973
10,1 – 25	39.833	714.584
25,1 – 50	33.787	1.290.129
50,1 – 100	34.881	2.660.005
100,1 – 200	34.614	5.150.390
200,1 – 500	40.211	13.113.229
500,1 - 1.000	21.441	15.261.566
1.000,1 - 2.500	16.621	26.489.560
2.500,1 - 5.000	6.256	22.525.345
5.000,1 - 7.500	2.088	12.962.493
7.500,1 - 10.000	1.285	11.546.633
10.000,1 - 20.000	1.851	27.296.370
20.000 and over	936	35.514.388
Total	297.425	174.808.564

Source: Agricultural Census 2002

The Inter-American Institute for Cooperation on Agriculture has defined an Argentinean family farm as that which is operated by the farm family, with no permanent salaried workers, and with a size limit that varies by macro-regions and provinces (Scheinkerman, 2009); this upper limit is estimated from the 2002 Agricultural Census data to range between 500 ha (in the Corrientes and Misiones provinces, where IFAD has had a number of projects) to 2,500 ha in the Patagonia (where an IFAD project is ongoing), and even to 5,000 ha in the Southern limits of the Patagonia. According to the IICA study (Scheinkerman, 2009), 75% of the Argentinean farms are family farms, and they control 31 million hectares of farm land (18% of the total).

Scheinkerman (2009) classifies Argentinean family farms in four groups:

- Type A: does not own a tractor, holds less than 50 equivalent cattle units, has less than 2 irrigated hectares, is not a fruit producer and does not practice greenhouse farming. This group has 113, 234 members and 5.9 million hectares of farm land.
- Type B: tractors are more than 15 years old, has between 51 and 100 equivalent cattle units or between 2 and 5 irrigated hectares, of which up to 0.5 ha may have fruit trees. This group has 58,602 members and 6.3 million hectares of farm land.

- Type C: tractors are less than 15 years old, has more than 100 equivalent cattle units, or more than 5 irrigated hectares or more than 0.5 ha with greenhouses or fruit trees. This group has 47,032 members and 11.4 million hectares of farm land.
- Type D: while this category shares some of the characteristics of Type C farmers, those in this group also employ one or two wage workers. This group has 32,248 members and 7.4 million hectares of farm land.

According to the same study, the Pampas with 72,000 family farms (158 ha/farm on average) and the Northeastern provinces with 71,000 family farms (91 ha/farm on average) account for 57% of all family farms in Argentina. Those in the Pampas, however, face a much more favorable environment than those in the Northeast.

Another study is that of Carmagnani (2008) that sets an upper limit for family farms at 500 hectares, but also excludes those of 50 hectares as belonging to a social category whose livelihood is mainly based on non-farm sources of income, including agricultural and non-agricultural wages and social policy cash and non-cash transfers. Carmagnani calls this group of less than 50 ha farms "sub-family farms", meaning that income from the farm activity is insufficient to sustain a family. He also defines an upper category of family farms that in several ways resemble corporate farms, for example, by employing permanent wage workers. Table 3 categorizes Argentinean farms according to Carmagnani's definitions and 2002 Agricultural Census data.

Table 3. A classification of family in Argentina

<i>Type of family farm</i>	<i>Number</i>	<i>Size (ha)</i>	<i>Area (ha)</i>	<i>Total labor</i>	<i>Workers per farm</i>
Subfamily	103,454	0 - 25	998,452	183,113	1.8
Family	103,282	25 - 200	9,100,525	182,986	1.8
Corporate-like	90,689	200 - max	164,709,587	415,660	4.6

Source: Carmagnani (2008) and Agricultural census 2002

Hence, according to Carmagnani (2008), family farms *strictu sensu* in Argentina would be 35% of the total and they hold about 9% of the farm land.

An IICA study published in 2007 (Scheinkerman et al., 2007) finds that 40% (or 132,272) of households registered in the 2002 Agricultural census, are poor. Poverty rates are highest in the Northwest (63%), the Northeast (59%) and the Patagonia (48%), and significantly lower in the Cuyo (27%) and Patagonia (21%) region, the latter being the one with the highest number of family farms.

Brazil

In Brazil a family farm is defined by the Family Farming Law (Law 11,326), based on four criteria:

1. Does not have under any tenure regime an area of more than four fiscal modules;
2. Predominantly relies on its own family labour;
3. The household income predominantly originates in the family farm; and
4. The family operates the farm.

Bollinger and Olivera (2010), however, have criticized the legal definition of family farming, on the basis that it excludes "hundreds of thousands" of households whose main income is not from the family farm. This is particularly important in a country that has seen a notorious expansion

of the non-farm rural economy, of Conditional Cash Transfer programs, and of a very successful universal pension scheme that includes rural households.

As shown in table 4, if one were to use the "2 hectare" criterion, there are slightly more than 1 million smallholder units in Brazil (20% of the total), holding 829,000 hectares (about two tenths of 1 percent). This concept grossly misrepresents the Brazilian smallholder sector as defined in the international literature and by Brazilian law.

Table 4. Landholdings in Brazil

<i>Size (hectares)</i>	<i>Number of farms</i>	<i>Area (1000 ha)</i>
Less than 2 ha	1,048,956	829
2 – 10	1,428,115	6,970
10 – 50	1,580,703	36,410
50 – 100	390,874	26,483
100 – 500	371,114	75,738
500 – 1000	53,792	36,958
1,000 - 10.000	44,889	105,845
10,000 and more	2,022	40,708
No land	255,024	-
Total	5,175,489	329,941

Source: Agricultural Census 2006 (IBGE, 2009).

The 2006 Agricultural Census in Brazil included a number of questions that allow for a direct measurement of the family farm sector, according to the legal definition in place in the country, that is consistent with the international literature. In 2006 there were 4.3 million family farms (84%) and 808,000 non-family farms in Brazil. The family farm sector controlled 80 million farmland hectares (24%).

According to a recent study (Soto et al., 2007), almost half of all Brazilian family farms are in the Northeastern region, followed by the South (22%) and the Southeast (15%). These are two contrasting environments: a more favorable one in the South and Southeast, and one that is notoriously unfavorable in the Northeast (as will be discussed in greater detail later in this paper). Again, the issue is not only one of how many smallholder farms there are how much land and other assets each one has on average, but of the context in which those families will use those assets and, hence, what is the productivity potential of those assets and what are the transaction costs that will be faced.

Table 5. Classification of family farms in Brazil

<i>Type</i>	<i>Number</i>	<i>Area (ha)</i>
A (consolidated)	406,291	24,141,455
B (transicional)	993,751	33,809,622
C (subsistence)	823,547	18,218,318
D (subsistence)	1,915,780	31,599,055
Total	4,139,369	107,768,450

Source: Soto et al., 2007.

