Proposal for the Graduate Student Sessions, Developments in Economic Theory and Policy; Bilbao, 1st-2nd of July 2010

PATTERNS OF AGRICULTURAL DEVELOPMENT AND FAMILY FARMING IN SMALL ECONOMIES

A comparative study of Cuba and Costa Rica in the global era (1990-2008)

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1. INTRODUCTION.

Imagine a small developing country with a strong agricultural sector regarded as one of the most competitive in its region. Since 1990 this country has further promoted an outward-looking agrarian strategy with an important expansion of agrarian exports (particularly Non-traditional Agrarian Exports, NTAEs) that in 2008 represented 33% of total exports of goods. In this country, agriculture alone generated approximately a 10% share of GDP in 2008; if we consider forward and backward linkages of agriculture with agro-industry, the food industry and the fertilizer industry in the same year, primary activities represented a 32% share of GDP.[1] Also in 2008, agriculture in this country employed 13.1% of total employed population. This model has created higher income and employment opportunities in rural areas, particularly related to Rural non-farm employment (RNFE) and contract farming for some small farmers (approximately 20% of small and medium farmers); RNFE today ranks as the main activity in rural areas, which more than doubled agrarian activities. Compare this first country with a neighbouring island, which is a small economy with a long communist dictatorship and a central planning system for agriculture. On this island, agriculture as a share of GDP dropped from 9% in 1989 to 3.8% in 2008; that same year (2008), it employed 19% of the working population. After the collapse of the Soviet Union in the late 1980s, this second country faced the worst crisis of its history, which forced the implementation of a set of inward-looking agrarian policies based on internal

[1] Approximately 45% of agrarian production is employed as inputs in other industries or sectors. The agro-industrial sector, most of which is reported within the food industry, accounts for another 9.5% of GDP. If agricultural services were also considered, their contribution to GDP could possibly add another 8%. All together, the agricultural conglomerate accounts for about 32% (IICA, 2007a, 2007b).

liberalisation, food import substitution and sustainable small farming. While the first policy shift has achieved outstanding results in productivity growth (especially until 2000) and export expansion, opportunities for small farmers seem to have worsened. Indeed, during the global food crisis in 2007-2008, this country realised its high level of reliance on food imports, external technological packages and imported chemical and fertilizers, with the subsequent damaging environmental impact. In the meantime, this second country has achieved really uneven advances in production and productivity growth (particularly in the state sector). Yet, this economy has implemented sustainable small farming, which has had an important impact on the vulnerability and local food self-sufficiency of the 'campesino' sector and rural areas under really deprived conditions. Although at the starting point alternative agrarian practices were forced by the crisis and political isolation, this country has since become a 'temporary' laboratory of agrarian practices that form an alternative to mainstream recipes for agrarian development, of course with many associated problems but also interesting spaces for sustainable small farming. Currently, 92-94% of this country's agriculture is under low-input agriculture systems, and 64-70% of total food for national consumption is produced by small farmers with only 27% of total farming area following agroecological practices.

This striking contrast is at the heart of this dissertation, which compares diverse patterns of agrarian development and spaces created for small farmers in Costa Rica and Cuba since the 1990s, with particular attention to the policies implemented and changes experienced in both economies during the period 1990-2008. The research starts from the assumption that agrarian development and small farming opportunities are interlinked

processes in developing economies. One cannot entirely understand the latter without studying the former in less developed countries where more than 80% of rural inhabitants are small and poor farmers. More precisely, based on neostructuralist thinking and grassroots ideas of rural development (like food sovereignty), this dissertation assumes that small farmers have an important role in the process of agrarian development in developing economies.[2] When they get the right incentives, small farmers are more efficient than large producers and TNCs. They are also more labour intensive than large producers or workers in large export-led plantations. They yield 40-60% of production for national consumption, particularly basic grains, having an important role in national food security. They are also less dependent on external inputs and expensive technologies imported from Western countries. Therefore in the event of an external shock (call it the global food crisis or adverse climatic conditions) they can still produce enough to feed the national population.

In order to discuss these issues, the chapter is divided into seven sections beginning with a general introduction and justification of the cases. Section two describes the relevance of small farming in the current context of globalisation as a key dimension of the analysis and discusses theoretical arguments in favour of smallholder agriculture. Section three presents the main problems faced by small farmers in developing nations to reap the

[2] Food Sovereignty is the right of peoples, communities, and countries to define their own agricultural, labor, fishing, food and land policies which should be ecologically, socially, economically and culturally appropriate to their specific circumstances. Food Sovereignty places priority on sustainable food production for domestic and local markets, ensuring fair prices for farmers and access to land, water, forests, fishing areas and other productive resources through genuine redistribution (Vía Campesina, 2002).

benefits of agrarian trade liberalisation and domestic markets. Section four discusses the opportunities that the global trade regime currently offers for small farmers in Southern nations. The chapter finishes with a detailed description of why Costa Rica and Cuba are valid and interesting cases as well as a justification of the methodology and data sources applied in the rest of the dissertation. The final section concludes with some general ideas and presents the themes discussed in following chapters.

2. THEORETICAL ARGUMENTS IN FAVOUR OF SMALL FARMING.[3]

Many countries in the global South depend on agricultural production as the main source of food, income, employment, and foreign exchange earnings. The World Bank (2008) states that 2.5 billion out of the 3 billion of rural inhabitants worldwide are involved in agrarian activities; three out of every four poor people in poor countries live in rural areas, and most of them depend directly or indirectly on agriculture for their livelihoods. Of the developing world's 3 billion rural people, approximately two thirds live on small farms (with approximately less than 2 hectares) of which there are nearly 500 million. According to IFPRI, these small farms hold 50% of malnourished people worldwide, three-quarters of Africa's undernourished children, and most people living in absolute poverty (Hazell et al., 2007).

