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PUBLIC POLICIES AND FOOD SYSTEMS IN LATIN AMERICA

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Chapter 4

Social history and institutional change in Nicaragua's agricultural and food policies[1]

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Introduction

Food security has been a driving force in public policy for over thirty years, particularly since the World Food Summit in 1996, which was one of the most important events of the millennium and brought together more than 120 heads of state and government. However, food policies face major challenges: food-related issues are highly complex, as they involve the coexistence of social, economic and political dimensions that must be coordinated within a context of uncertainty and multifaceted constraints.

This chapter examines changes in Nicaraguan food policy over the past century. It is based on an approach that combines the socio-history of public action with historical institutionalism. Firstly, however, it is important to establish the context of the study. Since Nicaraguan agriculture plays a central role in the economy and in food availability, agricultural policy and food policy are closely interconnected. While agricultural policies have long promoted agro-exports at the expense of food production, in a context of large-scale food importation, food policy has for many years been limited to regulating the health aspects of production, marketing and consumption. Although the focus on food self-sufficiency began in the 1980s, it was only in the mid-2000s that food sovereignty was placed on the political agenda, bringing about a gradual institutional change and a new bifurcation of the trajectory of agricultural and food policies.

This context raises some pertinent questions. How do food policies interconnect with agricultural and rural development policies in order to tackle the food challenges of the Nicaraguan population? Why have political and social actors in Nicaragua converged towards the development of policy instruments aimed at food self-sufficiency and sovereignty? How have they been able to place this paradigm at the heart of the agenda that actually assimilates agricultural and food policy?

1. This chapter is a translated and revised version of an article accepted for publication in the *Economie Rurale* journal, no. 377, 2021.

This chapter mobilizes several sources of information: Nicaraguan agricultural[2] and food policy documents (strategies and action plans, laws, regulations, programs, etc.); academic literature on the evolution of agricultural, rural and food policies in Nicaragua; and the results of field work carried out in the northern department of Chinandega.

After outlining the context in relation to the agricultural sector and the food security situation in Nicaragua, the section that follows introduces the approaches mobilized, and the materials and method used in the analyses. These are presented chronologically in four stages, focusing on the trajectory of agricultural and food policy instruments. The chapter then draws to a close with a conclusion and some reflections on the way forward.

⏩ Contextualization

Although Nicaragua's population has been predominantly urban since the mid-1980s, rural communities still represented 40% of the total population in 2020. The majority of this sector of the population are employed in agriculture (80% of the rural population), an important sector of the economy that, according to the World Bank (2015), contributes 15% of the GDP,[3] ahead of mining (14%) and trade (11%).

The central role played by agriculture in food availability

National agricultural production is even more central in Nicaragua, providing 80% of the basic foods consumed by the population: maize, beans, sorghum, rice, meat and dairy products. Agricultural production takes place in a wide variety of biophysical conditions that allow various types of farms to produce a wide range of crops and livestock (Maldidier and Marchetti, 1996). On the one hand, the large estates, legacy of the Conquest, produce mainly export crops (sugar cane, bananas, peanuts, sesame, coffee, cacao) and cattle on the fertile plains of the Pacific and in the mountains of the Central North, or practice timber extraction and mining in enclaves on the Atlantic Coast. And on the other, in the areas left by these large landowners, smallholdings and family farms produce food, sometimes combined with diversified animal husbandry, coffee or cocoa (Merlet,1990).

Nicaragua is a net exporter of agricultural products for which food imports represent only 10% of total imports (Bornemann et al., 2012). The fact that food is imported, although in small volumes, is an indicator of the vulnerability of the Nicaraguan agrifood system. At present, food cultivation for the local market involves many families in a limited amount of space, as livestock farming and plantations for export occupy the lion's share of the available land. However, domestic production does not cover the country's needs and, as such, it imports cereals (rice, wheat), oil and other food products (raw and processed), while also benefiting from food aid.

2. This literature review, started in 2012, has resulted in the publication of a chapter on policies targeting family farming (Pérez and Fréguin-Gresh, 2015) and another on public policies in support of agroecology (Fréguin-Gresh et al., 2016).
3. GDP 2018 = US$13.1 million (current dollars).

According to FAOStat, the trend points towards a growing food deficit. Providing the basis for a poorly diversified diet, Nicaraguan agriculture is characterized by low productivity and is subject to climatic challenges and natural disasters. These factors affect the variability of the quantities of food produced and the market prices (Solornazo, 2016; Bornemann et al., 2012) which, moreover, have increased in the last 15 years (ECLAC, 2017). Finally, gender and generational inequalities, the degradation of natural resources, isolation and limited accessibility to services also have a negative impact on agricultural production.

