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Responses to the Crisis of Neo-liberal Globalization: State Intervention in Palm Oil Production in Chiapas, Mexico

HÉCTOR B. FLETES-OCÓN AND ALESSANDRO BONANNO

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Abstract. Employing the case study of the cultivation of African palms for the production of palm oil in Chiapas, Mexico, this article probes the theme of alternative patterns of development to neo-liberal globalization. In particular, it discusses the issue of the return to state intervention (neo-Fordism) as an instrument to promote socio-economic development. Chiapas has been the theatre of the Zapatista movement of 1994. As a result of that popular uprising and despite its overtly neo-liberal posture, the Mexican state intervened significantly in Chiapas. In this context, the monoculture of the African palm has been pursued as a strategy to address local poverty among farmers, generate alternative and renewable forms of energy and provide a scheme for socio-economic growth in the area. This article illustrates the contradictory results of this 'interventionist' developmental project and the consequences and resistance that it entailed. The analysis of this case reveals the problematic nature of nation-state led interventionist schemes in a context marked by the emerging crisis of the neo-liberal model. It also underscores the significance of local initiatives that are generated by the aspirations and abilities of local residents.

Introduction

In the 1970s, the crisis of the Fordist regime (O'Connor, 1974; Habermas, 1975; Bonanno et al., 1994) ushered the era of neo-liberal globalization (D. Harvey, 2005). For the last three decades, neo-liberalism has offered the ideological underpinning for the construction of an increasingly global capitalism. The claim that the economy and society work better when the market functions autonomously and is free from state intervention and regulation defines our times. Characterized by a high level of capital mobility, deregulation, expanding transnational networks of production and consumption, global private standards, and accelerated exploitation of labour and natural resources, neo-liberal globalization is the dominant form of contemporary

Héctor B. Fletes-Ocón is Lecturer at the Department for Postgraduate Research, Autonomous University of Chiapas, Tuxtla Gutiérrez, Mexico. Alessandro Bonanno is Texas State University System Regents' Professor of Sociology at the Department of Sociology, Box 2446, Sam Houston State University, Huntsville, TX 77341-2446, USA; email: <soc_aab@shsu.edu>. The research upon which this article is based was partially sponsored by FORDECyT (CONACyT) Mexico, in the context of the project 'El papel de los pequeños productores en la agricultura y alimentacion. La experiencia desde tres regiones agrícolas en México'.

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capitalism (Stiglitz, 2003; D. Harvey, 2010; Bonanno and Cavalcanti, 2011). In recent years, however, recurrent economic, political, and social crises have allowed many commentators to contend that neo-liberal globalization has experienced a legitimation crisis: neo-liberalism cannot keep its promises to society, and its class dimension is overt (e.g. Lupel, 2005; Helleiner, 2010; Dumenil and Levy, 2011; Raulet, 2011; Overbeek and Van Apeldoorn, 2012). Similar arguments have been made for agriculture and food (Busch, 2011; Bonanno, 2012). The essence of this position can be summarized in three points. First, the theory of neo-liberalism is far removed from reality. There are too many unjustified assumptions and inadequate interpretations about the functioning of society to justify the statement that reality is accurately reflected by this theory. Second, the outcomes of neo-liberalism favour dominant groups overwhelmingly. The world elite, the so-called 'one percent' (Flank, 2011; Van Gelder, 2011; Byrne, 2012; Collins, 2012), has benefited enormously from neo-liberalism while the middle and lower classes and the global poor have seen their socio-economic conditions deteriorating. Third, the application of neo-liberal measures leads to recurrent economic, social, and environmental crises. Often, solutions to these crises have not been sought through free-market oriented measures but through state intervention. From the financial sector to natural disasters, to employment and economic growth, the market has not been able to address crises. Conversely, calls for state intervention (i.e., bailouts, clean-ups, stimulus programmes) have been seen as more desirable and have been proposed from all sides, including global corporations.

It is this recurrent request for state intervention that represents the backbone of arguments about the developing legitimation crisis of neo-liberalism and the attractiveness of neo-Fordist state interventionist strategies (Underhill and Zhang, 2008; Tabb, 2010; Krippner, 2011; Krugman, 2012; Pollard, 2012). Despite calls for less regulation stemming from the intellectual and political right (Bhagwati, 2004; Cohen and DeLong, 2010; Greenwood, 2011), state intervention has emerged as the most commonly sought and practiced response to the crisis of neo-liberal mechanisms and of neo-liberal globalization itself. Summarizing this sentiment and lauding the virtues of the Fordist era, the left-leaning economist and Nobel laureate Paul Krugman (2012) contends that, today, Fordist-style state intervention can generate both balanced economic growth and a much more just society.[1]

Literature on the legitimation crisis of neo-liberalism (e.g. Lupel, 2005; Helleiner, 2010; Raulet, 2011; Overbeek and Van Apeldoorn, 2012; for agri-food, see Wolf and Bonanno, 2014) underscores that the search for solutions to the various crises of neo-liberalism (i.e. financial, economic, environmental, social and political) generated two major types of responses. The first camp proposes a greater dose of free market mechanisms (e.g. Bhagwati, 2004; Cohen and DeLong, 2010; Greenwood, 2011). It is argued that the market is still very much constrained by state intervention and regulation. Therefore, further deregulation, reduced state intervention and austerity measures are the prescribed solutions. The second camp (e.g. Lupel, 2005; Raulet, 2011; Krugman, 2012; for a review of this literature, see Hudis, 2013) contends that in mature capitalism, market mechanisms engender instability and crises. Accordingly, it is enhanced state intervention that is required to address existing problems. They call for the end of austerity politics and propose a return to Fordist-style state intervention and policies (neo-Fordism). Most of the positions within this camp do not necessarily subscribe to the 'regimes of accumulation' thesis. In these accounts, rather than a regime, neo-liberalism is seen as a complex of actions and ideological

constructs that is dominant in society but that can be, and is, opposed. It is not necessarily a system, but it represents those more or less organized forms through which the dominant class attempts to maintain power. Alternative actions based on different ideological constructs are possible. A return to enhanced state intervention in the economy and society, they content, is the desirable solution for current problems.

As these neo-Fordist calls for a return to an interventionist state characterize debates over the evolution of neo-liberal globalization, doubts remain about the effectiveness of a solution that has encountered significant limits and criticisms in the past (O'Connor, 1974; Habermas, 1975; Lipietz, 1992; Wolf and Bonanno, 2014). Accordingly, the objective of this article is to probe the effectiveness of calls that wish to propose more state intervention. We wish to contribute to discussions that seek alternatives to neo-liberalism but also contemplate concerns about the use of state intervention. Ultimately, we would like to offer some insights into the possibility that market mechanisms and state intervention may not necessarily be appropriate solutions to the problems of today's society.

This theme is probed by examining the consequences of the reintroduction of Fordist-style measures as solutions to the current crises of neo-liberalism. More specifically, this article offers some insights into the contradictions generated by state intervention in developmental schemes in agriculture and food in a less-developed region of the South. It studies the case of the implantation of palm oil production in the state of Chiapas in Mexico (see Figure 1).