[3] Small-scale agriculture is in this dissertation used interchangeably with smallholder, family, and peasant farming. The World Bank's Rural Strategy (2003) defines small farms as having less than 2 hectares of cropland and a low asset-base. Acosta and Rodríguez (2006) suggest four criteria to distinguish family farms from subsistence farms and, in turn, from commercial farms (living on the farm, no permanent labour, sufficient/insufficient land to cover basic needs, sales or not to the market). Context matters when defining small farming: a 10-hectare farm in many parts of Latin America would be smaller than the national average, operated largely by family labour, and producing primarily for subsistence, making it a small farm by most criteria (Nagayets, 2005).

Today, over 50 developing nations depend on the export of three or fewer agricultural products for a substantial portion of their foreign exchange earnings (FAO, 2004c). Agricultural production is economically significant even in developing countries with highly diversified economies. In Mexico, for example, corn production alone employs 60% of the country's farming land, provides employment for approximately 3 million farmers (8% of the Mexican population and 40% of agricultural workers), and supplies the staple food of the Mexican diet (FAO, 2004b, 2004c; González, 2004; Rosset, 2006).

Despite persistent predictions that small farms will soon disappear, they have proved to be highly persistent (Kay, 2006; Rosset, 1999). According to Hazell et al. (2007), the area employed in small farms in the developing world seems to be growing rather than falling. In the meantime, whereas the average farm size decreased in many regions of the developing world during the second half of the twentieth century, the relevance of farming in household incomes has declined for many small farms. Nevertheless, the number of rural households dependent on farming as a platform for their livelihood strategies keeps growing. In this context, can small farms still be competitive and promote productivity growth, new sources of income and employment and food security in developing economies?

2.1. Productivity, employment and incomes.

Extensive and long standing empirical literature shows that when small farmers get the right incentives they are more efficient than large producers and plantations (Ellis and Biggs, 2001; Kay, 2006). Ellis & Biggs (2001) emphasise that smallholder farmers in many parts of the world reach productivity levels that are only about one third of the potential yield under optimum conditions. Most arguments in favour of small-scale agriculture are based upon the

'inverse relationship' between farm size and production per unit of land. This inverse relationship shows a common tendency for larger farms to yield lower gross and net returns per hectare of land per year than smaller farms (Berry and Cline, 1979; Lipton, 1993). Whereas large farmers tend to plant monocultures (since they are the simplest to cultivate with heavy machinery), small farmers in developing economies are more likely to cultivate crop mixtures and combine or rotate crops and livestock, with manure serving to replenish soil fertility (Rosset, 1999). Such integrated and diversified farming practices generate higher yields per unit area than do monocultures. Rosset (1999) further stresses that though the yield per unit area of one crop (for example maize) can be lower on a small farm than on a large monoculture, the total output per unit area (often composed of more than a dozen crops and various animal products) can be much higher and really diversified.

At the same time, Ellis and Biggs (2001) stress that small farmers generate more employment per production unit, make efficient decisions and use family labour intensively. Poulton et al. (2005) argue that when labour costs are an important part of agricultural costs (as in large scale plantations), smallholders may have significant advantages over larger units. Small farms are normally operated by poor people that utilise much labour, both from their own family and of their poor neighbours (Cornia, 1985; Heltberg, 1998).

Kay (2002) and Rosset (2005) further discuss that when there is little inequality in accessing assets and labour-intensive technologies are used, family farming contributes substantially to increase the incomes of the poor and landless in rural areas. This was precisely the case in Indonesia and other East Asian countries after World War II, where the development strategy simultaneously addressed and connected trade, growth and poverty reforms

to promote investment that linked small farmers, agriculture and industrial sectors (Kay, 2002). In these countries, every 1% of growth in agriculture corresponded to a 1.9% reduction in poverty: 1.1% urban and 2.9% rural poverty reduction (Kay, 2002; Stiglitz, 2005).

Finally, small farmers have more favourable expenditure patterns to foster growth in the local non-farm economy, including rural towns. They spend higher shares of their salaries on rural non-tradable goods than large farms (Hazell and Roell, 1983; Mellor, 1976). Therefore, they foster the generation of additional demand for many labour-intensive goods and services produced in rural poles. These linkages offer valuable income and employment opportunities for small farms and landless workers (Hazell et al., 2007; IFPRI, 2005).

2.2. Less dependency and environmental sustainability.

Small farms often employ more varied inputs per unit area than larger plantations. While small farms basically utilise non-purchased inputs like green manures and compost, large farms tend to use a great array of purchased agrochemicals and expensive technological packages (Funes et al., 2002; Rosset, 1999).

Moreover, Kay (2006) stresses that small farms innovate successfully because new technology is scale-neutral and less risky than traditional technology. When they have the opportunities and assets they participate successfully in marketing chains, either in their villages, or with the help of cooperatives.

Given that small farmers are less dependent on external inputs and expensive technologies, they cause less environmental damage than large farms and TNCs plantations (Rosset, 1999). Family farmers utilise a great array

of resources and have vested interests in their sustainability. Their farming techniques are diverse, incorporating and preserving significant functional biodiversity within the farm. By conserving biodiversity, open space and trees, and by reducing land degradation, family farms provide valuable ecosystem services to the larger society (see Altieri, 1995, 1999; Netting, 1993; Pretty, 1995, 2002; *The Ecologist,* 1998).