Food insecurity continues to prevail, despite some improvement

In this context, 17% of the Nicaraguan population suffers from hunger (ECLAC, 2017). As in other countries, food insecurity mainly affects poor populations, and as 94% of the rural population is in a situation of multidimensional poverty (INIDE, 2016; FAO, 2018), the Nicaraguan rural communities are those most affected by food insecurity. While the Global Hunger Index (GHI) has improved over the last 30 years, Nicaragua remains one of the Central American countries most affected by hunger (FAO and PAHO, 2017). Despite a sharp decline in the number of undernourished people over the last 20 years, the food insecurity trend has remained level (see figure 4.1). In addition, while maintaining low levels of acute malnutrition (>4%) and global malnutrition (6%), and reducing chronic malnutrition (Solornazo 2016), there is a high percentage of overweight and obese adults, estimated at 10% of the population (FAO and PAHO, 2017). Nicaragua thus faces the double burden of malnutrition (FAO, 2019; FAO and PAHO, 2017).

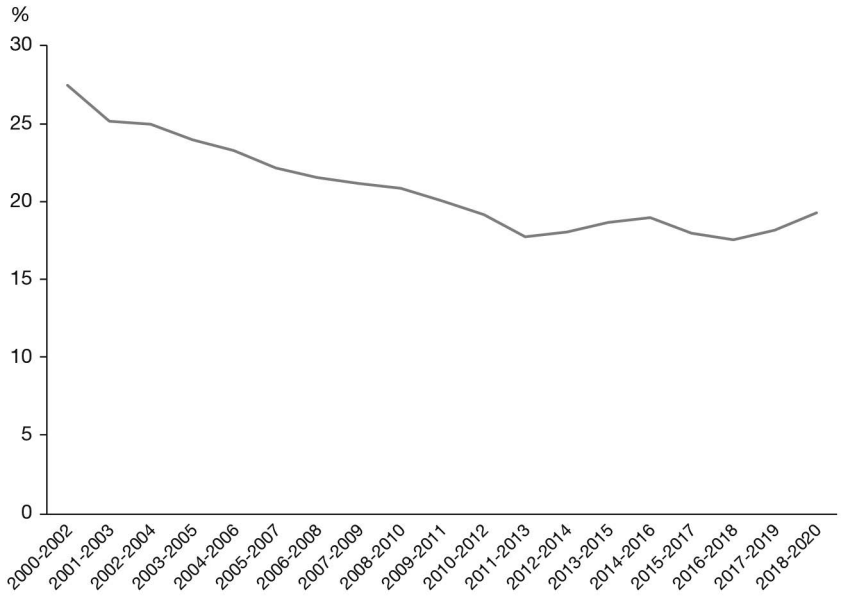

Figure 4.1. Evolution of the number of undernourished people (3-year average) (source: FAOStat).

▸▸ A sociohistorical approach to public action and institutional change based on the analysis of the trajectories of policy instruments

Theoretical approaches

This section analyzes the evolution of public policies in the field of agriculture and food in Nicaragua, mobilizing various approaches.

On the one hand, this chapter is aligned with other research conducted in the sociohistorical field of public action (Payre & Pollet, 2005; Dubois, 2003; Cossart & Hayat, 2015). These investigations do not form a homogeneous corpus nor do they claim to provide a specific theoretical framework. However, they offer keys to the analysis of the complexity of public action based on the past in order to evaluate the lessons learned (Baudot, 2014). The sociohistory of public action makes it possible to question the power relations at play in the elaboration of public policies and forms of social governance, highlighting continuities and ruptures beyond the classic temporalities linked to the alternation of governments and regime changes, including the most radical, such as revolutions (Lascoumes & Le Galès, 2007). In the sociohistorical approach, time is not mobilized as a variable external to social processes, but rather as a component of the context within which actors must act and that positions them as part of social processes situated in space and time. This chapter uses the practice of social history, which is defined by a focus on temporalities and, empirically, on the social production of categories of knowledge and action. Thus, we consider, in particular, the administrative categories (Baudot, 2014) mobilized in policy documents (e.g., the poor in a policy to fight poverty, small-/medium-/large-scale producers in an agricultural policy, etc.), especially those instruments that are "effective markers of change" (Lascoumes, 2007; Lascoumes & Le Galès, 2007). Charting the instruments and their evolution over time, the practice of social history, in our opinion, facilitates the analysis of institutional changes in agricultural and food policies in Nicaragua. In social history, the term instrument refers to the, "technical device with a generic vocation that entails a concrete conception of the political/society relationship and is based on a conception of regulation," (Lascoumes, 2007, pp. 776–777) that embodies the relationships between social actors. The hypothesis is then based on the idea that, "instruments embody one or more convergent political rationality and that they are supported, in the implementation of a program, by a social group that finds its potentialities in line with its interests. The instrument produces, in fact, a specific representation of the issue it addresses" (Ibid., p. 77). Unlike the sociology of public action, social history analyzes instruments as a transmission belt of policy intentions and content up to their implementation (Baudot, 2014).