This is a case in which the – otherwise neo-liberal[2] – Mexican state intervened to promote the cultivation of African palms for the production of agrofuel in the state of Chiapas. Because of the political, historical and socio-economic conditions that characterize Chiapas, and for the case of this state only, the Mexican state has maintained an interventionist posture that resembles past Fordist strategies as its

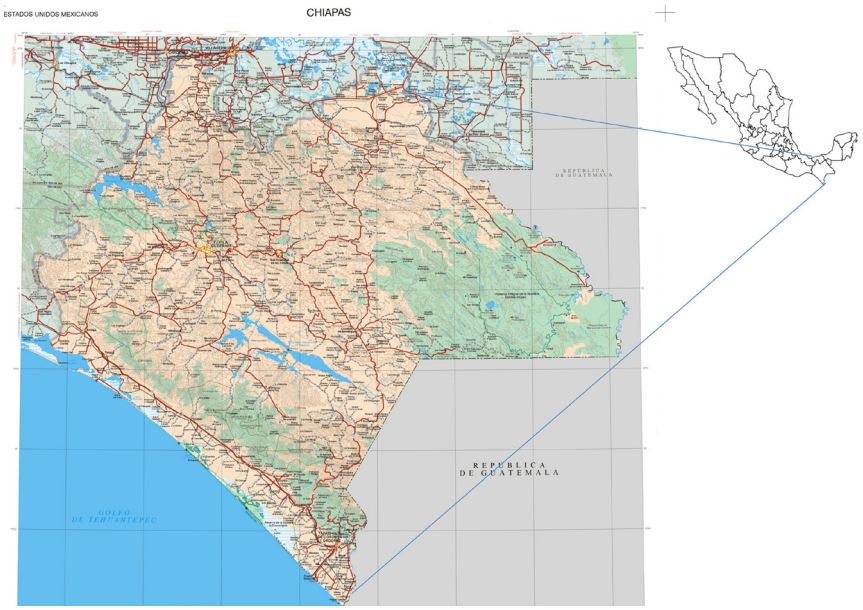

Figure 1. Chiapas, Mexico.
Source: authors' elaboration on map from Instituto Nacional de Estadística y Geografía.

double objective has been to promote socio-economic development and maintain social legitimation.[3] As indicated above, the research question that is addressed in this work refers to the desirability and effectiveness of a social system characterized by state intervention. While the complexity of this issue prevents this article from being exhaustive, this case study offers some elements that could contribute to the discussion on alternatives to neo-liberal globalization and new forms of Fordism (neo-Fordism) (Bonanno, 2012; Krugman, 2012).

We employed a case-study methodology. The case has been researched through the examination of existing documents and quantitative data, interviews with key informants, and site visits. Interviews were carried out in palm producing areas in the regions of Soconusco and Costa, which are among the primary palm producing regions in Chiapas (see Figure 2).

Data were analysed through the use of techniques of *saturation* and *negative cases* whereby the conclusions were confronted with alternative interpretations that were not selected. This posture allows for the generalization of conclusions (Berg, 2007; Bryant and Charmaz, 2007). This article is divided into five sections. The first analyses the historical context of the case. It discusses Fordism, its crisis, and the development of neo-liberalism in the context of globalization. The evolution of agriculture in Mexico under neo-liberalism is discussed in the second section, along with specific information on the state of Chiapas. The third section illustrates the case study, documents the expansion of the African palm culture for the production of palm oil, and discusses the contradictions associated with this process. The contradictory dimension of state intervention is analysed in the next section. Finally, from the case study it is concluded that alternatives to both neo-liberalism and new forms of state intervention could be desirable solutions in agriculture and food.

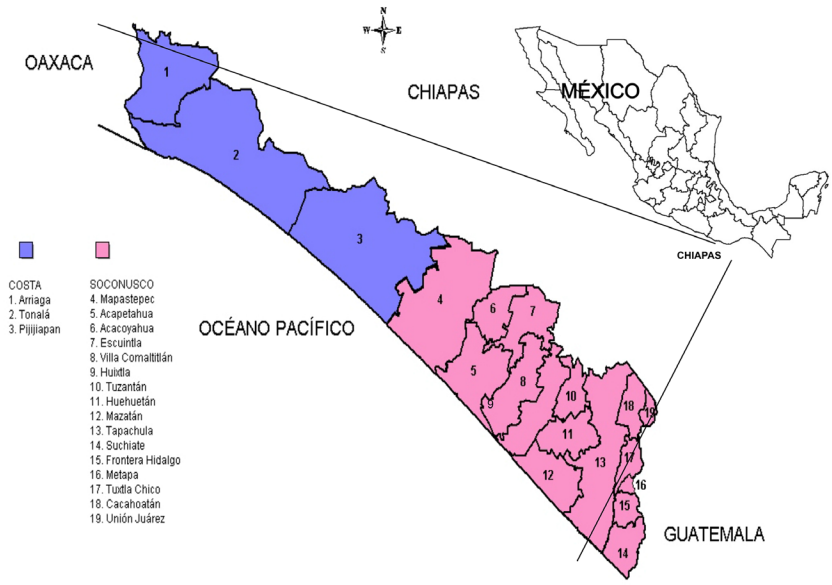

Figure 2. Areas of research, Soconusco and Costa, Chiapas, Mexico.
Source: authors' elaboration on map from Instituto Nacional de Estadística y Geografía.

Context: Fordism and Neo-liberalism

The setting for this research is the state of Chiapas in Mexico and the context is neo-liberal globalization (Prasad, 2006; Crouch, 2011). In the early 1980s, Mexico began to introduce neo-liberal measures in the governing of its economy and society (Merrill and Miró, 1996; Morton, 2003; Otero, 2004). This was part of the international process to address the crisis of Fordism (Aglietta, 1979; D. Harvey, 1989, 2005; Stiglitz, 2002; Bonanno and Constance, 2008). Throughout most of the twentieth century and, particularly, after World War II, Fordism was the system of organized capitalism that coordinated mass production and mass consumption, generated steady accumulation, enhanced democratic legitimacy, produced unparalleled economic growth and abundance, and forged a consumer culture. In advanced societies, the 'capital–labour accord' gave management ultimate control over the labour process and production, but organized labour was granted collective bargaining power to negotiate salary, benefits, and work conditions. Consequently, many workers shared substantially in productivity gains, and enjoyed much increased benefits. Participating actively in politics, unions helped to shape policymaking, planning, and labour legislation. The Fordist state employed Keynesian policies of advanced fiscal controls, broader socio-economic regulation, and expanded health, education, and welfare benefits. The middle class grew enormously, and many people attained the standard consumer package and sharply improved living conditions. Post-war Fordism enhanced inclusion of many formerly marginalized people, raised the social wage, and advanced equal opportunity and equality of condition, especially in social democracies. However, the middle class and the overall class system remained complexly and steeply stratified. The lowest strata benefited little, and sharp inequalities between dominant and subordinate races, ethnic groups, and genders, production workers and professionals, non-union workers and unionized workers, as well as the economic distance between developed and developing countries manifested the era's political compromises and pattern of bureaucratization. Inequalities of this sort existed to some degree worldwide. In the advanced North, Fordism was criticized particularly as state intervention and mediation were viewed as forms of oppression and domination over the masses (Marcuse, 1964; O'Connor, 1974; Habermas, 1975; Offe, 1985). In the case of the South, Fordism was viewed as a system that extended the control of core countries and their multinational corporations over developing countries and their people, increasing economic and political dependency and domination (Frank, 1969).