Soto et al. (2007) categorized family farms using 2006 Brazilian Agricultural Census data, as shown in table 5. According to the authors, two thirds of the 4.1 million family in Brazil, with a total of almost 50 million hectares (18 ha per farm, on average), belong to the "subsistence" group. The intermediate group, or 'transitional', includes 24% of the family farms, that control 34 million hectares (31%), with an average farm size of 34 ha. Finally, there is a category of 40

thousand 'consolidated' family farms, that controls about 7% of the farmland of the family farming sector, with average holdings of 59 hectares.

Carmagnani (2008) implicitly coincides with the legal definition, by concluding that landholdings of less than 5 hectares should not be considered part of the family farming group, stating that "less than 6% of their income is cash farm income" and, hence, their livelihood is based on wage labor and other non-farm sources. According to this author, family farming is limited to holding between 5 and 100 hectares, but he states that even the 5-20 hectares group faces great difficulties in making a living out of a family farm. Carmagnani (2008) concludes that only 35% of the units officially categorized as family farms, with a total of 54.4 million hectares, would fit his more stringent definition of family farms that can derive most or all of their income from the farm and not from non-farm sources.

Chile

According to the 2007 Agricultural Census, 43% of the agricultural landholdings in Chile have 5 hectares or less of land, but they control less than 1% of the total farm land in the country.

Table 6. Landholdings in Chile

<i>Size (ha)</i>	<i>Number</i>	<i>Area</i>
1 or less	34,699	17,924
1 - 5	84,975	209,798
5 - 10	46,139	325,199
10 - 20	42,611	595,899
20 - 50	36,965	1,145,153
50 - 100	14,911	1,028,222
100 - 200	8,149	1,125,248
200 - 500	5,677	1,736,508
500 - 1000	2,056	1,414,034
1000 – 2000	1,048	1,440,757
2000 and more	1,430	20,742,944
Total	278,660	29,781,690

Source: INE, 2007.

A study by Echenique and Romero (2009) defines family agriculture according to the legal and operational criteria used by the Ministry of Agriculture of Chile, with an upper limit of 12 "basic irrigated hectares" (BIH). The study concludes that those below 2 BIH derive most of their income from non-farm sources, so that the relevant group are those families that farm between 2 and 12 BIH.

After converting land to irrigated land equivalents (BIH), Echenique and Romero (2009) conclude that there are about 195 thousand farms (70%) of less than 2 BIH, holding about 1.2 million hectares (6% of the total). This would be the group of subsistence farming by households that derive a large proportion of their income from non-farm sources. The next category in table 7 would be that of family farms, that represent about 23% of the total number of agricultural holdings, with approximately 13% of the total farmland, and an average farm size of 38 BIH.

Table 7. Classification of farms in Chile according to farm size standardized according to biological yield potential

Type	Number of holdings	Area (ha)
Less than 2 BIH ^(a) (subsistence farms)	195,309	1,205,243
2-12 BIH (family farms)	67,795	2,599,044
12 - 60 BIH	19,351	3,306,614
60 and more BIH	5,331	13,335,119
Total	287,786	20,446,020

(a) BIH = basic irrigated hectares, and equivalency to the biological yield potential of 1 irrigated hectare in the Maipo valley

Source: Echenique and Romero (2009)

Jara et al. (2009) use 2007 Agricultural Census data on farm size, farm labor, percentage of the family income derived from work on the farm, and access to markets, to classify Chilean farms in six categories (table 8). Of them, three correspond to the group that is relevant to smallholder policies. The first category, subsistence rural households, includes 38% of all farms in Chile, and those in this group rely to a significant degree on self-consumption of agricultural produce and public cash and non-cash social subsidies. The second group, with 16% of all farms, is similar to the previous one, except that here non-farm income is more prominent. The third category is that of "peasant family farms", referring to farm families that derive their livelihood predominantly from their own work in the farm; this group includes about 30% of all farms in Chile.

Table 8. Classification of family farms in Chile, 2007 Census

Type	Number of farms
Self-consumption rural household	74,459
Pluriactive rural household	30,224
Peasant family farms	58,379
Non-peasant family farms	1,569
Semi-commercial non-family farms	14,189
Corporate agriculture	15,706
Total	194,526

Source: Jara et al., 2009.

Soto et al. (2007) revisit the 1997 Agricultural Census data and classify Chilean farms in the three categories that we have already described. A first result is that family farms represent 87% of all Chilean farms, controlling only 13% of the farmland; the average farm size of a family farm in Chile is 23 hectares. The 'subsistence' group in Soto et al.'s classification is the largest, with about 54% of all family farms, and 48% of all farms, but with only 5% of the total farmland, and with an average farm size of 17 hectares. The group of 'transitional' family farms includes 120 thousand units, about 37% of all farms in Chile, while controlling 6% of all farmland, with an average farm size of 27 hectares. Finally, 'consolidated' family farms are only 3% of all Chilean farms, and they only control 1% of the farmland; the average farm size of this group is of 66 ha.

Unfortunately, the studies of Soto et al. (2007) and of Jara et al. (2009) that use, respectively, the 1997 and the 2007 Agricultural Censi of Chile, are *not* comparable because they used different criteria and assumptions in their classifications. It is a pending task to know if any of these groups is growing in relative importance.

Table 9. Classification of family farms in Chile, 1997 Census

Type	Number	Area (1000 ha)	Average Area
Subsistence	154,820	2,656	17.2
Transitional	120,626	3,214	26.7
Consolidated	8,942	589	66.0
Total family farms	284,388	6,460	22.7
Non-family farms	41,127	44,840	1,090.3
Total	325,515	51,300	155,7

Source: Soto et al. (2007), based on 1997 Agricultural Census data

Table 10. Landholdings in Colombia

Size	Number	Area (ha)
1 or less	366,244	191,820
1 - 3	465,025	844,523
3 - 5	236,633	899,925
5 - 10	291,752	2,042,050
10 - 20	225,238	3,127,283
20 - 50	219,912	6,884,453
50 - 100	108,715	7,487,517
100 - 200	55,906	7,566,533
200 - 500	40,797	11,598,122
500 and more	11,669	10,063,221
Total	2,021,891	50,705,447

Source: FAO, 2010

Table 11. Landholdings of less than 20 ha in Colombia, per Department

Departament	Less than 10 Ha.		10 – 20 Ha.	
	Number	% in the department	Number	% in the department
Antioquía	74.571	55%	19.838	15%
Atlántico	14.368	100%	0	0%
Bolívar	12.133	39%	0	0%
Boyacá	392.259	91%	22.726	6%
Caldas	20.339	66%	3.805	13%
Cauca	188.176	86%	17.237	8%
Córdoba	22.641	42%	8.872	16%
Cundinamarca	180.175	80%	22.496	10%
Huila	58.576	69%	11.010	13%
La Guajira	7.666	48%	0	0%
Magdalena	7.259	24%	4.477	16%
Meta	13.310	27%	5.817	12%
Nariño	171.201	91%	10.632	6%
Nte de Santander	29.657	47%	13.277	21%
Quindío	9.448	73%	1.722	13%
Risaralda	21.296	82%	2.294	9%
Santander	51.628	52%	19.918	19%
Sucre	16.851	48%	7.281	21%
Tolima	58.412	60%	16.780	17%
Valle del Cauca	29.421	60%	0	0%
Casanare	10.112	47%	0	0%
Other Departments	40.063	21%	35.868	18%
Total	1.429.562	69%	224.050	11

Source: National agricultural survey (2004), in Forero (2010)

Colombia

According to the 2001 Agricultural Census of Colombia, there are about 400 thousand farms that fit the "2 hectare" smallholder definition; they control less than one half of one percent of the total land. As in other countries, this definition is of little use.