On the other hand, the chapter mobilizes historical institutionalism approaches, drawing on research by Hall et al. (Hall, 1993, 1997; Hall & Taylor, 1997), which show that the choice of instruments is indicative of institutional change, accumulations of institutions and ruptures, which may reflect a path of dependence or critical junctures that reshape the national trajectory (Mahoney, 2001; Collier & Collier, 2003; Capoccia, 2015; Capoccia & Kelemen, 2007). These works further show that the analysis of policy instruments allows us to qualify levels of change ranging from policy mix adjustment, as defined by Flanagan et al. (2011), reflecting a first order of change to the introduction of new instruments designed as part of a paradigm shift (a deeper level of change).

Material and Method

In addition to a literature review on the evolution of agricultural, rural and food policies in Nicaragua, the research is based on an analysis of "gray literature" (documents on strategies and action plans, laws, regulations, programs, etc.). It is complemented by empirical data collected from fieldwork conducted in 2016 in the department of Chinandega, which is located in the Mesoamerican dry corridor, where poverty and food insecurity persist. Qualitative surveys were conducted in eight villages illustrating the disparities of this rural region (in terms of biophysical conditions, access, agricultural production). Data collection was based on six focus groups, 11 semi-directive interviews with local leaders and seven interviews with administrative actors involved in the implementation of flagship programs of the current agricultural and food policy (the Food Production Program (PPA), known as "Zero Hunger" and the Comprehensive School Nutrition Program (PINE), known as "School Meals"). The focus groups, which brought together between six and 15 women and men representing different age groups, addressed a range of topics: changes in the production system, the institutional environment related to agricultural production and food, the population's diet, its evolution and the strategies deployed to overcome crises, and gender and intergenerational relations. Interviews with local leaders and administrative actors focused on the interpretation of the content of public programs, their operation and effects. These stakeholders were selected on the basis of their role in the organizations involved in the implementation of the programs (table 4.1). A number of stakeholders allowed us to consult their work files.

Table 4.1. Selection of surveyed administrative stakeholders

Affiliation of administrative stakeholders surveyed	Level of participation in the implementation of agricultural and food policies
Family cabinets (at municipal and local level)	Pre-selection of PINE and PPA beneficiaries
Nicaraguan Agricultural Technology Institute (INTA)	Agricultural technical assistance provided under the PPA
Ministry of Family, Community, Cooperative and Associative Economy (MEFCCA) at municipal and departmental level	Application of the PPA
Ministry of Education (MINED)	Application of PINE
World Food Programme (WFP)	
Public schools (local)	Distribution of food to schoolchildren

⏩ Socio-historical analysis of agricultural and food policy instruments in Nicaragua: evidence of institutional change

A combination of instruments that promote large landholdings and agro-exports and regulate trade and food production in a context of high market dependence

Until the end of the 1970s, agriculture was the main sector of the Nicaraguan economy and had to meet the objectives of economic growth and macroeconomic

equilibrium: it played the role of supplier of items for export (Grigsby Vado & Pérez, 2007). This situation is the result of power relations, established during colonization, skewed in favor of the ruling classes composed of an agrarian bourgeoisie of landowners and a commercial oligarchy (Merlet, 1990).

In the 19th century, the ruling classes formed a political and economic elite (Paige, 1985), as in other Latin American countries (Hurtado, 2000), and promoted the opening of the economy and a model based on integration into the world market, the development of export crop plantations (indigo, cotton, sugar, bananas) and cattle ranches, on farms supported by different public policy instruments. These estates were also potentially involved in timber and mineral extraction on the Atlantic Coast, financed by foreign investment. In this context, a series of laws allowed the privatization of land and its concentration in the hands of the elite, such as the agrarian laws of 1858, 1862 and 1877, which promoted the development of haciendas and large estates. They also promoted the individual appropriation of land (IDERU, 2001), while the labor laws (1841) guaranteed the availability of labor for large landowners (Merlet, 1990). Thus, large landholdings benefited from support provided by public policies that facilitated land concentration and capital accumulation (Gould, 2008).

This policy orientation was accentuated with the coming to power of the Somoza family that controlled Nicaragua under a military dictatorship for several decades (IRAM & AEDES, 2000). The Somozas benefitted from the support of the United States and foreign investment focused on the development of large plantations for agro-export and the extraction of natural resources, enabling Nicaragua to, at that time, profit from the most dynamic and prosperous economy in Central America (Wiggins, 2007). This dynamic was made possible as a result of the coercion and repression of workers and peasant farmers that represented both a threat and an opportunity, as it sparked the emergence of cohesive social movements against the dictatorship, mixing social struggle and guerrilla activity (Sánchez González et al., 2016).