2.3. Food security and small farming. [4]

Hazell et al. (2007) point out that 85% of farms today remain smallholder operations, of less than two hectares in size, which are held by more than 2 billion people worldwide. In the majority of Southern countries, small farmers account for a considerable share of output (between 40 and 60%). In India, they grow more than 40% of staple food, own the majority of the livestock and account for most dairy production. In Sub-Saharan Africa, smallholders account for 90% of all agricultural production (IFPRI, 2005). In Latin America the great majority of farmers are smallholders who still farm marginal plots of land, usually employing traditional and subsistence techniques. Yet the contribution of the 16 million peasant units (in Latin America) to regional food security is substantial (Altieri, 1999). In Cuba, smallholders produce 64-70% of national food production with 27% of the farming land (Acosta, 2008).

[4] 'Food security is achieved when all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life' (World Food Summit, 1996: 5). FAO has further delimited four key dimensions of food security. Food availability means access to sufficient amounts of quality food. Food access implies individuals' access to sufficient resources for obtaining appropriate foods for a nutritious diet. Third, food utilization requires an adequate diet, clean water, sanitation and health care to reach a state of nutritional well-being where all physiological needs are met. Finally, stability to be food secure means that a population, household or individuals must have access to sufficient food at all times (FAO, 2004a).

According to Kay (2006), smallholders have a comparative advantage in staple food production and in some import-competing commodities. Given that family framers are less reliant on imported inputs, chemicals and machinery (and generally they produce food for self-subsistence), in the event of an external shock (call it the global food crisis or adverse climatic conditions) they can still produce food for national consumption. However, when staple foods are imported and local farmers try to compete with cheap and subsidised exports from industrialised countries, there is no chance for them, and they become highly dependent on the vagaries of the market to feed their populations (Rosset, 2006).

3. SMALL FARMERS IN THE CONTEXT OF GLOBALISATION: NEW CHALLENGES.

What really concerns some scholars today, for example, Ellis (2005), Kay (2006), Maxwell (2003), is that in a changing and globalised world, the prospects for smallholders are deteriorating. Conditions for small farms have changed considerably in the time since the Green Revolution of the mid-1960s to the 1980s. Contemporary challenges include access to markets and endowments, the excessive control of TNCs and increasing dependency on agrochemicals, expensive technologies (with the subsequent environmental degradation and climate change) and subsidised food imports from industrialised economies (IFPRI, 2005). The following sections discuss the contemporary challenges that pose particular difficulties for smallholders in Latin America.

3.1. Market Access.

Birdsall et al. (2008) argue that poor and family farmers in most developing countries currently find severe difficulties in marketing their products in their own local markets. The lack of infrastructure, storage, transport and marketing facilities generally limits their market access. These problems create high transportation and transaction costs for buyers and sellers and lead to inefficient and monopolistic markets, limiting income-generation opportunities for small and poor farmers (Pouliquen, 2000). In countries like Peru, transaction costs represent 50% of the value of sales. These costs were considerably higher for small producers (67%) than large producers (32%) (Escobal d'Angelo, 2000; Taylor et al. 2008).

Both theory and empirical evidence indicate that information costs also place poor farmers at a clear disadvantage to compete. The lack of consistent, efficient poor communications and infrastructures forces farmers and traders to travel, sometimes over long distances, in order to get market information (Taylor et al., 2008). IFAD (2003) empirical studies have shown that the majority of poor producers have limited knowledge of markets**,** their functioning, price fluctuation or the quality of goods. This makes small farmers passive rather than active players in the marketplace, becoming in many cases a source of cheap labour that fails to understand the full value of their production.

3.2. Access to assets and natural resources.

In countries where inequalities were high, trade liberalization accentuated existing income disparities as poor rural farmers lacked the assets required to take advantage of trade (IFAD, 2006; World Bank, 2008). IFAD (2001), Killick (2001) and Solignac Lecomte (2000) stress that access to endowments

determines the extent to which Latin American small farmers will respond to the market signals in a changing national and international trade system. Dorward et al. (2004a, 2004b) further stress that poor farmers are unable to expand significantly as producers of tradable agricultural commodities as markets expand, unless they gain access to key assets.

3.2.1. Natural Resources.

An extensive part of the literature has demonstrated that the lack of well defined titles and uncertain land tenure systems lessen productivity growth in a number of ways. First, secure property rights can extend households' incentives to invest by providing family farmers with improved credit access (with land acting as collateral). Second, it has long been recognised that in non-mechanized agriculture (family farming), a highly unequal land distribution will reduce productivity growth (Deininger, 2003). Finally, the lack of property rights also fuels land invasions, illegal occupations, peasant conflicts and social unrest (World Bank, 2008).

Kay (2006) argues that limited access to land by the majority of Latin America's *campesinos* is one of the main reasons for the persistence of rural poverty in the region**.** The World Bank (2008) and IFAD (2006) emphasise the slow advancement of insecure property rights and land titling in the majority of Latin America where less than 50% of small and medium farmers own legal land titles. In the early 1990s, empirical research gathered by Birdsall et al. (2008) showed that 63% of farmers in Chile, Colombia, Honduras, and Paraguay lacked legal land titles.