Forero and Galeano (2010) have estimated the number of smallholders per Department of Colombia on the basis of the 2004 National Agricultural Survey. They generate two estimates, one with a 10 ha cut-off point and another one with 20 ha (table 11). The sum of both groups gives a total of 1.7 million farms of less than 20 ha. Four Departments (Boyacá, Cauca, Cundinamarca and Nariño, in that order), house two thirds of all farms of less than 10 ha. When it comes to farms between 10 and 20 ha, Cauca and Nariño are replaced in the ranking by Santander and Antioquia, and these two Departments plus Boyacá and Cundinamarca account for almost 40% of all farms in this class.

In twelve of the 22 Departments reported by Forero and Galeano (2010), smallholdings of less than 10 ha make up 50% or more of the total number of farms. If one considers the 20 ha cut-off point, another three departments join the group of those with a majority of smallholders.

Of the "self-employed in agriculture" households, almost 44% are in the Western region (according to the regional classification of the Regional Economic and Social Planning Council), 26% in the Center-East region, and 25% in the Atlantic region.

The self-employed in agriculture Colombian households are further classified by Soto et al. (2007) in three distinct groups, according to their total household incomes. Unfortunately we have no information about landholdings, but we do have estimates of monthly household incomes (table 12).

Table 12. Classification of family farms in Colombia

Type	PPP US\$ monthly	Number
Subsistence	< 579.2	585,540
Transitional	579.2 – 1,158.4	95,316
Consolidated	>1,158.4	57,093
Total	-	737,949

Source: Soto et al. (2007),

Ecuador

According to the "2 hectare" definition, smallholder agriculture in Ecuador includes 29% of all farms, but controls only 0.7% of the land (table 13). Clearly, this definition does not serve any useful policy or analytical purpose in this country. In only six of the

Forero and Galeano (2010) estimated the distribution of smallholdings of less than 10 ha and of 20 ha in Ecuador, with data from the 2000 Agricultural Census (table 14). They conclude that there are 635,000 family farms in the country, of which 84% are of less than 10 ha. The provinces of Azuay, Chimborazo, Tungurahua, Cotopaxi and Pichincha, in that order, contain 58% of all farms of less than 10 ha. In 16 of the 22 provinces reported by Forero and Galeano (2010), smallholders represent 50% or more of the total number of farms.

Table 13. Landholdings in Ecuador

<i>Size (ha)</i>	<i>Number</i>	<i>Area</i>
Less than 1	248,398	95,834
1 – 2	117,660	156,016
2 – 3	78,850	183,354
3 – 5	90,401	339,021
5 – 10	101,066	688,987
10 – 20	75,660	1,017,807
20 – 50	76,792	2,372,027
50 – 100	34,498	2,242,409
100 - 200	12,941	1,666,879
200 and more	6,616	3,593,496
TOTAL	842,882	12,355,831

Source: National Census of Agriculture 2000.

Table 14. Landholdings of less than 20 ha in Ecuador, per Province

<i>Departament</i>	<i>Less than 10 Ha.</i>		<i>10 – 20 Ha.</i>	
	Number	% in the Province	Number	% in the Province
Azuay	80.128	80%	9.537	10%
Bolívar	22.402	58%	6.450	16%
Cañar y el Piedrero	25.188	78%	3.357	10%
Carchi	7.171	56%	2.582	20%
Chimborazo	68.289	84%	7.352	9%
Cotopaxi	54.319	80%	5.856	9%
El Oro	10.050	45%	3.586	17%
Esmeraldas, Golondrinas y Concordia	2.689	12%	1.852	10%
Guayas	34.602	53%	12.893	20%
Imbabura	26.228	78%	2.743	8%
Loja	33.754	51%	12.016	19%
Los Ríos	19.596	47%	8.931	21%
Manabi y Manga del Cura	36.474	48%	11.542	15%
Morona Santiago	2.046	12%	1.186	7%
Napo	596	12%	401	7%
Orellana	459	8%	511	8%
Pastaza	1.008	19%	158	3%
Pichincha	41.418	65%	6.330	10%
Sucumbios	577	7%	585	8%
Tungurahua	67.069	94%	2.282	3%
Zamora Chinchipe	700	8%	342	4%
Total	534.763	63%	100.492	12%

Source: Agricultural census (2000), in Forero (no date).

Soto et al. (2009) analyze the 2000 Agricultural Census and find that family agriculture includes 88% of all farms and 41% of the farmland (table 15). Using the same types already reported above for other countries, they conclude that the 'subsistence' group included almost half a million farms (54%), with about 2.5 million hectares of land (20%), and average farm size of 5.5 ha. The second category, 'transitional' farms includes 33% of all farms, 15% of the farmland, with an average farm size of 7 ha. Finally, the group of 'consolidated' family farms includes

slightly less than ten thousand units that control 5% of the farmland, with average farm size of 66 ha. It should be noted that the average farm sizes of 'consolidated family farms' and 'non-family farms' are not too different (66 ha and 77 ha, respectively) again driving home the message that in this day and age, land is important but hardly sufficient to determine the potential of a farm.

Table 15. Classification of family farms in Ecuador

<i>Type</i>	<i>Number</i>	<i>Area</i>
Subsistence	456.108	2.510.254
Transitional	274.064	1.932.621
Consolidated	9.780	640.948
Total family farms	739.952	5.083.823
Non-familii farms	102.930	7.272.008
Total	842.882	12.355.831

Source: Soto et al., 2007.

Table 16 shows the regional distribution of the different types of family farms in the Soto et al. (2007) classification. First of all, a healthy 36% of family farms are located in the Coast, which generally speaking can be said to be a better or more conducive environment for agricultural development; it is not a surprise that there are fewer subsistence farms in the Coast than in the Andean highlands. Transitional family farms are more or less equally distributed in the Coast and in the Highlands, while consolidated family farms also have a strong presence in the Amazon basin, probably linked to coffee, cocoa and cattle production.

Table 16. Regional distribution of different types of family farms (Percentage)

<i>Type</i>	<i>Subsistence</i>	<i>Transitional</i>	<i>Consolidated</i>	<i>Total family farms</i>
Coastal plains	31	44	43	36
Highlands	62	51	36	58
Amazon basin	7	5	20	6
Total	100	100	100	100

Source: Soto et al., 2007.