The most illustrative example of the dynamics of intense modernization of export agriculture (Hurtado, 2000) was the expansion of large cotton plantations benefiting from significant public support: access to land, technical advice, credit conditional on the adoption of technical packages (Fréguin-Gresh, 2017). The creation of a Ministry of Agriculture and Livestock in 1952 to promote and diversify export products was accompanied by funding and technical assistance from the United States: the creation of a National Agricultural Technical Service (STAN), closely linked to the United States Department of Agriculture (USDA), stimulated the expansion of cotton, coffee and livestock breeding and, to a lesser extent, sugarcane and tobacco. Specialist institutes, such as the Nicaraguan Coffee Institute (INCAFE), were set up that, among other things, were in charge of relations with exporting companies, often close to the government and/or linked to US interests, in order to enforce international price-fixing agreements (Craipeau, 1992). Other public incentives indirectly promoted agro-exports with various development programs aimed at establishing economic and communication infrastructures (railroads, ports, roads, telegraphs, etc.), facilitating the financing of production (system of usurious loans to establish plantations for export) and promoting large-scale ownership and circulation of their products for export, as well as facilitating the expansion of the sector and the advance of the agricultural frontier. The corollary was the forced displacement

and poverty of the peasantry (Maldidier & Marchetti, 1996). Food production was marginalized and imports of commodities (textiles, food) increased in the context of the free market (Wiggins, 2007).

Thus, the only policy instruments related to food at that time referred to trade (regulation of the sale of milk of 1936) and food safety (regulation of milk pasteurization of 1949) or sanitary regulations of production (Animal Health Law of 1954 and Plant Health Law of 1958, Law of Production, Marketing and Use of Improved Seed Varieties for Planting of 1967) (Perez Martinez, 2019). Despite a lack of reliable figures showing a rise in poverty and hunger, the INCAP (Institute of Nutrition of Central America and Panama), created in 1946 as a specialist center for the study of food and nutrition within the framework of the Central American Integration System (SICA), flagged up concerns about the situation of malnutrition, particularly in Nicaragua. Faced with this situation, the government's response was limited to creating a Nicaraguan Agrarian Institute (IAN), which has been organizing agricultural colonization and road construction since 1963, the year in which an agrarian reform law was passed in name only, since far from giving rural communities access to land, it only ensured the availability of labor for low-cost work in the plantations (IRAM & AEDES, 2000).

The 1972 earthquake destroyed the capital and caused the collapse of the economy and public institutions. This marked a critical juncture (Stuart Olson and Gawronski, 2003), opening a window of opportunity in the fight against poverty, while popular discontent peaked, mobilized around Sandino's project seen as an alternative to the economic and social model controlled by the ruling classes (Sánchez González et al., 2016). While socioeconomic structures deteriorated and aid was diverted (Rueda Estrada, 2013), the agro-export model was in crisis (Maldidier & Marchetti, 1996). The majority of the population was suffering from hunger (Barroso Peña, 2011). It is in this context that a popular uprising led by the Sandinista National Liberation Front (FSLN) triumphed and led to a regime change (Figueroa Ibarra, 2005; Austin, Fox and Kruger, 1985).

The reform of instruments in support of food self-sufficiency: new options under pressure?

The Sandinista Popular Revolution marked a turning point in public policy and prompted profound social and economic transformations (Núñez Soto, 1984, 1987) and institutional changes (Mahoney, 2001). The focus of the new political agenda was on defense, literacy, health, the transformation of the food system, particularly the land issue and the social conditions of production (IRAM & AEDES, 2000). While agro-exports remained crucial for generating foreign exchange, the policy instruments guiding public interventions in the food system were directed at the peasantry: agrarian reform (agrarian reform laws of 1981 and 1988), credit programs, technical assistance, price guarantees, marketing services (Zalkin, 1987). Agricultural policy prioritized food self-sufficiency (Austin, Fox & Kruger, 1985) through the reactivation of food production and the strengthening of rural employment, which responded, in part, to the demands of the population. Indeed, social movements, particularly workers' movements, which represent the collective expression of the

interests of traditionally marginalized groups in Nicaraguan society, were gaining significant ground (Terán & Quezada, 2005) and weighing in on the political agenda. However, the country was also experiencing hostile action from both internal and external forces opposed to the Revolution that influenced the direction of policy: food self-sufficiency is called for in a context of blockades.

The Ministry of Agricultural Development and Agrarian Reform was created to manage the production of state farms and cooperatives (Grigsby Vado & Pérez, 2007), prioritizing associative forms of activity that were almost nonexistent prior to 1979, and that benefit from significant public support: credit, technical assistance and agricultural services. The Government established a food marketing and distribution network with the Basic Food Company (ENABAS), which purchased food production at controlled prices and subsidized consumption (Rueda Estrada, 2013). These instruments formed part of a National Food Plan focused on local production and consumption of "indigenous" products such as corn and its derivatives, which had previously been devalued in favor of imported foods, while the Ministry of Culture organized fairs to promote peasant production (Berth, 2014). In 1985, an incentive program for self-sufficiency was introduced to promote food production, including in the city (for example, 800 hectares were cultivated in the outskirts of Managua).

While changes in agriculture were mitigated (Grigsby Vado & Perez, 2007), particularly due to the agrarian counter-reform carried out (Roux, 2010), the objectives of reducing inequality, poverty and malnutrition were achieved (Redclift, 1986). However, after the mid-1980s, conflicts hindered production (Ortega, 1986). Economic imbalances, the gap between prices and wages, the use of subsidies, complex solutions (work for food) and the concentration of defense expenditures were difficult to manage. The end of the 1980s was characterized by a low-intensity conflict, which, combined with years of drought, minimized the effects of public interventions.