Theory and empirical evidence collected by Rosset (1999, 2005) describe historical patterns of land redistribution to landless and poor rural families with very positive outcomes in improving rural welfare while increasing the

competitiveness of small farmers. When quality land was really given to poor farmers and the power of the rural elites broken, significant rural poverty reduction and human welfare improvement has invariably been the result. Japan, South Korea, Taiwan, Cuba and China are all good examples of redistributive land reforms where small farmers have had an essential role (Lappé et al. 1998; Rosset, 2005; Sobhan, 1993).

Finally, the World Bank (2008) advocates that water infrastructures are very important to raise land productivity and stabilise yields, enhancing small farmers' competitiveness. In fact, productivity in irrigated lands is more than double that in rainfed lands within smallholder faming since they have limited access to irrigation systems.

3.2.2. Human and social capital assets

Education and health are also important endowments for small farmers, not only to raise agricultural returns and incomes but also to engage in RNFE and contract farming (IFAD, 2001, 2006; World Bank, 2008). Education can improve learning about new technologies, agrarian research and development (R&D) and recovering traditional peasant knowledge, affecting subsequent agricultural productivity (IFAD, 2001, 2010). IFAD (2001) has even indicated that education can speed up the adoption of new agricultural technologies and cash crops. Schooling can teach farming techniques, facilitate access to new information, assist access to professionals, improve the ability to understand new information and technologies, and speed up innovation.

Yet education raises rural incomes and opportunities only when connected to physical and public health endowments (IFAD, 2002; IFPRI, 2005). IFAD (2001, 2006) empirical work has shown that rural workers' incomes and

employment rely on their strength to face diseases and their physical capacity to produce. The World Bank Report 'Agriculture for Development' (2008) also affirms that widespread illness, HIV/AIDS and malaria are important shortcomings that can greatly reduce agricultural productivity and devastate rural livelihood strategies. Incorrect farming practices can also threaten the health of rural farmers and workers; irrigation can boost the incidence of malaria, and pesticide intoxication is estimated to produce 355,000 deaths annually (IFAD, 2010; IFPRI, 2005).

Finally, rural poor farmers also lack sufficient levels of organisation to enhance rural interests, capabilities to organise themselves and compete on equal terms (Echeverría, 2000). Narayan & Petesch (2002) argue that access to additional resources via social connections (social capital) fuels small farmers' competitiveness and opportunities. Given that poor people can rarely afford formal insurance, reciprocal social relationships provide financial, social, or political support during precarious times. Actually, most international institutions like the World Bank, governments and NGOs support the idea of social capital by promoting rural producers' organisations**,** rural women's groups and cooperatives that enable them to engage in RNFA and contract farming. These associations in cases like Costa Rica combined with other subsistence strategies are helping many rural farmers and women to raise incomes and improved access to resources (Villalobos-Briceño, 2009; Vízquez-Astorga, 2009; Calderón, 2009).

3.3. The excessive control of Transnational Corporations (TNCs).

Through the 1980s and 1990s, Structural Adjustment Programs (SAPs) in the majority of Latin American countries encouraged the withdrawal of state intervention in agriculture by cutting support and subsidies for food producers

(specifically basic grains producers), credit, commercialization and technical assistance (Conroy et al., 1996; IFPRI, 2005). These patterns opened opportunities for many agribusiness companies to monopolise processing, credit, marketing and technical capabilities, leaving smallholders extremely unequal commercial relations (Rosset, 2006; Ziegler, 2004).

More recently, the extreme emphasis on export promotion, patenting of crop genetic resources through biotechnology and genetically modified organisms (GMO) and the bias in agricultural research towards expensive technologies have deepened global and local asymmetrical market relations in Latin America's agriculture (Hellinger et al., 2001; Lappé et al., 1998). Large farmers and TNCs have achieved better access to capital and credit to finance cash crop production. They have been commonly provided with tax breaks, subsidised credit, and other incentives to shift to export production in developing nations. As cash crop production increased land values, landowners increased rents, revoked peasant tenancy and sharecropping rights. These affluent landowners have also expanded their holdings by purchasing the plots of smallholders who lacked the capital to produce for the export market and who found it increasingly difficult to live off traditional food crop production (Conroy et al., 1996; González, 2004).

In this context, national, regional, and global supply chains have been radically altered, bypassing traditional markets where smallholders sell to local markets and traders (World Bank, 2008; Rosset, 2006). TNCs such as Monsanto, Cargill, Nestlé and Wal-Mart have become so powerful that they dominate supply chains for food and agricultural goods from seed to supermarket shelf in developing economies (Rosset, 2006). Since the early 1990s these enterprises have achieved a certain monopolistic status that increasingly

enables them to set adverse costs and prices to farmers, placing especially the poorest farmers in an unsustainable cost-price squeeze (Heffernan, 1999; Ziegler, 2002, 2004). In 2004 the market share for the four largest agrochemical and seed companies reached 60% for agrochemicals and 33% for seeds, up from 47% and 23% in 1997, respectively (World Bank, 2008; TWN and IFAD, 2006). TWN and IFAD evidence (2006) shows that the top 30 food retailing corporations represent one-third of global grocery sales. Just one TNC controls 80% of Peru's milk production, five companies manage 90% of the world grain trade and six corporations run three-quarters of the global pesticides market. In Argentina and Brazil, supermarkets currently control from 60 to 70% of food sales (Heffernan, 1999; World Bank, 2008). TNCs currently obtain higher incomes than the GDP of the countries where they settled while employing less than 1% of the total labour force worldwide (RIMISP, 2007). Agricultural inputs, transportation, processing, and marketing services today account for 90% of every food dollar, while farming itself accounts for only 10% (Lewontin, 1998).