An interesting piece of information comes from the Soto et al. (2007) study, that helps to put the issue of farms size (assets) versus farm context in perspective. On average, a subsistence farm in the Coastal plains is twice as large as one in the Andean highlands, while one in the Amazon basin is eight times larger. At the same time, a farm of 4.5 ha in the Andes is already 'transitional', while one of 25 ha in the Amazonian basin is still in the 'subsistence' group. Clearly, farm size is a criterion that used alone will lead to wrong strategic and policy decisions.

Carmagnani (2008) takes a more restrictive approach, since he considers that family agriculture is distinct from subsistence agriculture, where the family depends to a large extent on non-farm income. Using this classification, he estimates that there are over half a million subsistence farms (63% of the total), holding about 6% of the land. Family agriculture includes a quarter of a million farms, with one third of the land. Finally, corporate farms are only 6% of the total, but they control 61% of the total farmland. According to this analyst, the size of subsistence farms is on average 1.44 ha, while that of family farms are 11 times larger (16 ha on average).

Guatemala

The 2003 Guatemalan Agricultural Census found 830 thousand farms in the country, of which around 76% would be smallholders according to the "2 hectare" definition (table 17). These farms control about 13% of the 3.7 million ha recorded in the census, a very high proportion for LAC standards. Yet, this definition leaves out a sizable proportion of what would constitute smallholders or family farmers under the international consensus of farms operated by farm families with no or little wage labor.

Table 17. Landholdings in Guatemala

<i>Size (ha)</i>	<i>Number</i>	<i>Area (ha)</i>
0,4 - 0,7	375,708	121,655
0,7 - 1,4	185,196	170,976
1,4 - 3,5	157,681	317,124
3,5 - 7,1	46,099	210,296
7,1 - 22,6	39,599	475,998
22,6 - 45,2	10,929	332,138
45,2 - 452	14,593	1,299,209
452 - 903,2	610	361,983
903,2 - 2258	222	284,784
2258 - 4516	37	114,187
4516 - 9032	9	50,973
9032 and more	1	11,530
Total	830,684	3,750,853

Source: FAO, 2010.

Fradejas and Gauster (2006) classify Guatemalan farms in four groups (table 18). The first two categories, which they call "infra-subsistence" (household members cannot possibly survive based on farm production and income alone) and "subsistence" account for a staggering 92% of all farms, but they only control 22% of the land. The situation of the first group is worth noticing: 45% of the farms with less than 3% of the land, or half a hectare per household. Clearly it is not possible to expect that this group of Guatemalan families will base their livelihood strategies on self-employment in agriculture.

Table 18. Classification of family farms in Guatemala

<i>Size (hectares)</i>	<i>Number</i>	<i>Area</i>	<i>Average area</i>
< 0.7 (less than subsistence)	375,708	172,413	0.46
0.7 - 7 (subsistence)	388,976	989,791	2.5
7-45 (surplus)	50,528	1,145,318	22.7
> 45 (commercial)	15,472	3,008,316	194.4
Total	830,684	5,315,838	6.4

Source: Fradejas and Gauster (2006).

The second and third groups of the Fradejas and Gauster (2006) classification would likely be prioritized by smallholder policies. Together they account for over half of all Guatemalan farms, and they control 41% of the land, with an average farm size of slightly less than 5 ha.

Nicaragua

According to the 2001 Nicaraguan Agricultural Census, there are about 40 thousand farms of less than 2 hectares, controlling 77 thousand hectares, that is, just over 1% of the total farmland (table 19). If the "2 hectare" criterion for defining what is a smallholder had any real meaning, the past 30 years or so of Nicaraguan history, including a revolution, an Agrarian Reform, and a civil war, would have to be described as an example of a major conflict over nothing.

Table 19. Landholdings in Nicaragua

<i>Size</i>	<i>Number</i>	<i>Area</i>
Less than 0.4	7,337	1,936
0.4 - 0.7	10,745	7,146
0.7 - 1.8	21,379	28,389
1.8 - 3.5	26,517	72,808
3.5 - 7	28,576	159,300
7 - 14	27,022	298,717
14 - 35	38,780	982,308
35 - 70	21,684	1,172,423
70 - 140	10,746	1,139,997
140 - 350	5,169	1,153,030
350 and more	1,594	1,238,462
Total	199,549	6,254,516

Source: FAO, 2010.

At the same time, it is not reasonable to think that under the conditions of the Nicaraguan rural sector, a family can sustain its livelihood on the basis of an average farm size of 1 ha (for the three first lines in table 17). For this reason Carmagnani (2008) argues that the bottom limit of Nicaraguan family farming is at around 5.6 hectares, while the upper limit is at about 50 hectares.

If Carmagnani is right, then the family farming sector in Nicaragua is made up of about 90,000 farms (45% of the total), with about 1.8 million hectares (29% of the total farmland), and average farm sizes of about 20 hectares. Below that there would be a sector of about 80,000 subsistence farmers with about 160,000 ha (2 ha/farm)

Soto et al. (2007) categorize Nicaraguan family farmers in the three groups with which we have seen in other countries in this paper. They base their report on the 2001 National Household Survey, and not on the Agricultural census. However, their analysis needs to be considered with much care since the authors -after expanding the survey data- arrive at 293,000 farms in the country, that is, 50% more than the number of farms accounted for in the 2001 Agricultural Census. In the absence of the Soto et al. (2007) classification, we lack any other source to group Nicaraguan smallholders within a good typology.

Uruguay

Uruguay is a small country with only 57,000 farms, according to the 2000 Agricultural census (table 20). Farms of less than 2 ha are less than 3 or 4%, and they control about one tenth of one percent of the land. This category is therefore meaningless for any analytical or policy purpose.

Table 20. Landholdings in Uruguay

<i>Size</i>	<i>Number</i>	<i>Area (1.000 ha)</i>
1 - 4	6,260	17
5 - 9	7,086	48
10 - 19	7,118	98
20 - 49	8,934	285
50 - 99	6,647	473
100 - 199	6,382	910
200 - 499	6,783	2,163
500 - 999	3,887	2,726
1,000 - 2,499	2,912	4,442
2,500 - 4,999	838	2,837
5,000 - 9,999	228	1,505
10,000 and more	56	918
Total	57,131	16,420

Source: National Census of Agriculture 2000.

Carmagnani (2008) proposes that all units of more than 100 hectares are corporate farms that do not belong to the family farm sector. At the same time, he argues that the lower boundary of this sector is of about 10 ha, below which a family has to rely on non-farm sources of income. Projecting this analysis to the 2000 Census data, one would conclude that with this restricted definition, the family farm sector in Uruguay is made up of about 23,000 farms (40% of the total), that control about 856,000 hectares, with an average farm size of 37 hectares. If one considers the "subsistence" sector it would add 13,000 farms but only 65,000 ha, thus reducing average farm size significantly to 25 ha.

In summary

In summary, a detailed reading of the best estimates of the size of smallholder agriculture in LAC, allow us to conclude that it is made up of around 15 million farms. About 65% correspond to a category of smallholders that rely significantly and perhaps increasingly on non-farm sources of income to sustain their livelihoods; for them, agriculture complements other activities, and remittances and cash and in kind social transfers and supports are of great importance. Still, this group owns or controls about well over 100 million hectares. Even if small, the income derive from this land is absolutely critical for their survival and to reduce their vulnerability to shocks of all kinds. Many if not most in this group would be considered poor. Yet, an agriculture-based or agriculture-led development strategy, would miss the fundamentals in the case of this group.