At Fordism's economic high tide, attacks came from all sides of the political spectrum for its alienating, depoliticizing, regimenting, homogenizing impacts. The intellectual right sharply criticized the political nature of state interventionism by showing its distortions and long list of unwanted consequences. In the classical manifesto of neo-liberalism, *Capitalism and Freedom*, Milton Friedman directly criticized Fordism in agriculture by lashing at commodity price support programmes (1982, pp. 181–182). Introduced to stabilize agricultural prices and support the income of farmers – in particular for those operating small family farms – but also to control surplus labour, they were viewed as instances of wasteful expenses, bureaucratization and inefficiency. For Friedman, price support programmes created unwanted surpluses, kept farmers on the land despite low income and poor expectations for economic growth, increased food prices for consumers and, paradoxically, discriminated against the very small, family farmers that they were supposed to assist. Government intervention altered the unbiased functioning of the market in

favour of a system determined through political negotiations and compromises that inevitably suffered from the influence of powerful special interests. In effect, Friedman argued that the creation of farm programmes in the US was the result of the over-representation of rural areas in the electoral system and Congress (1982, p. 181).

Equally critical of price support programmes were authors that wrote from the Left (Rodefeld et al., 1978; Buttel and Newby, 1980). Both the populist and Marxist Left attacked price support programmes for their ineffectiveness and inefficiency, waste of resources and, more importantly, for distributing funds in ways that discriminated against poor segments of society. These criticisms were not just limited to the US but equally applied to other parts of the world, including the European Union (then European Economic Community), Japan and Australia (Johnson, 1973; Mottura and Pugliese, 1980). Sharply opposing pronouncements of supporters of neo-liberalism, the Left called for more democratic forms of state intervention that would bring substantive equality, freedom, and well-being to society (Jessop, 1982; Carnoy, 1984; Offe, 1985).

In less-developed countries such as Mexico, the benefits of Fordism were less visible. Yet and despite contradictory policies, state intervention redistributed resources, created needed infrastructure, and allowed a good portion of the numerous peasant class to stay on the land (Hewitt, 1999; Otero, 1999, 2004). While social inequality and instability remained high and the urban elites increased their power and wealth, price-support programme mechanisms, land redistribution measures, investment in infrastructure, and entitlements de facto contained migration from rural to urban areas and to the US and guaranteed low but sustainable living standards to rural residents. To a significant extent, peasant agriculture was supported and its development encouraged (Weller, 1998; Hofman, 2000). In Mexico, import substitution strategies initiated in the 1950s boosted industrial production and productivity while the stable exchange of the peso promoted exports. The result was a significant expansion of the economy that, by the end of the 1960s, enabled Mexico to be largely self-sufficient in food crops and most consumer goods (Merrill and Miró, 1996; Pechlaner and Otero, 2010). In agriculture, investment for the creation of infrastructure expanded cultivated land while efforts in extension improved the quality and quantity of production, including that generated by the peasantry. To be sure and despite these improvements, the problems of poverty and immigration remained (Galarza, 1964; Merrill and Miró, 1996; Hewitt, 1999; Otero, 2004).

By the early 1970s, more competitive international markets, high social welfare costs, the oil crisis, recession, social resistance, and other problems led to Fordism's demise. Supporters of neo-liberal globalization saw the Fordist state to be the cause of economic contractions and related social pathologies. The appeal of neo-liberal ideology and Anglo-American efforts to weaken labour, slash the welfare state, reduce wealthy people's tax burden, deregulate the private sector, and privatize the public domain undermined Fordism. Particularly successful was the neo-liberal design to replace the politically driven state intervention with 'neutral' market forces (Habermas, 1975). Friedman and like-minded neo-liberal theorists argued that state intervention is always influenced by powerful interest groups and rarely works efficiently and to the benefit of the intended groups. Conversely, market forces operate in ways that are independent from particular interests and tend to reward meritorious groups and actions. Through market forces all people will receive what they deserve (Friedman, 1982, pp. 180–185). The appeal of this proposal was significant as it represented a credible alternative to the dissatisfying inefficiency and ineffec-

tiveness of state intervention and its wasteful costs, large bureaucracy, and frequent abuses (Friedman, 1982).

The establishment of neo-liberal globalization marked an era in which the application of market mechanisms, a much reduced social state, and the enhanced mobility of capital characterized the economy and society. Equally important was the subordination of political decisions to market forces. The pursuit of profit in the free market was elevated as the most fundamental condition of the operation of society (D. Harvey, 2003, 2005). This economization of politics defined neo-liberal globalization (Bonanno and Cavalcanti, 2011).[4]

As neo-liberal globalization expanded, contradictions mounted and economic, social and political crises emerged. Solutions, however, were increasingly sought through state intervention rather than market mechanisms (Underhill and Zhang, 2008; Helleiner, 2010; Raulet, 2011; Pollard, 2012). While supporters of neo-liberal globalization called for additional market liberalization and austerity measures,[5] state intervention has been viewed as the most effective solution. Dismissing conservative and left-leaning arguments against Fordism, neo-Fordists stressed the relevance of state intervention at the economic, social and political levels. Economically (e.g. Krugman, 2012; Pollard, 2012), the importance of Keynesian economic policies (deficit spending and market regulation) was emphasized along with the historical ability of these policies to address deep recessions. Politically (e.g. Raulet, 2011), they denounced the neo-liberal posture that equates profit making with 'good for all' political decisions. This 'economization of politics', they contended, limited political participation of the middle and working classes. Giving priority to processes guaranteed by state intervention, they argued that balanced mechanisms that foster economic growth but also social stability should be achieved. Socially (e.g. Collins et al., 2008), neo-liberalism's restructuring of social welfare mechanisms and programmes largely eliminated their availability to, and effectiveness for, the working and middle classes. A return to state intervention in the social was viewed as necessary and a fundamental condition to stimulate demand, reignite socio-economic growth and generate pacified and stable social relations. Despite the relevance of many of these pronouncements, the fact that state intervention has not been as effective as hoped in the solution of problems has brought to the fore the question of the desirability of a return to Fordist style measures.

Setting

Mexico

In agriculture in Mexico, the implementation of neo-liberalism centered on the progressive elimination of state-sponsored programmes and opening of markets. Targeted were support programmes like those that supported peasant agriculture, local food production and consumption, and land redistribution. The acceleration of this process in the 1990s is symbolized by the reform of Article 27 of the Mexican Constitution, which de facto abolished the *ejido* system in 1992, and Mexico's membership of NAFTA (North American Free Trade Agreement) in 1994 (Cornelius and Myhre, 1998; Otero, 1999, 2004; Morton, 2003). The *ejido* system was one of the institutions directly derived from the Mexican Revolution of 1910–1920. It provided public land[6] to peasants and was intended to be a system in support of peasant agriculture. It also allowed the existence of networks of local food production that permitted *campesinos*

to have access to basic food stuff. The reform of the *ejido* system made this land available for commercial use. Simultaneously, the Mexican state ended its support of agricultural labour and de facto promoted its immigration to the US (A. Bartra, 2004). The signing of the NAFTA in 1992 and its implementation in 1994 opened Mexican agriculture to US and Canadian exports. Without the protection of government programmes, local farmers could not compete with producers from the North, and Mexico imports of basic food stuff increased rapidly and dramatically (González Chávez and Macías Macías, 2007). As a result, Mexican producers were forced to specialize in the export of high value products such as fruits and vegetables and relatively reduce the production on basic food products such as corn.