Finally, the dominant presence and control of TNCs have trapped developing countries in intensive production patterns highly dependent on foreign technologies and inputs. Whereas TNCs generally control R&D and new technologies to increase productivity, the majority of Latin American governments placed little importance on R&D and invested small amounts in these activities through the 1980s and 1990s. As a result, poor and small farmers from developing countries have found it extremely difficult to catch up with technologies and research coming from industrialised countries. This also hinders their possibilities to increase the value added of their exports and benefit from trade through contract farming (Arias, 2005; IFAD, 2006).

3.4. Environmental Degradation.

The shift from domestic food cultivation to export production has degraded the environment in the developing world by promoting the expansion of monocultures and the widespread use of agrochemicals (Rosset, 1999; SAPRIN, 2002). These practices have also eroded crop genetic diversity, generated growing levels of pesticide-related illness, and resulted in the contamination of ground and surface waters by pesticides and fertilizers (Conroy et al. 1996; Lundy, 1995; Thurp, 1998). Additionally, the intensive irrigation schemes favoured by SAPs often caused excessive extraction of groundwater, thereby diverting scarce water resources from local communities to large plantations and threatening to deplete local aquifers (SAPRIN, 2002). Furthermore, the declining ability to purchase agricultural inputs (due to the elimination of input subsidies and credit enhanced by SAPs) led small farmers in developing nations to keep to existing levels of production by expanding the land under cultivation. Therefore, they accelerate deforestation, overtaxing and degrading marginal lands (González, 2004; SAPRIN, 2002).

As a result, small farmers in developing economies have become extremely reliant upon resources that are exploitative, insufficient and sometimes unpredictable. A large number of the world's poorest farmers counteract challenges in environmentally fragile areas such as arid and tropical lands with limited soil fertility. Without access to other fertile lands in many cases controlled by large producers and TNCs, rising numbers of poor and small farmers have moved onto steep hillsides and low-lying coastal areas. Without additional public investments in erosion and flood control, these lands are often not suitable for farming and housing where rising

population puts pressure on natural resources (IFAD, 2002; Narayan & Petesch, 2002; World Bank, 2008). A downward spiral of impoverishment, resource degradation and vulnerability has been the result in many cases (Narayan & Petesch, 2002).

3.5. Food insecurity and subsidised food imports.

Ensuring food security in the global era is a complex process that is not only concerned with providing enough amounts through either imports or food aid. Although there is enough food to feed the population worldwide, an estimated 24,000 people die every day from lack of provisions, inadequate nutrition, and diseases resulting from low nutritional levels (Rau, 2001). Half of all food-insecure people are small farmers. Although they grow food, they lack the resources to meet all of their nutritional requirements through either production or purchase (IFPRI, 2005).

The combination of sustained high levels of protection in industrialised countries coupled with further liberalisation and the withdrawal of state support and investments in agriculture in developing economies have resulted in growing import flows to Southern countries. Food imports have been unnaturally cheapened by domestic or export subsidies in rich countries, having severe impacts on rural livelihoods and food security in developing economies.[5]

Specifically, family farmers living in low-income countries suffer losses from a threefold perspective (Rosset, 2006; TWN & IFAD, 2006). First, small farmers lose

[5] Only within the Organization for Economic Cooperation and Development (OECD) countries, farmers were estimated to obtain state support equivalent to 31% of their income, with rice, sugar, dairy products and meat having the highest degrees of protection throughout the period 2000-2001 (Guadagni & Kaufmann, 2004; OECD, 2003).

export opportunities and incomes from having their market access blocked in Western countries that apply subsidies. Second, they lose export opportunities in overseas markets, since the subsidising country is also exporting to these markets at artificially cheap prices. Third, they lose their market share in their own domestic market, or even lose their livelihoods, due to the increasing flow of artificially cheap subsidised imports in national markets (IFAD, 2006; TWN & IFAD, 2006).

When the influx of cheap, subsidized food from the United States, the EU and other developed countries (like Japan or Russia) depressed domestic food prices in less developed economies, wealthy farmers shifted from food production to the cultivation of more lucrative export crops (Madeley, 2002). In the meantime, poor farmers found their livelihoods threatened. Declining agricultural prices coupled with the withdrawal of agricultural subsidies, the reduction of extension services, and the elimination of subsidised credit have driven many farmers to abandon the land, resulting in a concentration of land ownership in the hands of wealthier producers and TNCs (González, 2004; Madeley, 2002; SAPRIN, 2002).[6]

In this same vein, Rosset (2006) goes even further by indicating that US and EU farm subsidies payments are biased toward the largest and wealthiest farmers and TNCs. When the price drops, instead of decreasing the area

[6] This is the case of Mexico where IFAD empirical work shows how subsidized maize imports forced approximately 700,000-800,000 rural livelihoods in Mexico to abandon agriculture. IFAD estimations showed that within the North American Free Trade Agreement (NAFTA) Mexico would take 15 years for domestic maize prices to equal international prices. It took only 30 months. Between 1993 and 2000, Mexican maize imports rose eighteen-fold while one quarter of the corn domestically consumed in Mexico is now imported from the US. This represented a 15% reduction in the economically active population employed in Mexican agriculture (IFAD, 2006; Rosset, 2006).

planted with a specific crop, larger farm operations maintain or even increase the harvested area. In the case of the US, 80% of farm subsidies (which amounted US$114 billion through the period 1995-2002) went to support the incomes of farmers and companies mostly engaged in crop farming. Whereas the wealthiest 1% of farmers received an average annual payment of $214,088, the 20th percentile averaged $9,916, and the rest (small farmers) got much less, or even none (Rosset, 2006). In the EU the allocation of subsidies is not much better than in the US. Over 78% of the 5.2 million beneficiaries of the Common Agricultural Policy (CAP) in 2006 received less than 5,000 Euros per year, driving an estimated 120,000 family farmers annually to lose their farms as a result of declining prices (Rosset, 2006).