A second category is those family farmers that indisputably and most clearly meet the criteria considered by most authors. Their livelihood predominantly depends on the operation of their farms, they hire little or no non-family labor, and therefore they operate and manage their farm with the members of the farm family. They are integrated in agricultural markets, but face significant challenges derived from the limits of their own household and farm assets, and because of the imperfections of factor and product markets, and the gaps and limitations of institutional frameworks of all kinds. This group is made up of about 4 million small farms, who control around 200 million hectares of farmland. The contribution that this group makes to feeding Latin America and, increasingly, other regions of the world, cannot be underestimated. Because they are deeply embedded in the local economies, their agriculture-based development has production and consumption linkages that makes them important local and regional players. This is a group made invisible by the definition of smallholders according to the 2 hectare

criterion, but at least in LAC, we believe that they represent the best bet for the revitalization of rural societies.

The third and final component of the smallholder sector in LAC, are farms that are at the border between the family farm and the corporate agriculture sectors. The key factor that distinguishes from the previous group is that these farmers routinely hire non-family labor to help with the farm operations. Yet, at least some of the family members continue to be engaged in the operation of the family farm, and certainly in its management functions. Of course, these are fully commercial farms, many of them highly competitive, that are behind many of the recent booms that have put Latin American agriculture in the global map of food production. There are probably slightly more than 1 million of these farms (about 8% of the total smallholder sector), and they control about 100 million highly productive hectares. As in the case of the second group, because of the forward and backward linkages with other sectors of the local and regional economy, and also because of the labor they hire, these farmers are crucial players in the rural economies of Latin America.

4. The proximate context of smallholders

A key proposition of this paper is that the performance and the development potential of smallholders in LAC, depends to a very significant degree on the characteristics of the proximate *context* in which they make decisions. While this statement is not controversial, it is nevertheless true that the vast majority of the smallholder development programs and policies are aimed at improving the *assets* of the farm, of the farm family or of the farmer, with little effort to changing or influencing contexts.

We will argue that, unfortunately, vast areas of LAC currently present contexts that are quite unfavorable for the development of smallholder agriculture. Under such conditions, investing in farm, farm family or farmer assets is unlikely to yield the results intended by policies and programs.

In our opinion, this is a major factor that helps explain why the agricultural boom experienced in many LAC countries since the late 1990's and early 2000's, did not translate into higher rates of rural poverty reduction, that is, why agriculture did very well but a very large contingent of farmers did not (da Silva et al., 2009). It should be noted that the agricultural boom of the early 2000's was reinforced by the strong reduction of the net implicit taxation that affected agriculture and farmers' incomes until the 1980s (Anderson and Valdés, 2008). That is, both the macroeconomic context and the agricultural sector's trends were very favorable, and yet the evidence is that in several countries smallholders failed to benefit and that rural poverty reduction was mainly due to other sources of employment and of income.

Local economic growth and poverty reduction

What have we learned about the interaction between proximate context and dynamism of smallholder agriculture?

Petrolina-Juazeiro, an area of 53,000 square kilometers and 510,000 inhabitants in the states of Bahia and Pernambuco in Brazil, was no different than most of the rural areas in the Northeastern region. Its economy was based on a stagnant agriculture, dominated by the production of cotton, livestock, and subsistence crops. From the mid-1990s to 2006, a public corporation implemented six projects with close to 46,000 hectares of irrigated lands that led to the emergence of more than 200 agricultural firms, about 2,200 small farmers, and more than

100,000 wage workers (40 percent of which were women) with incomes and wages way above the region's average producing high value crops for export (Damiani, 2006).

The Salinas district (in the Bolivar Department of Ecuador, in the Andes, where the majority of the population are Quechua Indians) is today nationally renowned for the high quality of its cheese production, having 22 small and medium cheese factories linked to 28 savings and loan cooperatives that cover the whole territory. Marketing is done through their own outlays, as well as through supermarkets and pizza parlors (exhibiting their trade mark, "El Salinerito") and exports are made through Camari, a development NGO. A series of other local manufacturing activities were derived from its development, including hams and cold meats and toys from native woods.⁷

One of the main lessons learned from this type of successful agricultural development experiences with smallholders in a prominent position, is that economic growth with social inclusion is not only about what happens in the farms of smallholders, or even in their communities and organizations. Such development outcomes involve whole territories, with a multitude of inter-linked actors (poor and non-poor, agrarian and not, urban and rural, private and public) that mobilize complementary assets and capabilities. We submit the hypothesis that in Latin America today, the condition of this proximate context is a far more important determinant of the performance and opportunities of smallholders, than what happens in the farm, or the peasant community or the producers' organization.

Dynamic agricultural systems are increasingly characterized by strong linkages with services and industry that lead to income and employment diversification (at the territorial and household levels). Backward and forward production linkages to suppliers of inputs and equipment and to processors and traders, tend to increase in importance and complexity as agriculture develops. Of particular relevance is the accelerated transformation of the agrifood systems in developing countries, where supermarkets and other large national and FDI-based industries are becoming the main destiny of agricultural products. The impact of these trends on local incomes and employment will depend on the degree of openness and competitive capacity of the economy and on the relative weight of the modern retail systems.

Production and consumption linkages to agriculture can also originate in other sectors of the economy, as when an agro-industry creates new procurement options (like in contract agriculture) or when non-farm but rural-based activities (e.g., tourism) generate or increase the demand for locally-produced food. Labor market linkages derived from the seasonal nature of agricultural employment can stimulate rural non-farm activities in the slack periods.

Rural-urban linkages are a consequence of the mostly urban location of industrial processing and related services. The nature and intensity of the links between the agricultural hinterland and urban nuclei are critical to the development of dynamic agrifood systems. Cities have been an important source of generation and dissemination of agricultural technology. Since capital, inputs, labor and product markets tend to be less imperfect in the urban environment, spillover effects to neighboring agricultural areas can lead to a increased smallholder farm productivity, better prices for smallholder products, and higher wages in the agricultural labor markets.

In short, the opportunities that smallholders will be able to take advantage of, as well as the challenges they will face, depend to a very large extent of the dynamics of economic growth, with or without social inclusion, in their proximate geographic context.

⁷ Manuel Chiriboga, personal communication.

A series of publications have recently documented changes in the past decade or so in different indicators of economic and social development at the local (municipal) level in 11 LAC countries (Damianović et al. 2009, for El Salvador; Escobal y Ponce 2008, Peru; Favareto y Abramovay 2009, Brazil; Fernández et al., 2009, Colombia; Flores et al. 2009, Honduras; Gómez et al. 2009, Nicaragua; Hinojosa et al. 2009, Bolivia; Larrea et al., 2008, Ecuador; Modrego et al., 2008, Chile; Romero y Zapil 2009, Guatemala, and; Yúnez-Naude et al. 2009, Mexico). The authors have collectively processed census and household survey data for 400 million persons, in 10 thousands municipalities; the studies cover 80% of the population of LAC.