Elaboration of a draft SSAN policy in a post-crisis context marked by the affirmation of the role of external actors in the fight against poverty

Following the 1990 elections, there was another change of direction, with the return to power of the liberal governments in a context of national peacemaking and reconciliation, in which a strategy that once again favored free markets and agricultural exports was rethought. The lifting of the US blockade against Nicaragua enabled the country to re-enter the world market. Macroeconomic stabilization policies initiated in the late 1980s continued and programs were initiated to liberalize trade, privatize national enterprises, rebuild a network of traders and distribution chains for private goods and services, and reduce the budget deficit and inflation. The economy and infrastructure were in ruins and society remained polarized along both partisan and socioeconomic lines. Although growth had picked up since the mid-1990s, poverty and hunger continue to plague the population, particularly in rural areas.

In the mid-1990s, agricultural production recovered, with the return of producers to their farms following displacement as a result of fighting and new farm installations on the agricultural frontier, which generated large-scale deforestation (Maldidier & Marchetti, 1996). However, the recovery of losses suffered due to the conflicts did not succeed in reducing tensions that were further aggravated by austerity and

agrarian counter-reform affecting the peasantry (Roux, 2010). With the reduction of the role of the State in the agricultural sector (cancellation of input subsidies, reduction of rural credit and technical assistance), the Ministry of Agriculture and Livestock, which had replaced the Ministry of Agricultural Development and Agrarian Reform, reoriented its strategy towards the regulation of production and trade, while transferring sector support to the newly created agencies: the Nicaraguan Agricultural Technology Institute (INTA) for agricultural expansion, the Rural Development Institute (IDR) and the National Forestry Institute (INAFOR).

The majority of the population were in a fragile state caused by the years of conflict and restrictions of the mid-1980s, and by the austerity of the 1990s. In the late 1990s, 44% of the population were surviving on less than $1 a day and 75% on less than $2, making Nicaragua the poorest country in the Americas after Haiti (OXFAM, 1998). Poverty was a stark reality when Hurricane Mitch, one of the country's worst natural disasters, hit the region in 1998. According to ECLAC, it affected almost 20% of the population (causing 6,000 deaths), mostly among the poorest communities living in precarious housing (ECLAC, 1999). According to Bradshaw and Linneker (2003), these disasters tend to, "reveal existing power structures and relations (…) provoking profound changes (…) and opportunities for transformation" (p. 148). However, Mitch also offered hope for reconstruction and an opportunity for civil society, government and international agencies to work together with the common goal of improving the lives of the population (Bradshaw & Linneker, 2003).

As the international community made pledges to reduce poverty (Copenhagen Declaration of 1995, G7 Summit of 1999), the Government of Nicaragua submitted an intermediary Poverty Reduction Strategy Paper (PRSP) in 2000 (McIlwaine, 2002) to apply for the Heavily Indebted Poor Countries (HICP) initiative operated by the World Bank and the International Monetary Fund. These international actors, as well as external cooperation in the broad sense, asserted themselves as central actors of development, investing funds in the revival of the agricultural sector and establishing themselves as guarantors of public programs under conditionality (Le Coq et al., 2013). The role of international actors represents a singular element in the orientation of public policies in Nicaragua and, more generally, in the elaboration of public policies in developing countries (Darbon, 2004). A Poverty Reduction Strategy (PRS, 2000), an Enhanced Economic Growth and Poverty Reduction Strategy (ERCERP, 2001), and then a National Development Plan (2003, 2004) were drawn up with the same objective: economic growth and poverty reduction. However, none of these strategies met expectations, minimizing commitments to education and health (McBain-Haas & Wolpold-Bosien, 2008; Hazell, 2004). Nevertheless, a change seemed to be underway, with the orientation shifting towards poverty reduction. Thus, new instruments for integrated rural development were being implemented, such as the PRORURAL sectoral plan, which promoted the growth of the agricultural sector by increasing productivity and implementing a territorial approach. However, public interventions failed to solve the problems, neglecting environmental and social aspects, as well as food production.

It was also during this period that food sovereignty emerged in the debates as a reaction to the conclusion of the Uruguay Round of the World Trade Organization that advocated food security through the market (Godek, 2014). Civil society and

Sandinista parliamentarians took up the concept of food sovereignty promoted by the *Via Campesina* movement and introduced it into the debates corresponding to a new bill aimed at the formulation of a National Food and Nutrition Security Policy (PNSAN). The bill never made it to the assembly vote, however, due to the political forces in play at that time (Godek, 2014), but an Action Plan (2001–2006) was proposed including new food policy instruments, such as the Comprehensive School Nutrition Program (PINE) for the provision of milk and snacks to children in state schools, following on from the National Action Plan for Nutrition (1990–1995) that provided for the monitoring of children's growth, and an Education for All program that included school nutrition as one of its priority areas of action. However, the level of school attendance in the country was low, which limited the scope of these instruments. The Ministry of Health and UNICEF provided support to several NGOs for maternal education and improved child nutrition (MINED & Nicaragua, 1995). A Social Safety Net (SSN), funded through a loan from the Inter-American Development Bank, provided cash transfers for poor families (Moore, 2009). The World Food Programme played a central role in coordinating and distributing food aid to implement these programs. With limited impact and implementation problems (concentration in certain areas, lack of coordination between implementing institutions, duplication of efforts), these instruments made it possible to improve food diversity (Hoddinott & Wiesmann, 2010) without improving the nutritional level of children (Gajate Garrido & Inurritegui Maúrtua, 2002).