In sum, the real tragedy is that prices no longer play a role in limiting overproduction, or in providing minimum prices to farmers. This enables the prices received by farmers for their crops and livestock to fall ever lower. Further, Rosset (2006) holds that the real beneficiaries of these practices are corporate livestock operations who acquire cheap feed, making environmentally destructive factory farming possible, and the big US and European agro-exporters who buy their raw materials so cheaply that they can out-compete any local producer in their domestic market. By contrast, small and medium farmers that engage in NTAES in developing nations seem to be condemned to export low value added goods.[7]

[7] For instance while the US and the EU apply zero tariffs on imports of cocoa beans, up to 30.6% of tariffs affect processed products such as cocoa paste and chocolate. Contradictorily, developing countries produce over 90% of all cocoa beans but account for less than 5% of world chocolate production (Guadagni & Kaufmann, 2004).

4. SPACES FOR SMALL FARMERS IN THE GLOBAL ERA.

4.1. Rural Non-farm Employment (RNFE).[8]

Trade openness and NTAEs in developing nations have generally created diversified sources of rural livelihood, either to reduce risk or to provide income in slack farming seasons and adverse times (IFAD, 2001). For many small and poor farmers RNFE has become an important way out of poverty in rural areas. Klein (1992) points out that in 1970, 17% of the rural population in Latin America had their principal occupation in non-farm activities. This increased to 24% in 1981 and has continued to rise ever since. Kay (2006) argues that secondary and tertiary activities, mainly derived from agriculture (and its forward and backward linkages), such as food processing, packaging, and marketing of raw materials, linked to NTAEs in the rural sector, have become the motor of economic growth in rural areas. They have generated great employment and income opportunities for poor producers and rural inhabitants, fostering pluri-activity in many rural households. Especially, a far higher proportion of rural women are engaged in RNFE than men (Dirven, 2004). While in most countries this share varied between 20% and 55% for employed men in 2001, in the case of women it ranked between 65% and 90% (Reardon et al. 2001).

More recently, Dirven (2004) indicated that RNFE is becoming one of the main labour sources in contemporary Latin America. Empirical research by

[8] RNFE is the employment of rural household members in the non-farm or non-agricultural sector, such as manufactures (rural industry and agro-industrial processing plants) and services (rural tourism and commerce) (Kay, 2006). In the majority of Latin American countries RNFE is closely related to the export boom of NTAXs (Dirven, 2004; Echeverría, 2000). Echeverría (2000) has also identified rural micro-enterprises development, job training to improve employment opportunities and incomes, and attracting public and private investment in infrastructure as important RNFA.

Ellis &Biggs (2001) showed how in practice farming activities on average tend to correspond to 40-60% of the livelihood activities. Other studies have even shown that for each dollar increase in agricultural value added, there is an increase of between US$1.50 and 2.00 in value added in the non-farm sector. Dirven (2004) further stresses that for a 1% increase in agricultural gross output, there is a 1% increase in RNFE. Even in economies such as Costa Rica and Mexico, RNFA employed more people than agrarian activities alone (36.3% in RNFA versus 7.7% in agriculture in Costa Rica and 42.3 versus 22.5 in Mexico).

4.2. Contract farming.[9]

The existing literature also identifies contract farming as a significant mechanism to integrate small farmers into agro-industry and NTAEs by participating in the benefits of international agrarian liberalisation (Glover, 1984; Key and Runsten, 1999; Sáez-Segura, 2006).

Recent research by IFAD (2006) has particularly identified different examples of smallholders' effectiveness to engage in higher-value commodity production in association with the private sector. The issue is to identify what makes small farmers attractive partners in these systems, and to ensure them support to develop their competitive advantages.

Governments and NGOs concerned with promoting the development of peasant farmers have created a series of strategies for enhancing their inclusion in the profitable agricultural export boom. At the starting point, almost exclusively large farmers reaped the benefits of booming NTAEs

[9] Contract farming is mainly an agreement between a small farmer and a firm, where the farmer produces a fresh or partially processed product and the firm has a commitment to buy it (Grosh, 1994). Sometimes the firm provides inputs and technologies, whereas some smallholders follow family farming principles.

business since they had the physical and human capital endowments necessary to respond reasonably rapidly to booming NTAEs (Kay, 2006). Today, a small proportion of peasants have shifted into contract farming in Latin America, most notably in Costa Rica, Chile, Guatemala and Paraguay. In Costa Rica several horticulture, baby vegetables and organic crops producers have been particularly able to engage in contract farming (Pomareda, 2007a, 2007b). Nevertheless, if a larger percentage of peasants were to go for NTAEs, Kay (2006) argues that it is far from certain that this would ensure their survival or would significantly improve their welfare.

