



Peasant micropower in an agrifood supply system of the Sierra Madre of Chiapas, Mexico

Tlacaelel Rivera-Núñez^{a,*}, Erin I.J. Estrada-Lugo^a, Luis García-Barrios^b, Elena Lazos^c,
María Amalia Gracia^d, Mariana Benítez^{e,f}, Natsuko Rivera-Yoshida^e, Rodrigo García-Herrera^e

^a Departamento de Agricultura, Sociedad y Ambiente, El Colegio de la Frontera Sur, Unidad San Cristóbal, Carretera Panamericana y Periférico Sur S/n, Col. María Auxiliadora, San Cristóbal de las Casas, Chiapas, C.P., 29290, México

^b Dirección Regional Sureste, Consejo Nacional de Ciencia y Tecnología, Carretera Panamericana y Periférico Sur S/n, Col. María Auxiliadora, San Cristóbal de las Casas, Chiapas, C.P., 29290, México

^c Instituto de Investigaciones Sociales, Universidad Nacional Autónoma de México, Circuito, Mario de La Cueva S/n, Ciudad Universitaria, CDMX, C.P., 04510, México

^d Departamento de Sociedad y Cultura, El Colegio de la Frontera Sur, Unidad Chetumal, Av. Centenario Km 5.5, Chetumal, Quintana Roo, C.P., 77014, México

^e Laboratorio Nacional de Ciencias de la Sostenibilidad, Universidad Nacional Autónoma de México, Circuito Exterior S/n Anexo Al Jardín Botánico Exterior, Ciudad Universitaria, CDMX, C.P., 04510, México

^f Centro de Ciencias de la Complejidad, Universidad Nacional Autónoma de México, Circuito Centro Cultural S/n, Ciudad Universitaria, CDMX, C.P., 04510, México

ARTICLE INFO

Keywords:

Peasant micropower
Agrifood supply systems
Social reproduction
Domestic groups
Mexico

ABSTRACT

In recent years, rural studies have transitioned from analyzing internal agrarian dynamics within peasant societies to exploring contractual relationships in a vertical manner between agribusiness and peasants with respect to food production and marketing. The present study follows the tradition of classical agrarian research in order to develop an ascendant Foucauldian analysis that is both genealogical (historical) and critical (addressing current effects) of peasant micropower that domestic groups reproduce in their local agrifood supply system in six *ejidos* of the Sierra Madre region of Chiapas, Mexico. This study used a mixed methodology consisting of a regional ethnography, surveys regarding the peasant economy with 120 domestic groups, interviews with founders of the rural communities and directors of local peasant organizations, factorial statistical and cluster analyses, and visualization of social networks. As a result of the study, we (a) elucidate sociohistorical conditions that have resulted in differentiation among different types of peasants within the micro-region, (b) analyze contemporary social dynamics that have led to polarization between two principal sets of domestic groups based on their means of production, and (c) show how the fact that the majority of domestic groups of the micro-region experience seasonal food scarcity and lack formal employment has led to low rural wages and monopolization of the internal agrifood supply system by those peasants who have greater means of production. We conclude by reflecting on peasant micropower as a phenomenon that can be found in social relations of many agrarian regions around the world, in which the challenge would be to understand its processes of reproduction, analyze effects of this micropower, and propose alternative academic approaches that may contribute to generating public policy and political action to counteract rural inequality.

1. Introduction

Since the 1980s some of the main streams of thought within rural studies, which were strongly influenced by the emergence of the concept of "agrifood regime" (Friedmann, 1987; Friedmann and McMichael, 1989), transited from "horizontal" analyses of the social structure and inequalities within the peasant sectors to "vertical" readings of the

contractual relations that began to sharpen agribusiness towards the peasant sectors (Janvry, 1983; Goodman and Watts, 1997). Such contractual relations are mainly the result of international free trade agreements that disrupt national regulation policies and exacerbate the globalization of food production, distribution and consumption (Raynolds et al., 2007). Within this period, classic analytical categories within the discipline shifted the focus on agrarian structure, means of

* Corresponding author.