Table 21. Changes in per capita income or consumption and in incidence of poverty

Context	Population		Municipalities	
	N° ('000)	%	N°	%
Changes in average per capita income or consumption				
Significant increase	133,952	34	4,245	41
No positive change	265,556	66	6,176	59
Total	399,509	100	10,421	100
Changes in headcount poverty				
Significant decrease	136,127	34	4,818	46
No positive change	263,381	66	5,603	54
Total	399,509	100	10,421	100
Combined changes				
Positive change in average income/consumption and headcount poverty	95,730	24	3,389	33
Positive change in average income/consumption but not in headcount poverty	38,221	10	856	8
Positive change in headcount poverty but not in average income/consumption	40,396	10	1,429	14
No positive changes in either indicator	225,160	56	4,747	46
Total	399,509	100	10,421	100

Table 21 summarizes data from these 11 studies, for two important dimensions: changes between the late 1980's or early 1990's and the early-mid 2000's in average per capita income (a proxy of economic growth) and incidence of poverty (or headcount poverty), both at the level of municipalities (except for the study of Peru, that looks at provincial districts, and for Ecuador, that looks at sub-municipal entities called *Parroquias*). The first four rows of table 1 show that the majority (66%) of the population of these 11 countries, live in over 6,000 municipalities (59% of the total) that have not experienced economic growth as indicated by the lack of positive and statistically significant change over this period of time.

The second group of four rows in Table 21 show similar results for changes in the incidence of poverty: two thirds of the population live in slightly more than half of the municipalities that have seen no significant poverty reduction over the period covered by these studies.

Finally, the group of five rows at the bottom of Table 21 look at the combinations of both indicators of development. Only one fourth of the population of these 11 countries (that is, about 20% of the population of LAC) live in places that have experienced growth *with* poverty reduction in the past decade or so. What is distressing is that around 50% of the population and also of the municipalities, are in a lose-lose position, that is, no economic growth and no poverty reduction either.

One could tentatively conclude that most smallholders will experience unfavorable environments where there is no economic growth and/or such growth is not socially inclusive or

"pro-poor". However, smallholders are not randomly distributed in space, and it could well be that they could be mostly concentrated in regions where conditions are generally more favorable. Unfortunately, there are no studies that systematically tell us *where* smallholders are located in each country; we can only give an approximate answer looking in greater detail at some of the data of the studies summarized in Table 21. We can explore this issue in the case of Brazil, thanks to the data of the Favareto and Abramovay (2009).

Table 22 presents data for three macro-regions of Brazil. The Brazilian Northeast is a region with very large numbers of smallholders, many of them poor; the Center-West region is one of large scale corporate agriculture; finally, the South is a rich region with many fully commercial and very competitive family-owned and operated farms. The numbers in Table 22 confirm that the smallholders in the Northeast would face much more challenging proximate contexts, compared to the other two regions. In the Northeast there are fewer municipalities experiencing economic growth (44%), poverty reduction (71%), or growth with poverty reduction (39%), compared to the Center-West (51%, 77% and 42%, respectively) and the South (63%, 86% and 56%, respectively). That is, it is very likely that the same smallholder development policy, with the same instruments, and the same level of investment per farmer, would yield less positive results in the Northeast, where family farmers have to fight against a more adverse context than in the South where family farmers can ride the wave of a vibrant territorial context.

However, what is perhaps more important is that even within the adverse Northeast region, there are 564 municipalities (39% of the total in the macro-region), clustered in around 40-50 territories, where smallholders face a favorable proximate context of economic growth with poverty reduction. Conversely, in the favorable and rich Southern region of Brazil there are over 120 municipalities, clustered in about 15 or so territories, where smallholders would face a context of economic and social stagnation.

Table 22. Changes in per capita income or consumption and in incidence of poverty in regions of Brazil
(Percentage of municipalities)

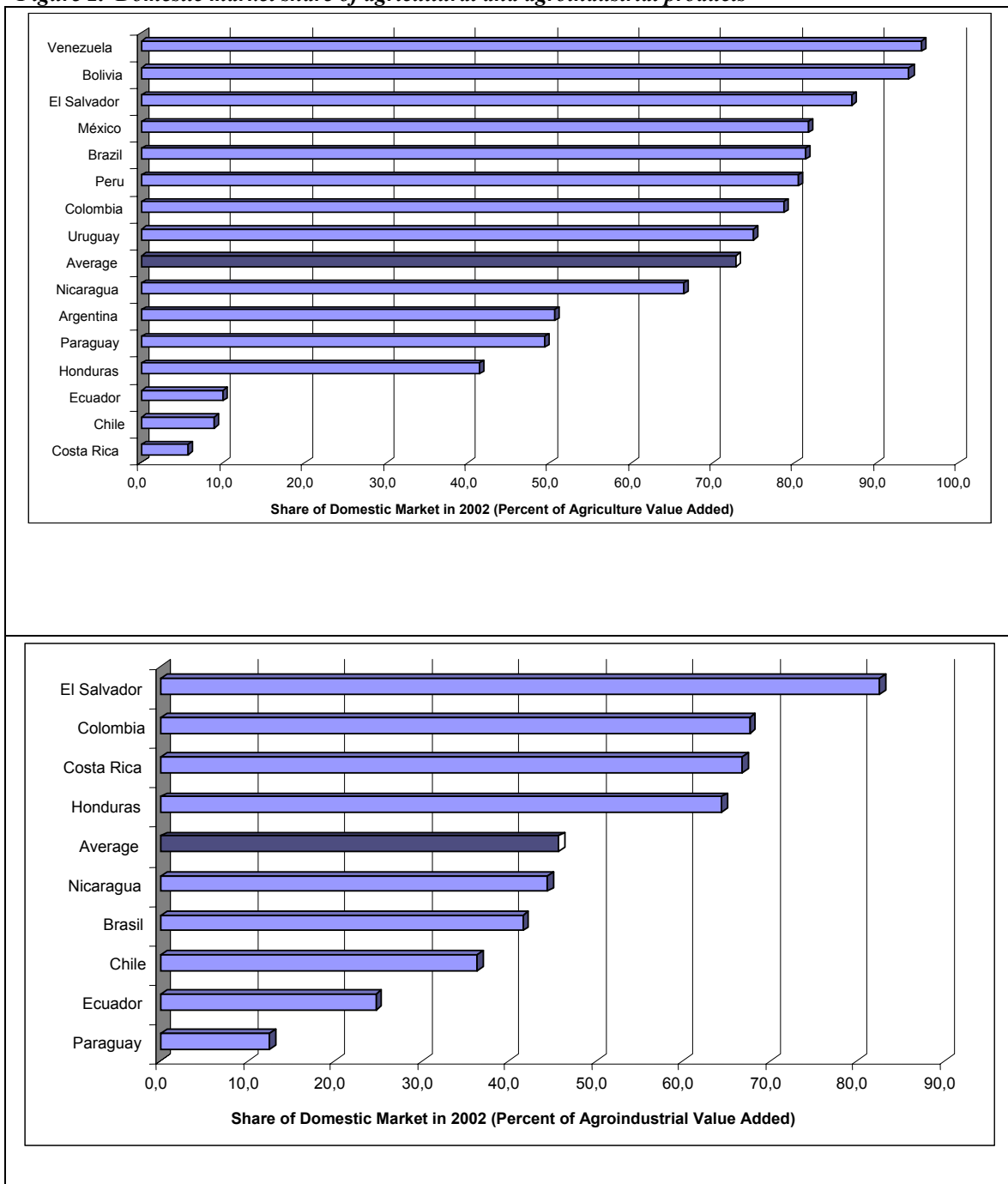
Context	North-East	Center-West	South
Changes in average per capita income or consumption			
Significant increase	44	51	63
No positive change	56	49	37
Total	100	100	100
Changes in headcount poverty			
Significant decrease	71	77	86
No positive change	29	23	14
Total	100	100	100
Combined changes			
Positive change in average income/consumption and headcount poverty	39	42	56
Positive change in average income/consumption but not in headcount poverty	5	10	7
Positive change in headcount poverty but not in average income/consumption	32	36	30
No positive changes in either indicator	25	13	7
Total	100	100	100