4.3. Alternative and sustainable agriculture.

Finally, in the current context of globalisation there are also various alternatives based on sustainable small farming, food security and food import substitution (Garriacca, 2001; Kay, 2006; Teubal, 2001). In many cases these alternatives for small farmers have emerged from the grassroots arena of globalisation. In others, they are based on organic and agroecological principles developed by scholars and academics usually from developed countries (González, 2004).[10]

More radical proposals call for the redevelopment of the peasant economy by applying an 'autonomous development' scheme as the key for sustainable development in rural areas (Barkin, 2001; Teubal, 2001). For instance, the idea of 'food sovereignty' from the NGO Vía Campesina (2002) or the agroecological approach implemented by the Brazil's Landless Movement (MST) represent contemporary and working alternatives for small

[10] Agroecology is based on the use of alternative practices to develop agroecosystems characterized by low dependency on agrochemical and energy inputs (Altieri et al. 1998).

and poor farmers in less developed economies based in sustainable farming (MST, 2001).

However, most of these alternatives seem a little bit 'temporary' and forced by internal and external constraints. Specifically Cuba's agrarian development since the 1990s constitutes the unique case study worldwide where sustainable family farming has become official policy and is being implemented on a national scale. In practice, this alternative development has created spaces for small farmers. However, the lack of further land decentralisation and local market liberalisation and the unknown changes in Cuba's future trade relations raise many doubts regarding the long-term validity of this alternative experience.

5. THE INTEREST OF DIVERGING AGRARIAN POLICIES AND OPPORTUNITIES FOR FAMILY FARMERS IN SMALL COUNTRIES.

In addition to the striking comparison described in the introduction, there are two other reasons that make the comparison between Costa Rica and Cuba interesting: their small size and the fact that they can both be considered 'paradigmatic' and 'contradictory' (inward-looking vs. outward-looking) cases of agrarian development in the context of globalisation.

Despite the obvious differences in political systems and external relations, this dissertation argues that Cuba and Costa Rica are highly comparable in terms of their long-term historical trajectory and the importance of agriculture in their economies, the shocks they have experienced and the type of economy and their geographical conditions. Costa Rica and Cuba are small countries with strong social institutions, which have acknowledged highly

diversified achievements in agrarian and rural development during the last eighteen years compared to their neighbouring countries.

Historically, both economies have experienced similar agrarian patterns: external dependence and constraints during the 19th and 20th century, persistent export-led growth based on monoculture (sugar and to a lesser extent tobacco and citrus in Cuba; coffee or bananas in Costa Rica) and high reliance on external relations to develop their economies. Since the 1990s Cuba and Costa Rica appear to be greatly influenced by changing external relations when designing their agrarian initiatives. Yet external shocks forced both countries to shape their own agrarian policies by taking into further account their local conditions and opportunities.

Particularly, the period of analysis (1990-2008) included in the dissertation considers two critical dates that marked the Cuban and Costa Rican agrarian trajectories. In 1990 Cuba shifted to organics, family farming, internal liberalisation and land decentralisation as a necessary answer to face the crisis that followed the collapse of the Soviet Union in the late 1980s and the tightening of the U.S. embargo. Costa Rica, in contrast, signed the General Agreement of Tariffs and Trade (GATT/World Trade Organisation, WTO) in 1990 which liberalised agriculture to a greater degree, further promoting NTAEs and strongly attracting FDI and TNCs in agriculture and its related activities. It was an attempt to diversify Costa Rican agriculture while reducing the vulnerability of traditional crops to international shocks. In 2008, on the other hand, Latin America faced the global food crisis. The crisis dramatically affected developing countries' dependency on food and agro-inputs, increasing vulnerabilities in Costa Rica and showing to some extent the usefulness of Cuba's unique experiment. Although at the starting point

Cuba's alternative was a product of economic and political isolation, today it is less dependent on external inputs, expensive imported technologies, thanks to the autochthonous development of alternative technologies.

In short, this dissertation argues that each of them represents a 'paradigmatic' case of different approaches to agricultural development and family farming opportunities in recent times. Costa Rica is generally accepted as a successful result of neoliberal agrarian policies implementation where some spaces have been created for small farmers through RNFE and contract farming. Cuba, on the other hand, is the only country worldwide that was forced to reject neoliberal agrarian policies and has embarked on a nation-wide and perhaps 'temporary' experiment in sustainable family farming.

6. RESEARCH STRATEGY AND METHODOLOGY: COMPARATIVE CASE STUDIES.

6.1. Methodology.[11]

Whereas qualitative methods emphasise commonalities and primarily focus on similarities across cases, clarifying categories and concepts, comparative research examines patterns of similarities and differences across cases and tries to come to terms with their diversity. Comparative studies see each case as a combination of characteristics and investigate similarities and differences in combinations of characteristics and patterns across cases (Bryman, 2004; Crotty, 2004; Ragin, 1994)

[11] A case study is an empirical inquiry that explores contemporary or historical phenomena within its real-life situation, especially when the limits between phenomenon and actual context are not really clear (Schramm, 1971). Case studies are more appropriate when 'how' or 'why' questions are being posed, when the researcher has little control over events, and when the focus is on contemporary and historical phenomena (Yin, 2003). Denizn and Lincoln (1994) further argue that a case study should not just be defined as qualitative research. Indeed, case studies can be built from a mixture of qualitative and quantitative evidence.