An important consequence of this change was the policy shift from the Fordist 'food security' to the neo-liberal 'market opportunities'. Under Fordism, one of the objectives of the domestic agricultural policy was to generate adequate production to satisfy the needs of the country and those of the poor and working population in urban and rural areas alike (Ramirez Silva, 1989). In this context, in the four decades following World War II, agriculture was identified as a strategic sector that could support the expansion of urban areas and the interests of the ruling class, but also control the overabundant rural labour force and deliver some benefits to peasants and small producers (R. Bartra, 1974; Ramirez Silva, 1989; Merrill and Miró, 1996). The neo-liberal shift to 'market opportunities', conversely, decoupled social goals from economic objectives and made the market-driven search for profit the essential dimension of the national agricultural policy. While a handful of producers benefited from neo-liberal measures and the growth of the export market, the vast majority of farmers experienced a deterioration of their living conditions, *campesinos* lost most of their ability to produce food for self-consumption and lower and middle classes urban consumers were hurt by food prices increases (González Chávez and Macías Macías, 2007; Pechlaner and Otero, 2010). There was a progressive impoverishment of the Mexican peasantry and small and medium producers as programmes created to alleviate the opening of the market were poorly funded and inadequate to improve production structures and productivity (Otero, 2004). As market forces and unfair competition from the North – commodity support programmes remained much stronger in US and Canada (Pechlaner and Otero, 2010) – depressed living conditions in rural areas, immigration increased (A. Bartra, 2004). Defined as 'the import of food and the export of farmers' (A. Bartra, 2004), neo-liberal agricultural policy worsened the conditions of many segments of Mexican society (Pechlaner and Otero, 2010).

Chiapas: Resistance to Neo-liberalism and Neo-Fordism

In the case of Chiapas, Table 1 indicates the extent to which the use of land devoted to the production for domestic consumption (primarily corn) has been redirected to the production of industrial or export crops. In this respect, the case of Chiapas follows the same pattern experience in the rest of the country (Lechuga, 2006). Yet the recent history and overall conditions of Chiapas are significantly different from that of the rest of Mexico. Located at the southern tip of Mexico, bordering Guatemala, Chiapas is synonymous with poverty, social marginalization, and a high concentration of 'indigenous population' or *indios*. The most recent official data indicate that about 32% of the local population is defined as 'indigenous'. Although agricultural production has historically been the primary economic activity, in the last 20 years

Table 1. Land employed for principal crops in hectares, Chiapas, changes 1993–2011.

Year	1993	2001	2008	2011
Corn	744926	938908	699921	711199
Coffee	231328	241029	254275	257367
Beans	97520	126353	118471	118391
Palm	3,823	16793	19290	38525
Sugar cane	20651	27496	28817	31584
Mango	13101	17656	25979	26484
Banana	22599	23845	25007	24355
Cocoa	30000	22637	19781	19717
Sorghum	8,133	13431	14862	13306
Soy	6,868	11978	10614	14366
Sesame	1,359	9,544	8,388	9,073
Watermelon	1,707	1,267	2,363	1,779
Rice	2,119	847	1,406	523
Beef	NA	2531102*	2387567	2538781
Pork	NA	674882*	780429	772644

Note: *data refer to 2002.
Source: authors' elaboration on data from Servicio de Información Agroalimentaria y Pesquera.

the average size of local farms has decreased from 13 to 8.6 hectares and the number of farms that remained active in agriculture has also decreased from 99.5% to 88.2% of all farms (INEGI, 2007). This was the result of a complex set of factors that included the fragmentation of property due to inheritance (land divided among the members of the farm family) and the use of land for alternative activities. In this context, more production has been directed toward fruits and vegetables and crops for industrial use, such as the African palm sugar cane and mango, and less toward food crops for local consumption.

On January 1, 1994, as NAFTA took effect, the Zapatista Army of National Liberation (or EZLN) initiated a rebellion against the Mexican government. They denounced the exploitative nature of neo-liberal globalization as the claim of 'land, freedom and self-determination for the indigenous people and the dispossessed' echoed around the world. What became a peaceful movement forced the neo-liberal Mexican government to grant local residents significant autonomy. Simultaneously, the Mexican government inaugurated a policy of support and socio-economic intervention in Chiapas with the declared objectives to combat poverty and promote development. However, the actual agenda had social control and the appeasement of the large pro-Zapatista international public opinion as its unspoken goals.[7] In essence, the otherwise neo-liberal Mexican state initiated a Fordist style interventionist strategy to exercise social control in Chiapas.

In this context, the state of Chiapas was granted a de facto special status, and the issues of autonomy for the indigenous people, socio-economic growth, resistance to social exclusion, and opposition to neo-liberalism constantly occupied centre stage in the international arena. This situation translated into a continuous economic intervention of the Mexican state in Chiapas as, in 2011 alone, the Mexican government spent the equivalent of USD 0.5 billion for programmes in this state. Among these government-sponsored programmes were the 'social development' and the 'fight against inequality' initiatives. These types of Fordist programmes received almost two third of the funds and significantly more than other and more market-

oriented projects such as the Chiapas Competitivo y Generador de Oportunidades (for a competitive Chiapas creator of opportunities). Additional funds were made available through international programmes that provided resources to the Mexican government (Sabines, 2011). It is important to stress that these programmes were directed primarily to small farms as farming remains a fundamental component of the local economy (Sabines, 2011).

The Case

The Expansion of African Palm Production and the Politics of Agrofuel

One of the programmes initiated by the Mexican state in Chiapas consisted of support for the cultivation of the African palm. The rationale for this intervention rested primarily on two items. First, the Mexican government sought ways to legitimize its actions in regard to the poor socio-economic conditions of, and political instability in, Chiapas. In particular, the deep-rooted problem of poverty in the region remained too visible and required intervention. Additionally, the domestic but, above all, international public opinion depicted the Mexican state's actions in Chiapas as 'authoritarian'. Programmes that would mitigate this negative image appeared necessary and desirable (Morton, 2011; Ramor, 2011). Second, a wave of protest against the instability of, and increases in, corn prices and concerns over the use of food crops for the production of ethanol prompted the Mexican government to attempt to reduce the use of fossil fuel through the production of renewable energy sources that did not involve corn and other food crops. Because of its agronomic performance,[8] the cultivation of the African palm was identified as an effective means to produce agrofuel (Ramirez Zamora, 1991; Pineda Morales, 2009).