Source: Authors with data from Favareto and Abramovay (2009)

Trends in agrifood markets

For many good reasons, much of the political and policy emphasis in the region since after the end of the structural adjustment processes, has been placed on creating favorable conditions and capacities to access global markets, with a special interest on the promotion of non-traditional exports (NTEXs). This interest has been spurred by the numerous trade agreements signed by a majority of the countries in the region. However, one could argue that this interest has often been accompanied by an unwarranted neglect of policies to improve and exploit the domestic food markets.

Figure 2. Domestic market share of agricultural and agroindustrial products



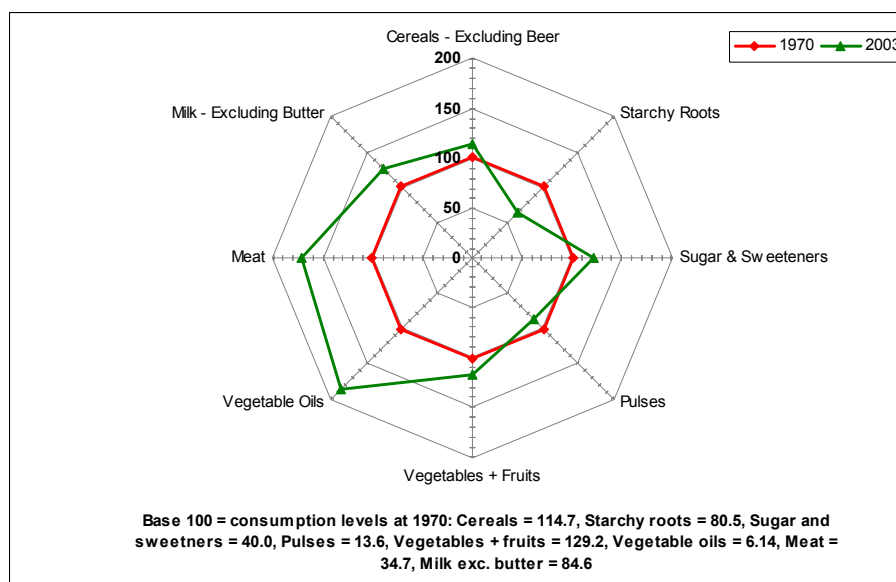
Source: Berdegué et al. 2006.

In the case of 16 Latin American countries that collectively represent more than 80 percent of the regional agricultural GDP, the domestic market consumes 73 percent of the agricultural output; the figure is 46 percent in the case of agroindustrial products in nine countries (figure 2). Even in the case of fresh fruits and vegetables, where the non-traditional export market receives much attention from international agencies and national policy-makers, it has been estimated that the sales of supermarkets in domestic markets represent over 1.5 times the value of the fresh fruit and vegetable exports from the region (Reardon and Berdegú 2002). In 2003, domestic food sales by modern retailers in LAC, amounted to over \$ 169 billion (Reardon and Berdegú 2006).

Driven by demographic growth, urbanization, and dietary transitions, markets within developing countries for agricultural products are growing at a faster rate than those in the industrialized countries. Between 1998 and 2002, sales of Nestlé and Unilever respectively grew by 7 and 3.2 percent in Europe and by 29.8 and 8.3 percent in Latin America, and sales of packaged products in 1996-2002 grew by 29 percent in lower-middle income countries, compared to only 3 percent in high income countries (Wilkinson and Rocha 2006).

In short, the domestic market in LAC as a region and in most of its countries individually, is the largest and the fastest growing market for agricultural products. This creates important opportunities for agricultural growth. The domestic markets in all LAC countries are also rapidly changing in their structure and in the way they work. Figure 3 illustrates the changing consumption pattern of the Latin American and Caribbean people; not only do they eat 22 percent more food per capita than 30 years ago, they also eat differently (in particular, more meat, dairy products, fresh fruits and vegetables, and vegetable oils).

Figure 3. Changing patterns of food consumption in Latin America and the Caribbean, 1970-2003
(Food per capita per year in kg, base 1970=100)



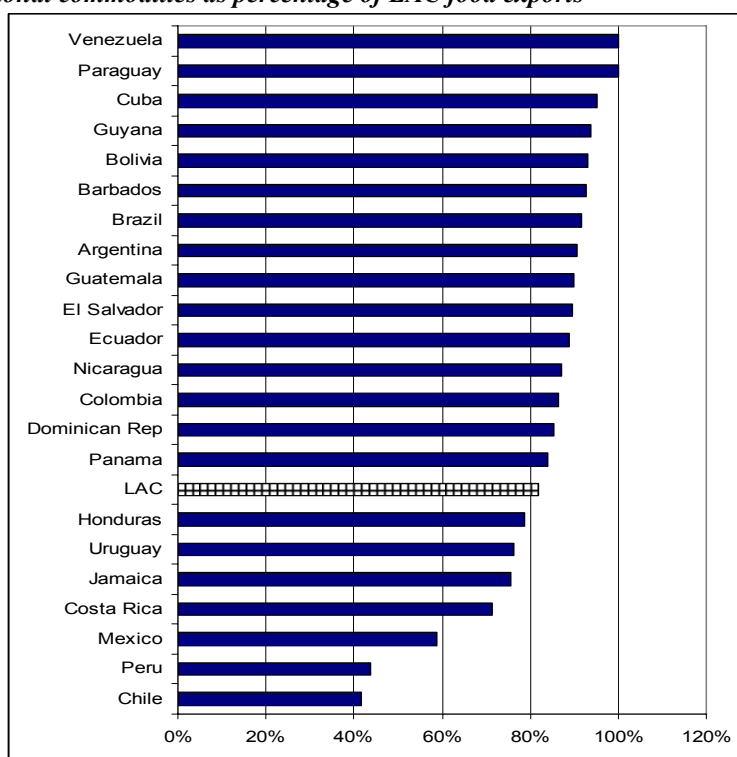
Source: FAOSTAT (Food Balance Sheets)