The affirmation of institutional change with the enactment of the SSAN Law promoting food production and support for vulnerable populations

The election of Ortega as President of the Republic of Nicaragua in 2007 marked the start of a turning point, which continued with his reelection in 2011 and 2016. His government ensured a continuity of policies that promoted macroeconomic stability and investment. However, his National Human Development Plan (PNDH) strategy enabled the reorientation of policies (Le Coq et al., 2013) in the fight against poverty and hunger. The role of the State was strengthened with a new form of management for external cooperation (GRUN, 2012) and its prioritization of marginalized populations and the family economy, as evidenced by the creation of the Ministry of Family, Cooperative, Community and Associative Economy in 2012, which marked a change in agricultural policies in support of family farming (Perez & Fréguin Gresh, 2014) and historically marginalized populations.

This turning point in agricultural policy represented a third order institutional change: the frameworks for interpreting action changed during a period of alternation and normative uncertainty (Hall, 1997). The leaders relied on a set of existing diagnoses and instruments, including the Food Production Program (PPA) inspired by the work of a Sandinista ideologue (Núñez Soto, Cardenal & Morales, 1995; Núñez Soto, 1984), who became a presidential advisor on social issues in 2008. The latter put forward a document (CIPRES, 2007) that resulted in the development of a Food Production subprogram (MAGFOR, 2008) definitively oriented towards food production, referring to Hurricane Mitch as an event that allowed "highlighting the rural panorama of the tragedy (…) of Nicaragua" (p. 14).

Food security and food sovereignty became central to the poverty reduction strategy and its production and social programs, as well as education and health (McBain-Haas & Wolpold-Bosien, 2008). The PPA instrument prioritized food sovereignty, which formed the basis of Act No. 693, Nicaragua being one of the few countries to incorporate this concept within its policy (Godek, 2014). The change was consolidated with the development of another instrument, *PRORURAL Inclusivo*, which focused on family farming, poverty reduction, adaptation to climate change and strengthening food security (GRUN, 2009). In 2014, an intersectoral coordination system was established: the National System of Production, Consumption and Commerce (SNPCC) that integrated the Ministry of Family, Community, Cooperative and Associative Economy, Ministry of Agriculture and Livestock, the Ministry of Environment and Natural Resources, the Institute of Agricultural Protection and Health (IPSA), INTA and INAFOR. The SNPCC was piloted by *PRORURAL Inclusivo*. In fact, the positive evaluation of *PRORURAL Inclusivo* (GRUN, 2015; Kester, 2009) highlighted the need to consolidate intersectoral and interinstitutional coordination and organization. The SNPCC is responsible for developing annual plans,[4] the latest of which (2017–2018) is aligned with PRORURAL Inclusivo, with the objective of "guaranteeing unrestricted access of Nicaraguan products to internal and external markets, promoting research and market promotion, in accordance with foreign trade treaties and agreements, and signing new trade agreements to diversify goods and trade partners" (GRUN, 2018).

Act No. 693 of 2009 on Food and Nutritional Sovereignty and Security (SSAN) sought to guarantee the population's right to food (enshrined in the constitution since the 1980s) and position national food production, the promotion of environmental and economic sustainability of the food system and inclusion, with emphasis on women, children and youth, as central issues. Its objective was to provide services along value chains, giving priority to food chains (rice, beans, maize, sorghum, meat, milk and derivatives), as well as to increase food productivity, conditions of access to employment and productive resources, food education, food sanitary controls, coordination of public institutions and private organizations. It adopted a territorial approach to development and inclusion to address risks (Asamblea Nacional de la República de Nicaragua, 2010). This policy focused on the availability and stability of food production in terms of both quantity and quality. The priority beneficiaries were marginalized populations in poor regions (micro-, small and medium-sized agricultural producers, indigenous populations), while other types of producers benefited from incentives for innovation and technology transfer. Finally, the law stipulated that non-agricultural populations may benefit from food aid and other types of support to help them enter the labor market (aid to promote handicraft activities or MSMEs).

The SSAN law made it possible to establish the instruments of the, now sole, agricultural and food policy: i) the National Food Program (PNA), an integration of the Food Production Program (PPA) also known as "Zero Hunger" and the "Healthy Kitchen Gardens" (*Huertas Sanas*) Program, aimed at the production of basic grains, improving access to and consumption of healthy food; ii) the National Rural Agro-Industry Plan

4. The SNCPP also operates at the subnational level with the creation of spaces for dialogue (working groups, for a time called Territorial Research and Innovation Hubs) that aim to strengthen the participation of stakeholders in certain sectors in sectoral discussions.