Funds for the African palm project came also from the local government. Both federal and local state officials defined the African palm project as an opportunity to stimulate the local economy and create growth for the impoverished local population while contributing to the energy and food questions. Reducing the amount of food crops used for energy production had become a widely supported proposition. This rationale was reminiscent of Fordist plans as it contemplated the implementation of productive activities whose declared objectives were the socio-economic development of local communities and their social stability. These objectives broke with calls for 'market opportunities' that had defined the actions of the Mexican state since the 1990s (Morton, 2011).

To be sure, in this project the federal government took a much more prominent role than the local government even though the local government enacted many of the project measures. Following a tradition of centralized authority and reduce local autonomy, the hierarchical posture that characterized federal–local state interaction in Mexico was reproduced (A. Bartra, 2004; Morton, 2011). In this context, Chiapas state officials acted in ways that adapted to the requirements of Federal plans. Concerns about often-imposed sanctions – such as reduced budget allocations and the curtailing of political careers of local officials – shaped the moves of the officialdom of the local state. Exceptions to the strict control of Federal authorities consisted primarily of situations in which local mobilization supported local government's actions. In Chiapas during the years of the Zapatista uprising, the relationship between the EZLN and the local government represents a case in point (N. Harvey, 1998; Collier, 2008).[9]

Originally cultivated in Guinea, West Africa, the African palm was imported to South and Central America in the twentieth century. Along with Mexico, six other countries – Colombia, Ecuador, Costa Rica, Honduras, Brazil, and Guatemala – have been actively engaged in its production. In Chiapas, the palm appeared in the 1950s (Ramirez Zamora, 1991; Pineda Morales, 2009). The weather, humidity, and height and depth of the soil in the area proved a perfect ecosystem for its development, and, today, palm oil has become one of the most profitable products for vegetable oil. The oil is divided into 'crude oil' and 'kernel oil'. The crude oil is generated from the crushing of the palm fruit. Kernel oil is extracted from small almond-like fruits that can be found in the centre of the palm. Both types of oils are widely used as they are employed as primary ingredients in the production of more than 200 items and as components for about 900 more in a variety of industries, including food, house and cleaning products, and cosmetics (Pineda Morales, 2009). In Mexico, the production of palm oil is distributed in three regions of the tropical humid South and Southeast. In the South in the state of Chiapas, palms are produced in Soconusco, Costa and Selva regions. In the Gulf of Mexico, production is concentrated in the state of Veracruz and in the state Campeche. Chiapas is the largest and most efficient producer, with about 67% of the total land cultivated, 81% of production, and the highest yield (17 metric tons per hectare in 2010) (López Trujillo, 2007, p. 47; SIAP, 2010).

In 1952, 30,000 seeds were imported and planted on 200 hectares by a local firm. The establishment of this first commercial plantation was accompanied by the construction of the first plant for the extraction of the oil. Later, this firm introduced new seeds from the Ivory Coast and increased production on 700 hectares (Ramirez Zamora, 1991, p. 5; Velasco, 2010). Growth was steady but remained relatively limited. In was in the mid-1970s that the National Commission for the Cultivation of Fruits (CONAFRUT) began to promote the crop. For this purpose and until 1982, CONAFRUT imported more than one million seeds from Indonesia, the Ivory Coast, and Costa Rica and equipment with the processing capacity of two tons of fruits per hour. In the following years, planting spread through the area and palms appeared in a number of communities. Yet, problems seemed to outnumber benefits. Issues with crop management, poor skills in the processing of the fruits, and limited availability of funds to finance operations were listed as reasons for the poor performance of the crop by the Mexican Department of Agriculture. In effect, limited extension support and experience with the crop prevented farmers from achieving desired results.[10]

In the 1990s, the political instability and social protest generated by the action of the Zapatista movement, and, to a lesser extent, the search for alternative energy sources created impetus for state intervention. A new push to increase palm oil production began in 1996, during the government of Ernesto Zedillo. At that time, palm oil demand amounted to 130,000 metric tons, but domestic production could satisfy only 3% of this demand. Accordingly, the federal government proposed the cultivation of an additional 2.5 million hectares. Among the states selected for the project, Chiapas occupied a central position (Pineda Morales, 2009). State intervention continued into the new century and the Ministry of Rural Development of Chiapas supported by federal funds established the Palm Oil Production System in 2004. This programme was implemented in the Soconusco region in 2006, under the name of the Palm Oil Programme.

The administration of President Calderón (2006–2012) proposed a more sophisticated policy that specifically attempted to legitimize state actions while fostering

processes of capital accumulation. Faced with the contradiction between food production and the cultivation of crops for alternative energy sources, this Administration recommended the cultivation of African palms on marginal land only. '[I propose]', Calderón wrote, 'the utilization of marginal land to obtain the inputs necessary for the production of agrofuel. This process should not affect food security and should not affect the security of the environment'. Dwelling on this strategy, two programmes were created: the 'Programme of Sustainable Production of Inputs and the Programme of Introduction of Bioenergetic Products' (Calderón, 2008, pp. 266, 267). Following these directives, in Chiapas, state intervention in agriculture was shaped to go 'beyond food production' and develop new energy sources to meet the challenges of the society and the needs of the Mexican population (Sabines, 2007, p. 219).

In support of this strategy, in February 2008 the act named Promotion and Development of Bioenergy was passed. Its objective was to foster energy diversification and sustainable development in order to guarantee support for Mexican rural areas. Following the approval of this act, in May 2008, the federal government introduced the Inter-sectorial Strategy for Bioenergy. It called for 'the promotion and expansion of production lines of biomass inputs and the production of bioenergy that would promote energy security through the diversification of energy sources. It would generate and integrate synergies and provide support for sustainable rural development' (Calderón, 2008, p. 209). The government further developed the programme Sustainable Production of Inputs for Bioenergy and for Scientific and Technological Development. In this context, it was established to bring to production 300 000 hectares of African palm with a first installment of 70 000 hectares in 2009 (Calderón, 2008, p. 209).

The Calderón administration and the local state viewed the promotion of agrofuel as part of the overall process of intervention for the modernization of Chiapas and as a way to address social, environmental, and economic concerns. An official statement – aptly named 'productive reconversion' – described this effort accordingly: '[Our objective] is to promote the substitution of traditional crops, such as corn for self-consumption, that affects the environment [sic], with others that are sustainable and that maximize profit' (Government of Chiapas, 2009, p. 1). The state government further proposed the Chiapas Solidario Development Plan for 2007–2012. According to this programme, priority was given to the introduction of new agrofuel-oriented crops given the limited availability of renewable energy in Mexico. Moreover, a report of the Mexican Petroleum Institute underscored the importance presented by future diversity of fuel markets in the case of both fossil and renewable energy (Sabines, 2007, p. 218). It also argued that the introduction of new crops for renewable energy would generate new research for agrofuel production with limited or no environmental impact, such as biodiesel, ethanol, hydrogen and methane. In 2007, the state of Chiapas established the Institute of Bioenergy and Alternative Energy and, just in the region of Soconusco, three palm nurseries. These nurseries supplied plants to producers at no cost (Pineda Morales, 2009).