Due to liberalization of Foreign Direct Investment policies and to trade agreements, it is becoming more difficult for LAC farmers to compete and to meet the conditions of the rapidly changing domestic markets. Long gone are the days when domestic markets were those of

inefficient wholesale markets and informal intermediaries. Today, the new domestic food markets in LAC are dominated by supermarket chains, giving rise to four major trends in food procurement systems: extension and integration of catchment areas, reliance on specialized wholesalers and modern logistics firms, greater vertical coordination and rapid emergence of a variety of contractual arrangements that are displacing spot markets, and a growing importance of private quality standards and of private enforcement of public standards. More and more, domestic and global markets converge in their dynamics, organizational forms and institutional settings (Reardon and Berdegúe 2006).

While production for the export market tends to be concentrated in capitalized farms and agribusinesses, a large percentage -probably the majority- of medium and small family farms and agri-processors tend to focus on the domestic market. This creates a potential for direct and indirect impacts of agricultural growth on the reduction of rural poverty and inequality. The case of Chile is particularly illustrative of this point; despite the fact that this is one of the most export-oriented countries (figure 4), there are 11 times more farmers engaged in the domestic market than those dedicated primarily to the export sector. Of those Chilean farmers who produce food for the domestic market, 89 percent are commercially-oriented small and medium family farmers. Two thirds of Chilean commercially-oriented small farmers produce for the domestic market (ODEPA 2002). These trends are likely to be augmented in countries with a large domestic agriculture market and high proportions of small scale farmers, such as for example Bolivia, Brazil, Colombia, Guatemala, Mexico or Peru.

Figure 4. Traditional commodities as percentage of LAC food exports



Source: CEPAL 2006 and FAO 2004.

Agricultural exports account for 11 percent of total LAC exports, but in about half the countries of the region this contribution is of 20 percent or greater (Piñeiro 2005). Despite the significant efforts made in promoting higher value and non-traditional exports, the traditional commodities

that have been important for a long time, such as coffee, cocoa, cereals, banana, vegetable oils, and meat, still account for over 80 percent of regional exports (figure 4).

There are six LAC countries with a significant participation⁸ in global exports of higher value food products: Argentina, Brazil, Chile, Costa Rica, Ecuador and Mexico. As explained by Henson (2006), exports of higher value products tend to be dominated by middle-income countries because of the very substantial private and public investments and the well developed institutional contexts that are required to be successful in these markets. In addition, global markets of each product tend to be dominated by a small number of early entrants. While this does not rule out the possibility that other LAC countries can gain a foothold in global markets of higher value agricultural products, it does mean that for most countries, there are clear limits to what can be expected.

Higher value export markets tend to be the domain of a relatively small number of capitalized farmers, urban entrepreneurs that invest in agriculture, and processing and trading firms. However, family farmers -in some instances including poor households- have been able to achieve a significant participation in some niche markets, notably organic coffee where 13 LAC countries provide almost half the global planted area (Henson 2006), and the Fair Trade markets for banana, coffee, fresh fruits and vegetables, honey, fruit juice, and sugar, where LAC accounts for two thirds or more of the certified producers in the world (Farnworth and Goodman, 2006; Lyon, 2006). While these examples are limited in scope, they do show that given the right incentives, effective producers' organizations, and availability of financial and technical support services, small family farms can rapidly innovate and participate successfully in very dynamic and competitive markets.

5. Challenges

There are four normative messages arising from this paper: (a) there is an urgent need to differentiate development strategies and policies according to the three categories of family farms; (b) policies ought to focus not only on developing the assets and capabilities of farmers, farm households, farms, and farmers' organizations, but of the territorial contexts in which they operate; (c) we ought to much greater attention to domestic food markets, with an emphasis on commodities, and; (d) we need to emphasize the development of public services and public goods that can work at the scale of 15 million family farms, in contrast with programs that have given greater priority to transferring private assets to, inevitably, only a small proportion of family farmers.

Despite many declarations, public strategies and policies continue to fail to internalize the heterogeneity of smallholder agriculture in LAC. In large part, this is due to the weakness of the public sector organizations charged with agricultural development, as differentiated strategies and policies are far more challenging to design, implement and manage than "one-size- fits-all" approaches.

Recent policy practice in LAC has resulted in a rural development toolkit with four major types of policy objectives and instruments: (a) guaranteeing minimum living standards; (b) reducing vulnerability; (c) improving the contexts in which decisions are made and assets utilized, and; (d) strengthening assets and developing capabilities.

⁸ Defined as equal to or greater than 1 percent of global exports.

We want to argue that guaranteeing minimum living standards and reducing vulnerability need to be leading strategies to support the more than 9 million subsistence smallholders, whose livelihoods are already dependent on non-farm sources of income. Under these circumstances agricultural development (that is, strengthening the on-farm components of the household's livelihood strategies) ought to emphasize an objective of reducing vulnerability. That is, agricultural development already is a safety-net more than the engine of these families' livelihood strategies. Policy ought to support that approach.

On the contrary, when it comes to the remaining 6 million family farmers, improving the contexts in which decisions are made and assets utilized, and strengthening their assets and capabilities, become paramount objectives. Here the plea is for strategies and policies to recognize this dual pillar: contexts and assets and capabilities. The scale is tilted heavily in favor of targeting the farmer and the farm, and not enough consideration is paid to the proximate context in which those farmers and farms work. The result of this imbalance are agricultural booms that miss too many smallholders.

The vast majority of smallholders, surely more than 90% of them, work for and depend on domestic markets, and, more precisely, domestic commodity markets. Yet, agricultural development agencies, international and domestic, are heavily under investing in improving access to and participation in those markets, and in the past ten years or so have turned their energy and their most creative attention to export markets and, within them, to higher value and niche markets. This is a terrible mistake, and one which is particularly costly to most of the 9 million subsistence farmers and to the majority of the 4 million family farmers in the intermediate group discussed in previous pages.

Policies that support the improvement of public services and the provision of public goods are a good part of the solution to these challenges. Unfortunately, they are not in vogue. In all but three or four countries, policy has been reduced to a collection of targeted projects, and a disproportionate share of the public effort is focused on delivering private goods and services to groups of farmers. While this may be satisfactory from the perspective of donors who want to measure impact as fast as possible and certainly within three years, it surely spells disaster for the majority of smallholders who don't happen to be included among the lucky few.

A return to public policy focused on the provision of public goods is, then, the keystone development strategies that can be effective in assisting and supporting family farmers in Latin America today. The task is demanding, as it requires serious re-thinking, retooling and investing in strengthening a public sector that is capable of meeting the challenges of the coming 30 or 50 years (Piñeiro, 2009).

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