(PNAIR) aimed at increasing the added value of production by promoting post-harvest and processing activities; iii) the National Forestry Program (PNF), promoting the rational exploitation of forests. At the same time, other public institutions developed instruments to improve the road network in milk and coffee production areas and access to financial services, education, health, tourism development and security. After 2014, while the main policy instruments remained in place, others were also implemented, such as programs focused on agricultural production in general (rice, sorghum, coffee, cattle), and social policy instruments based on earlier versions: the Comprehensive School Nutrition Program (PINE or School Meals) continued as part of the revised Strategic Education Plan. The innovative nature of most of these instruments is the result of the emphasis on the active participation of women and parents as key figures in the development of their families and villages.

The content of the SSAN Law is, in some respects, reminiscent of the policy of the 1980s, but applied in a completely different context, in the absence of internal and external tensions and pressures. The role of external cooperation agreements signed by the Nicaraguan government that facilitated the implementation of the instruments should be highlighted, as is the case of the Treaty signed within the framework of the Bolivarian Alliance for the Peoples of Our America (ALBA), ratified in 2008, which aimed to jointly formulate and implement SSAN instruments. Within this framework, Venezuela purchased Nicaraguan products in exchange for financial support for the agricultural sector (McBain-Haas & Wolpold-Bosien, 2008), which was funded by the PPA until 2016, along with other funds allocated from the government budget and other donors (Kester, 2009). The funds to finance the PINE came from the State budget, the European Union, the WFP, and other bilateral cooperation and international organizations.

An institutional change with mitigated effects: the limitations of the implementation of the PPA and the PINE in Chinandega

Field surveys reveal, on the one hand, that the content of the programs studied is consistent with the content set out in the SSAN law. The beneficiaries of the PPA are women, which is a positive aspect of the program (Carrión Fonseca, 2015). It is based on donations of productive assets to identified poor women to strengthen food production and capitalization of their families. The donation of inputs (cows and sows, chickens and roosters, seeds, tools, construction materials, etc.) follows criteria defined by the law and interpreted by officials operating in the region, and is combined with technical assistance, training and funding. The beneficiaries are required to manage a savings account to repay 20% of the value received through a rural credit cooperative for the development of their communities. The Ministry of Family, Community, Cooperative and Associative Economy is responsible for operational planning and its officials for local implementation. As for PINE, its impact is reflected in the daily provision of balanced meals in state-run preschool, primary and secondary schools, with the hope of increasing school attendance.

The surveys also, however, indicate the existence of very specific conditions for program implementation. In fact, they reveal the central role played by certain local organizations, as in the 1980s, when many revolutionary leaders lacked technical and

managerial skills (Austin, Fox & Kruger, 1985). The Family, Community and Livelihood Cabinets (*Gabinetes de Familia, Comunidad y Vida)*, inspired by the Sandinista Defense Committees (CDSs) of the 1980s, play an important role in the selection of beneficiaries for public programs. Set up in 2008, as National Citizen Power Councils (*Consejos del Poder Ciudadano* or CPCs) and renamed in 2013, the *Gabinetes* are closely linked to the Sandinista Leadership Councils (CLS) (they exist in rural communities and urban and peri-urban neighborhoods) that form the structure of the FSLN (Ortega's governing party) at local level. Since their inception, the role and legitimacy of these actors has been debated (Stuart Almendárez, 2009). All interviewees cited them as key and influential actors in local decision-making and program implementation: while their mandate is to strengthen links between the state and communities, and to stimulate social participation in decision-making on the ground, the *Gabinetes* carry out technical inspections and influence the choice of beneficiaries, in theory (but not always in practice) in coordination with administrative actors.

According to the surveys, the *Gabinetes* are made up of individuals that are (self-) appointed as community leaders, which makes them, for some, legitimate decision-makers in view of their knowledge of the local people. However, their legitimacy depends on local political forces and the personal ethics of their representatives, making their role in the implementation of the instruments a sensitive element (Finnegan, 2011; Kester, 2009). Surveys confirm a selection bias between women who are part of the governing political party, and the others. The archival account of Ministry of Family, Community, Cooperative and Associative Economy officials does not explicitly reveal this criterion, but it is mentioned by the administrative actors interviewed. If that indeed has been the case, it calls the universality and non-discrimination promoted in the SSAN law into question. This is even more so because the surveys reveal that other non-explicit criteria exclude some of the potential beneficiaries: this is the case of families with relatives that migrate that the officials do not classify as being poor and are, therefore, excluded from the programs. This situation illustrate the role of front-line officials or "field bureaucrats" (Dubois, 2012), who interact directly with the population. Their role is not limited to a strict application of the instruments, these being non-univocal and offering the possibility of reinterpretations and adaptations for singular cases. For example, many respondents reported a clientelistic system that has existed for decades (Pérez Márquez, 2007; Envío, 2015), which is an indicator of path dependency.