To be sure, the neo-Fordist dimension of this posture was tempered by appeals to market conditions. Featuring a deficit in vegetable oils and fats, in 2012 Mexico imported about 85% of its 400 000 ton demand of palm oil. The Chiapas state government calculated that 'it would be necessary to have a production area of about 115 000 hectares, with an average yield of 18 tons per hectare, for 2 million tons of crop to cover the domestic demand' (IRBIO, 2011). To that end the state of Chiapas

planned to plant palms on 100 000 hectares during the six year period of 2007–2012. It was hoped to have 68 000 hectares operational in 2011 (IRBIO, 2011). Arguing that agrofuel production should 'provide a greater amount of renewable energy for public transport', the state built three processing plants in Tuxtla Gutierrez, Cintalapa, and Puerto Madero. As the price of palm oil remained high and following the decoupling of agricultural production from food production, numerous political and business actors decided to pursue the cultivation of the African palm rather than food crops. Indeed, the land devoted to the production of palms increased by 19 000 hectares from 2008 to 2011.

Pronouncements about the effectiveness, extent, and benefits of state intervention contradicted the outcomes of this process. In the early stages of the programme, the state provided support to farmers through a variety of programmes, including the establishment of fields, cleaning, fertilization, and harvesting as well as direct payments. Later, most of these programmes ended because of fiscal problems of the state. In recent years, support has been limited to the delivery of the young plants and minor support for the first year of operation. Additionally, despite state claims about the use of palm oil for agrofuel production, it has actually been employed exclusively for other industrial uses. The lack of infrastructure, the unavailability of an ineffective distribution system, and production costs higher than those of fossil fuel have prevented the expansion of agrofuel in Mexico. Accordingly, state intervention has remained characterized by fiscal problems while state pronouncements present an image that is different from the actual development of the region. It can be argued, therefore, that state intervention is not only limited by fiscal problems, but attempts to legitimize it clash with an overtly different reality.

To be sure, farmers did respond to these government programmes by increasing their participation in the cultivation of the African palm. Interviews with local producers indicated that they perceived an advantage in producing palms primarily because of market conditions. The fact that the state provided free trees was considered important, yet secondary. These two factors, local farmers contend, created significant incentive to initiate implantation of the monoculture. They pointed out, however, that the transition from food to industrial production was not without problems.

First, because of higher prices, farmers planted palms on prime land. The planting of palms on land that has been employed traditionally for the production of corn, sesame, *plátano macho* (a local banana variety), vegetables, fruits for export (as mango) and pastures is now common in Chiapas (Fletes, 2011). Also, palms have appeared on protected areas land. For example, palms have appeared on a 7,000 hectare section of the Selva Lacandona (in Southeast Chiapas), an ecosystem reserve that should have been off limits to any commercial culture and on Encrucijada (Soconusco), a biosphere reserve. Additionally, the fact that surrounding parcels are also planted diminishes the diversity of the ecosystem and makes it more vulnerable to decay and pests (Fletes et al., 2010) (see Figure 3).

Second, and as mentioned above, farmers experienced economic difficulties during the three years needed to generate the first crop. Earlier, the state provided monetary payments for the productive reconversion. As this programme ended and economic problems became more difficult to handle, farmers began to plant food crops along with palm trees, compromising the efficiency of both types of cultures.[11]

Third, because more land is devoted to industrial crops, fewer food crops are sent to local markets and less food is available for self-consumption. According to

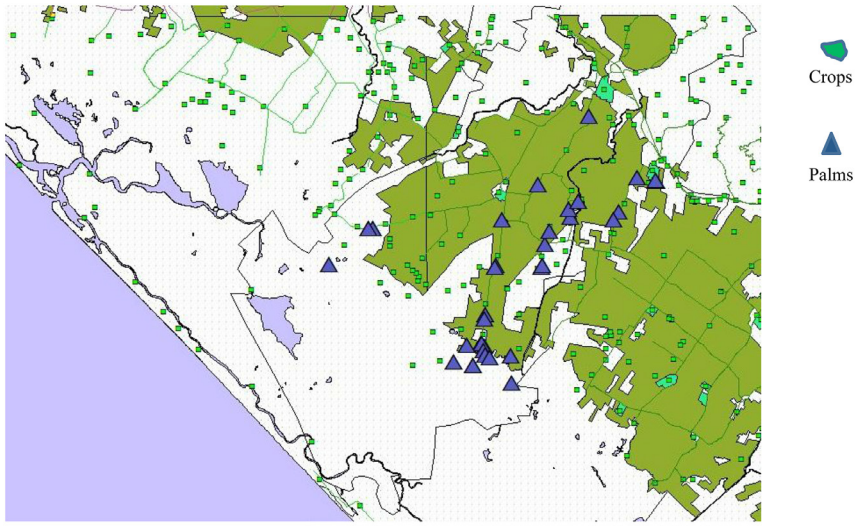

Figure 3. Palm plantations on basic crop and fruit areas in the ecosystem reserve Encrucijada.
Source: authors' GPS map.

estimates from a local survey (Fletes, 2010), about 20% of local food production was replaced by palms. Additionally, interviews with local farmers tell stories of substitution of palm production for food crops. One farmer states: 'I plant only palms… I do not believe that planting other crops is efficient… I used to produce rice, corn and bananas in great quantities but now I produce only palms.' Another farmer says: 'I had cattle but also mango and corn. But now it's all palms.' In a context in which the availability of food crops is already insufficient, the growth of palm production has been accompanied by food imports from national and international markets. Accordingly, food is available increasingly through formal market transactions and is less available to those of limited means. As some farmers were able to increase their cash flow, others suffered the consequences of the formalization of food consumption (see Figure 4).

This is a situation that has affected the level of food sovereignty of local residents. Finally, the instability of the oil market makes producers (particularly the many small farmers in the regions) vulnerable to decreases in price. With virtually no alternatives to the monoculture and limited ability of the state to assist, drops in prices have serious consequences to the local economy and communities (see Figure 5).

Processing Plants and Farmers

Throughout most of the 1990s, the limited presence of processing plants or *extractoras* prevented farmers from increasing the participation in programmes to expand palm production. In Soconusco only two plants were in operation at the time. Given the relatively limited processing capacity and growing supply, farmers could not sell their production and were often forced to leave their crops to rot in the fields. This situation was partially altered in the subsequent years and, by 2012, there were seven processing plants located in the state. This was the result of state plans to facilitate

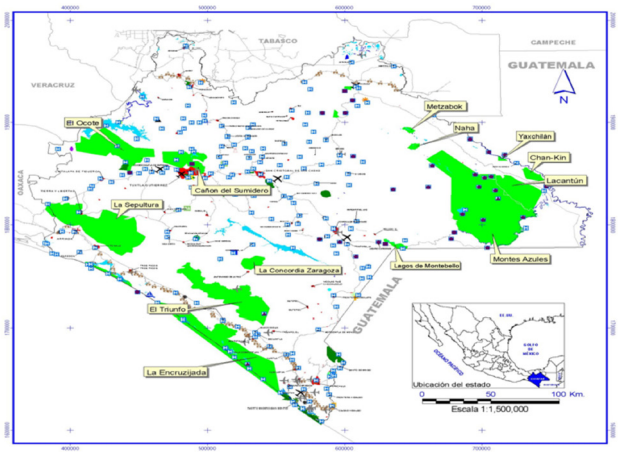

Figure 4. Protected ecological reserves in Chiapas (areas in green).
Source: authors' elaboration on data from Red Ecosur..