Quantitative research, on the other hand, tends to examine disparities among a much larger number of cases with a different emphasis. It often assumes uniformity or generality when there is a great deal of diversity. By contrast, comparative research has the ability to get a good sense of the larger category that embraces the cases included in the study (Crotty, 2004; Ragin, 1994). This is therefore the strength of comparative research, which leads to gaining a much higher level of knowledge and in-depth understanding of a specific reality than that provided by quantitative methods. Moreover, comparative research based on two cases presents higher robustness when compared to single case studies. Analytic conclusions independently arising from two cases will be more powerful than those coming from a single case (Yin, 2003).

In particular, this dissertation is a comparative research study based on two case studies, Cuba and Costa Rica, which endeavors to develop interpretative, inductive and in-depth knowledge of a specific contemporary reality: **how do different agrarian strategies and their process of implementation (between 1990 and 2008) create various spaces for family farmers in the current era of globalisation, particularly in small economies?** The study, therefore, contrasts diversity by interpreting historical significance, advancing theory and studying different causal conditions (different agrarian policies, political systems and trade relations) connected to different outcomes (spaces for small farmers) in Cuba and Costa Rica.

6.2. Data Sources.

Most of the research methods literature agrees that the data collection process for case studies is more complex than those used in other research strategies. In case studies, the data gathering method for obtaining evidence

and information may come from six sources: documents, archival records, interviews, direct observation, participant observation and physical artefacts (Yin, 2003). Primarily, this Cuba-Costa Rica comparative inquiry is underpinned by the following data sources:

1. **Semi-structured interviews** and informal meetings with a selected number of government officials, academics, researchers, leaders of peasant organisations and small farmers in several regions to explore the differences between Costa Rican and Cuban agrarian policies and the spaces created in each of the two countries for smallholders.

2. **Macroeconomic data and other agriculture indicators** are used to show the changes in agriculture in each of the two countries. The National Statistics Bureau (ONE), National Institute for Economic Research (INIE) and The Centre for the Study of the Cuban Economy (CEEC) in Cuba; and The Ministry of Agriculture and Livestock (MAG), The International Centre for Political Economy (CINPE) and the Land and Sea Faculty, National University, among others in Costa Rica; were the main institutions visited and sources of information consulted during my fieldwork in both countries.

3. **Research papers, newspaper articles, field notes, unstructured interviews, life histories and practical observation**, all constitute useful and up-to-date sources of data on the structure and evolution of agrarian policies in both Cuba and Costa Rica and how these policies opened opportunities and created tensions for small farmers.

7. CONCLUSION AND FOLLOWING CHAPTERS.

Recent agrarian development in Costa Rica and Cuba constitutes a contrasting and paradigmatic reality under the existing process of globalisation. It is surprising that two small countries that have experienced similar agrarian patterns during decades, which were extremely reliant on external relations, inputs and technologies, have experienced such a radically different evolution in terms of agrarian development since 1990.

While it might be unquestionable that countries like Costa Rica have advanced more than Cuba in terms of income and employment opportunities derived from increasing productivity growth and export promotion, the question is, has the Costa Rican model generated spaces for small and poor farmers? If so, what have those opportunities been and what is the long-term viability of small farming in this country?

By contrast, in Cuba sustainable family farming has evolved by reducing dependency on imported inputs and expensive technologies throughout the island. The lack of further internal liberalisation and decentralisation, however, has hindered further increases in production and productivity growth to reduce food imports. Given this, to what extent is the Cuban experiment is a 'temporary' solution? Can it be valid in the long run?

This dissertation investigates this outstanding situation by comparing the patterns of agrarian development (inward-looking vs. outward-looking) and small farmers' opportunities in Cuba and Costa Rica. The central part of the dissertation, however, concentrates on the impact of different agrarian strategies in the global era from two different angles. First, the dissertation focuses on the changes and shifts in domestic agrarian policies implemented in Cuba and Costa Rica from 1990 to 2008. Second, it explores the

opportunities and problems derived from the two cases to enhance small farming.

The rest of the dissertation is organised in six chapters. ***Chapter 2*** presents a snapshot of Cuba's agrarian policies implemented from 1990 to 2008. This chapter discusses the changing production patterns and technologies experienced in Cuba's agriculture and how they have opened spaces for small farming throughout the island.

Chapter 3 introduces an in-depth analysis of the opportunities and drawbacks found in the Cuban agrarian strategy to enhance family farming. This chapter will accordingly explain income and employment opportunities generated for small farmers and their contribution to national food security. Among the problems, the chapter discusses the lack of further decentralisation and liberalisation and how these drawbacks hinder increasing production and productivity growth throughout the island.

From an opposite angle, ***chapter 4*** looks at the type of agrarian policies implemented in Costa Rica from 1990 to 2008 based on NTAEs and transnationalisation. The transformations in the agrarian sector and rural areas, such as diversification and geographical specialisation, strong development of agro-industry, agrarian-related services in rural areas, export diversification and import dependency, will also be introduced.

Chapter 5 discusses the spaces created by Costa Rica's agrarian policies for small farmers with special emphasis on RNFE and contract farming. The chapter will further investigate whether there may exist trade-offs between productivity growth and opportunities for small farmers in Costa Rica.

Chapter 6 presents various small farming alternatives in Cuba and Costa Rica as representative patterns to observe vigilantly when implementing

agrarian policies in small developing economies. These experiences can be plausible alternatives based on small farming able to solve the likely trade-offs existing between productivity growth and family farming.

The dissertation finishes with (***chapter 7***) some conclusions and a brief discussion of the policy implications of the analysis, arguing the need for renewed attention to different opportunities and challenges created by various agrarian models and the future of small farming in the global era.