Finally, the analyses demonstrate the limited effectiveness of the instruments. According to the surveys, Zero Hunger is implemented in all municipalities of Chinandega. But, the records of the officials in charge of implementation in 2016 indicate the low number of beneficiaries: only 537 beneficiary families in the municipality of Cinco Pinos at the date of the survey, for a population of about 6,800 people, a percentage below the level of poverty and involvement in the agricultural sector at municipal level. In addition, men may have also benefited from the program in some cases because, given that women rarely own plots of land, the gender criteria for implementing the program could not be met. Certain limitations of the PINE program have also been highlighted. According to MINED, it is implemented in all state-run schools and only applies to school-age children. However, the capacity of the educational infrastructure is limited, although we could not

obtain the enrollment rate in the study region. But it can be assumed that it follows the trends in the country: although the numbers are increasing, only five out of ten children complete elementary school (Näslund-Hadley et al., 2012). According to the surveys, many children, especially girls, do not attend school, particularly at preschool level. Some parents revealed that they did not wish to send their daughters to school because they help with household chores and, as schools are often far away, they are not always able to walk them there.

Another limitation in the implementation of these instruments is the nature of the products delivered. The food donated by PINE comes from ENABAS and processors linked to the state. According to the WFP interviews, the products are largely sourced from national family producers, who receive quality controls. They are rarely imports, but in some cases, the donations do not correspond to the preferences of the children (case of dates donated by Saudi Arabia as school snacks for indigenous children, who were unfamiliar with the product). In the case of Zero Hunger, while the composition of the donation is fiercely debated, the limitations correspond to the quality of the donations (Finnegan, 2011; Kester, 2009). Concerns about supplies from potentially sick animals, led to a requirement for the screening of suppliers in IPSA health records. After donations, respondents mentioned the low level of follow-up by officials. In the case of PINE, MINED conducts regular meetings with school directors and makes three annual visits to monitor food quality and storage, and the Ministry of Health provides them with health and nutrition training. In the case of the PPA, the Ministry of Family, Community, Cooperative and Associative Economy provides training to beneficiaries to increase productivity and promote women's association and empowerment. However, according to the surveys, these training sessions fail to make provision for power relations that exist within households, or address the gender division of labor, which remains a source of women's vulnerability in the study region. Although the Ministry of Family, Community, Cooperative and Associative Economy organizes visits so that the beneficiaries can become promoters of the knowledge acquired, these visits are irregular and insufficient due to the short supply of officials to serve families living in dispersed and isolated communities. As such, the instability (sometimes deficiency) of the support is mentioned.

⏩ Conclusion and outlook

This chapter highlights the existence of a critical juncture in the late 2000s in Nicaragua that led to a gradual institutional change in the area of agriculture and food, further consolidated in 2007 following Ortega's election. It is observed that the antecedents to change, particularly those of the 1980s, a crucial period in national history, were remobilized in part to reorient the trajectory and reposition the fight against poverty and hunger at the center of policy. While Nicaragua has historically followed a model based on agrarian capitalism and agro-export to the detriment of food and peasant production, the turning point that occurred during the 1998–2001 period, which was subsequently affirmed following the 2008 election, again prioritized family agriculture, fundamentally food-producing. According to the last agricultural census of 2011, family farming is the predominant form of production in Nicaragua, in operation on more than 85% of farms (Perez & Freguin-Gresh, 2014).

With this new trajectory, the instruments that intervened in the food system reoriented social and production programs aimed at the poorest and historically excluded populations, with the objective of promoting food sovereignty and security.

At the same time, we show that the effects of institutional change are ambivalent, a conclusion underscored by other studies (Finnegan, 2011; Kester, 2009; Solornazo, 2016; Tschirley, Flores & Mather, 2010; Carrión Fonseca, 2015). The implementation of the two flagship instruments of the agricultural and food strategy, the "Zero Hunger" and "School Meal" programs, demonstrate significant limitations in terms of governance, particularly in relation to the beneficiary selection process in which surveys reveal the existence of partisan clientelism. This calls the universality and inclusiveness of these programs into question, including the PPA. There is also the question of the sustainability of these instruments that have faced significant difficulties since the support from ALBA has been withdrawn.

At a time when the country is once again going through a period of turbulence and uncertainty since the 2018 demonstrations, worsening the economic situation for a large proportion of the, still vulnerable, population, the question arises as to whether the progress facilitated by this latest institutional change in the country's history has managed to effectively combat poverty and hunger in a sustainable manner. According to official figures, poverty in the country has been significantly reduced in the past ten years (INIDE, 2016). However, FAO and PAHO (2017) reveal that the number of undernourished people in Nicaragua has remained the same since 2013, which would suggest that the policies implemented have not be as effective as advertised. If we draw a parallel with the situation in another country, Brazil, that implemented social and production policies for more than a decade (some of which inspired the PPA and PINE and even share the same names), with significant results that were thought to be sustainable until 2016, there is an urgent need to understand whether or not these institutional changes have provided effective responses in the fight against hunger in Nicaragua.

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