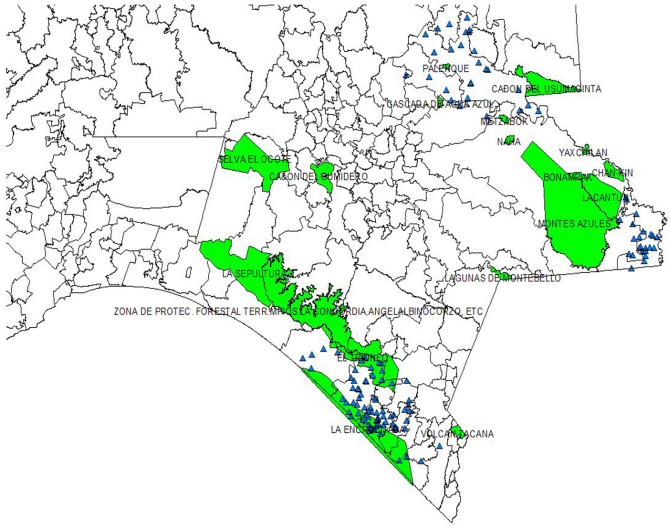

Figure 5. Areas of palm production and ecological reserves in the state of Chiapas.
Source: authors' eleboration on data from CONANP, 2013.

the expansion of the processing capacity in the area and the actions of domestic and international processing companies. This strategy was not only designed to improve production but also to address farmers' concerns and limit the discrepancy between the relatively high fruit production and limited processing capacity. Overall, these changes allowed farmers to contend that, today, the African palm is the best crop in the region in terms of the economic returns it generates.

Local farmers' enthusiasm about the economic side of the implantation of this crop is also associated with the quantity and system of payment. The price of crude oil is set by the international market, which is driven by the world's largest producer, Malaysia. There was an increase in price in 2007 when it reached about USD 750

per metric ton. During the following two years, the price declined but subsequently rose steadily. By 2011, crude oil sold at about USD 1,100 per metric ton. The price paid to producers is set by the *extractora*. It is published at the plant and updated periodically, allowing producers to know exactly how much they would receive for their crop. The local price paid in 2012 was about USD 130 per metric ton. Prices also change according to the delivery destination. Direct delivery of fruits to processing plants commands higher prices than those paid at delivery points – or *recibas*. Distant *recibas* pay lower prices.

Farmers also like the payment system. They receive a check when fruits are delivered to the receiving facility. These checks are highly appreciated as they could be cashed immediately and, given their popularity, circulate as informal currency. Because the fruits can be harvested every 15 days and the price is known in advance, this rapid payment system and its transparency represent a significant departure from existing practices. With other crops, such as fruits, vegetables, and grains, prices are set by a complex system run by intermediaries and are frequently unknown to farmers. Despite the fact that processing plants determine the price to be paid, farmers feel that they have more control of their business in palm production than in the case of other crops.

This rosy view of the growth of African palm cultivation is accompanied, however, by problems for farmers. They view those who manage/own processing plants as actors who have significant power over them. While processing plants need raw material to operate, plant managers' ability to choose among a relatively large number of producers give them asymmetrical power over farmers. In effect, managers of *extractoras* not only do establish actual buying prices, but decide with whom to do business. Farmers that are not liked by managers risk not being able to sell their crops. Moreover, farmers feel that the experience of processing plant leaders and their knowledge of the sector puts them at a disadvantage. This power asymmetry is identified as a source of uncertainty for farmers. Additionally, attempts to establish agreements with *extractoras* through the 2000s resulted in farmers' increased mistrust. As a result, processing plants are viewed as entities that want to take advantage of farmers. Often, farmers have asked for the support of local state officials to address this problem. However, state intervention in this controversy has lacked as mediation between the parties has not materialized, and the local state has not been able to mitigate the mistrust that farmers harbour for *extractoras*.

Farmers' dissatisfaction with the power of *extractoras* has translated into resistance. In particular, farmers decided to draw plans to own an *extractora*. In 1999, a number of small producers joined forces to form an association that included 300 members and about 2,500 hectares of land. In the following years, the difficult relationship between farmers and *extractoras* confirmed the farmers' belief in the benefits of owning a processing plant. Despite these good intensions, a number of obstacles stood on the way, including the lack of financial resources and technical and managerial personnel. The turning point occurred in 2009 when the society was able to recruit a local engineer with background in the sector and work experience in the United States. Under the leadership of this individual and a local producer, the society was able to recruit and train a sufficient number of technicians and workers to staff a plant. Additionally, this association was able to negotiate the use of an older facility that was built in the 1970s and, later, was placed out of production. The negotiation was particularly successful and generated favourable conditions such as free rent. This plant became fully operational in 2009. Aided by available state-sponsored

programmes (such as the Tropico Humedo programme), the growing demand for crude oil, effective management, and support from farmers and the community, this group was able to generate sufficient capital and credit to build a new plant. Construction initiated in 2011, and the new plant was completed in April 2012. Privately owned *extractoras* responded by establishing private support programmes for producers such as programmes for the direct collection of harvested fruits on the field, sale of inputs at discounted prices, and technical assistance. Despite this support, the volume of fruits available to processing plants diminished because of the success of the farmer-owned plant.

Discussion

There are a number of problems that make state intervention in African palm production in Chiapas ineffective and inefficient. At the *economic level*, the cultivation of the African palm did generate the positive result of higher returns for farmers. Despite being exposed to global market price fluctuations, farmers welcomed the system of direct payments and the practice to be paid frequently. Yet and despite state plans, palm production displaced food crops on prime land causing less food to be sent to local markets and available for self-consumption. Because local food consumption became increasingly connected to external food supply chains, farmers and local residents became more and more exposed to food price fluctuations, depended on cash availability for the acquisition of food, and experienced a reduced level of food sovereignty. Ultimately, state intervention rather than diminishing the dependency of local farmers and residents on global markets, increased it. State action was not able to reconcile the expanded economic opportunities for farmers with the overall socio-economic stability and well-being of the local community.

At the level of production of *alternative energy on marginal land*, state intervention created a system that is significantly different from original plans. These plans contemplated the production of alternative, renewable energy on land that could not be employed for food production. Their desirability was justified by claims that they were beneficial to farmers, society and the safeguard of the environment. In reality, African palm oil produced in Chiapas was never employed in the energy sector. It has been exclusively employed as a food additive and industrial input. State plans for alternative energy production never materialized. As in other instances of agrofuel production, the negative environmental impact contradicts its assumed economic benefits. The CO_2 emission of palm oil production is higher than that generated for the production of fossil fuels (Holt-Giménez and Kenfield, 2009; Jonasse, 2009; Castaneda et al., 2011). It has been calculated that the carbon emission for oil production is 10 times larger that the emission generated for the production of fossil oil (Manrique, 2010). Accordingly, state intervention promoted a form of energy that is renewable but not environmentally and economically sound. The claim that the expansion of palm production would be on marginal land also never materialized. The state could not control its growth on prime land and on ecosystem reserves. These negative environmental consequences add to the problems associated with food availability for poor residents of the regions indicated above.

At the *organizational and planning levels*, state plans for cultural reconversion were inefficient. Despite goals to create payment programmes to support farmers' incomes during the reconversion, the state's fiscal crisis prevented the generation of adequate technical and economic assistance to producers. Furthermore, the state

could not control problems between farmers and processing plants. While the state facilitated the construction of a number of plants and supported the strategy to reduce the asymmetric power between *extractoras* and farmers, the control that plant managers and owners exercised over farmers remained strong. Farmers responded by establishing their own processing plant. As the confrontation continued, the state was unable to mediate between the parties.

Conclusions

The research presented in this article speaks directly to the issue of the desirability of state intervention in a context (Mexico) dominated by neo-liberal ideology and practices and in a region, Chiapas, characterized by economic underdevelopment and social unrest. The case of Chiapas' production of the African palm represents an instance of state intervention that had a number of economic and social goals. Economically, it intended to improve the conditions of local producers and produce agrofuel as an alternative source of energy. The protection of the environment and the construction of sustainable forms of energy production were among the key objectives of the state. Similarly important was the state concern with social legitimation. Chiapas has been the theatre of overt strong protest against the Mexican state that gained international support and visibility. State intervention was designed to control resistance and appease the local population. The African palm project was part of a state intervention plan to satisfy certain economic, social, environmental, and political objectives.

The many contradictions that characterized state intervention in Chiapas support the claims of ineffectiveness and inefficiency that fueled the neo-liberal critique of Fordism and its ideological and political clout over the last four decades. Despite explicit plans to promote economic expansion, enhance social stability, create alternative and renewable energy sources, and protect the environment, the results were off target. Following critique from the Left, state intervention maintained its class nature and failed to achieve substantive gains. While farmers' incomes were enhanced, the overall exposure of local farmers and residents to the unwanted consequences of market forces increased. Similarly, food sovereignty decreased as less food was accessible in local markets and its availability was increasingly linked to formal market mechanisms and the corporate actors that control them. State intervention helped subordinate the lives of local residents to global forces and fostered their disembedding from the local context.

These contradictions cast doubts on the desirability of state intervention in a context defined by the crisis of neo-liberal globalization. As neo-liberal globalization seems to have exhausted its legitimacy, the return to state intervention seems equally problematic. The state, in its national and local forms, seems ill-equipped to face economic, environmental, and developmental challenges in a context in which social relations are increasingly shaped by distant actors and processes. While the importance of state action cannot and should not be diminished, evidence from this case suggests that alternative options should be considered and eventually promoted if democratic forms of development and socio-economic growth are sought. In particular, the case study reveals the significance of local initiatives that are fueled by the aspirations and abilities of local residents. Two instances should be recalled in this respect: the establishment of a farmer-owned processing plant and the manner in which farmers handled the transition from food crops to the palm monoculture.

The establishment of a farmer-owned processing plant is an example of the ability of local farmers and residents to mobilize available resources, create new and effective forms of organization, and propose locally generated plans for socio-economic development. The additional benefits of this empowering initiative are many and include the generation of added value that is kept in area, the harmonization of key facets of the production process, farmers' control of the production process, the reduction of differences in power between farmers and the processing industry, and the strengthening of local social bonds and solidarity. The manner in which farmers handled the transition to the palm monoculture is telling of the ability of local residents to generate solutions to emerging problems. Simultaneously, it is also an indication of the limits that local initiatives may encounter in the absence of autonomous institutions of coordination and planning. This is particularly the case in a context characterized by strong centralized state action. While it was relevant for farmers to continue food production on land devoted to palm production, the coexistence of the two cultures was neither productively efficient nor environmentally sustainable. It appears, therefore, that the presence of local institutions that would coordinate these activities and that would allow a more direct participation from all stakeholders could represent a beneficial turn.

Following the indications from the case study and as the debate on the crisis of neo-liberalism and the limits of a possible application of a neo-Fordism model unfolds, attention to the initiatives of local actors and their empowerment, but also to the contradictions and limits that these actions entail, can constitute important elements in the discussion on the creation of better patterns of socio-economic development.

Notes

1. To be sure, this literature does not argue that neo-liberal globalization is no longer dominant. It simply stresses that its various and recent crises have been addressed through proposals involving state intervention.
2. Mexico has been the theatre of the significant introduction of neo-liberal measures. While state intervention in agriculture was not totally dismantled, it was reduced much more than in the US and Canada. These are Mexico's counterparts in NAFTA (see Pechlaner and Otero, 2010). While some programmes and agencies were restructured but remained in place (i.e. the PROCAMPO programme, BANRURAL was renamed and reorganized as Financiera Rural), many others were eliminated. The turning point of this restructuring was the act Ley de Desarrollo Rural Sustentable passed in 2001.
3. Fostering economic growth and legitimizing existing social arrangements were the declared objectives of the Fordist state. In effect under Fordism, the success of any nation state was determined by its ability to promote capital accumulation and, simultaneously, maintain social legitimation (Aglietta, 1979; Carnoy, 1984; Lipietz, 1987, 1992; Antonio and Bonanno, 2000).
4. Despite ideological claims, under neo-liberal globalization corporations actively sought state support. In this regard, the reduction of state intervention refers to the 'social state'. For an elaboration of this issue, see Bonanno and Cavalcanti, 2011.
5. Austerity measures resulted in economic stagnation, high unemployment rates, lack of productive investments, and the deterioration of public services. This neo-liberal action engendered resistance by the general public that protested declining socio-economic well-being and bleak future perspectives. It also created opposition from corporate groups that lamented limited state assistance and the lack of additional corporate freedom (Habermas, 2012; Lapavitsas, 2012).
6. The *eijdo* system adopted a number of ways to distribute land to *campesinos*. It distributed federal land; restituted lend to communities and small towns; expropriated private land and redistributed it to *campesinos* and more. Under the traditional system, *eijdatarios* (*campesinos*) were allowed to use communal land and control the products generated by the cultivation of this land.
7. There is a copious literature on the Zapatista movement and rebellion. See N. Harvey, 1998; Collier, 2008; Ramor, 2011; Morton, 2011.

8. The African palm has an annual yield of nearly 5,000 kilograms of oil per hectare (10 times greater that other oilseeds such as soy), which translates into approximately 6,000 liters of biodiesel (Pineda Morales, 2009; Miccolis and Teixeira de Andrade, 2012).
9. The relationship between the government of Chiapas and the EZLN is complex. While a formal alliance was never signed, this relationship was significantly different from the overt opposition that existed between the EZLN and the federal government.
10. According to the government: 'This failure was due, among other things, to the fact that producers depended on credit for their operations. This credit was partial and inadequate. There were errors in the processing phase which affected the ability to create efficient processing plants. Finally, there were problems with the crop management strategies that were not clearly established' (Velasco, 2010, p. 92).
11. Farmers indicate that the shade created by grown palms limits the growth of other crops. Additionally, they also reported that practices for the cultivation of the palm are often incompatible with the needs of other crops.

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