E-mail addresses: tarivera@ecosur.edu.mx (T. Rivera-Núñez), eijelsaticilef@gmail.com (E.I.J. Estrada-Lugo), luis.garciabarrios@gmail.com (L. García-Barrios), lazos@unam.mx (E. Lazos), mgracia@ecosur.edu.mx (M.A. Gracia), marianabk@gmail.com (M. Benítez), n.riverayoshida@gmail.com (N. Rivera-Yoshida), rgarcia@iecolgia.unam.mx (R. García-Herrera).

<https://doi.org/10.1016/j.jrurstud.2020.06.027>

Received 8 October 2019; Received in revised form 20 May 2020; Accepted 5 June 2020

Available online 22 June 2020

0743-0167/© 2020 Elsevier Ltd. All rights reserved.

production, labor force and social reproduction (Borras, 2009; Bernstein, 2010) to the analyses of value chains, food dumping, rural financing, biotechnology and changes in peasant diets (Lewontin and Berlan, 1986; Buttel, 1990; McMichael, 2009; Otero et al., 2018). Consequently, interpretations of power in rural studies also experienced a shift from a focus on internal power structures and mechanisms (e.g., *cacicazgos*¹) and their relations with the state (e.g., clientelism, intermediation and factionalisms) (Wolf, 1956; Powell, 1970; Alavi, 1973; Bartra, 1972; Paré, 1975), towards the hegemonic power relations established by the agrifood empires and the contested power of the international peasant social movements (Borras et al., 2008; Desmarais, 2008; van der Ploeg, 2009; Rosset and Martínez-Torres, 2012; Scoones et al., 2018).

The aim of this study is precisely to take up from classic rural studies the forms in which power is present in peasant societies and how it is deployed within agrarian regions. We use Foucault (1978) work on "microphysics of power" and his idea of understanding power in its most local forms and informal institutions, to carry out a genealogical and critical analysis of conformation history and every-day expressions and effects of peasant power within the agrifood supply system of six *ejidos*² of the *Cuenca Alta del Río El Tablón* (CART). This peasant micro-region, located in the Sierra Madre of Chiapas, Mexico, possesses a 70 year-old very dynamic and disputed agricultural environmental history between local and external actors who establish both alliances and tensions in the way they appropriate natural resources, as well as over the benefits derived from such management (García-Barríos et al., 2020). As research objectives, we pose to: (a) reconstruct the historical development of peasant micropower within the *ejidos* and (b) analyze those social processes through which such power is currently exercised and legitimated in the micro-region's agrifood supply system.

The results of the study cover three main topics.³ First, we document ways in which peasants of the CART displaced relationships of subordination that they experienced on *fincas* onto the *ejidos*, resulting in land rights and decision making systems which differentiate peasants based on their former position within the *fincas*; whether they are mestizo or indigenous; and when they moved to the micro-region. Second, we analyze the accentuation of the initial differentiation among peasants within the *ejidos* based on two factors: a) the extent to which domestic groups (DGs) received greater government subsidies for commercial maize cultivation, livestock raising, and agroforestry, and b) the extent to which they have successfully migrated to work in the United States. These historic processes have resulted in two polarized sets of DGs: those that have accumulated significant means of production (*ganaderos* –literally ranchers) and those with limited means of production (*ganadarios* –literally daily wage earners). Third, we describe how the majority of the *ganadario* DGs face marked seasonal food scarcity and lack opportunities for employment; these social vulnerabilities are taken advantage of by the *ganadero* DGs in order to exercise peasant micropower by paying low wages and controlling the agrifood supply system.

In the second section, we develop a theoretical account of the concepts of rural social structure and peasant class dynamics, in order to

¹ This term was borrowed in Spanish from the Arawak-Caribbean word "*kassequa*", which refers to local indigenous chiefs, and has since been used in Spain and Latin America to mean "those who rule" or regional rural strong men (Joseph, 1985).

² Mexico's 1915 Agrarian Law established *ejidos* as collectively owned land that could not be sold or subdivided, until – as a condition of the North American Free Trade Agreement (NAFTA) - a 1992 reform incorporated *ejidos* into the land market, reversing their inalienable nature. The *ejido*'s structure consists of: the assembly (space for collective decision making or direct democracy), the *ejido* "commissary" (executive body consisting of a president, secretary, and treasurer), and the vigilance council.

³ In this research we do not explicitly work on the implications of gender (Agarwal, 1997) and generational relations (Durstun, 1998) in the conformation, reproduction and effects of peasant micropower. It would be important for future studies to focus on these aspects.

revisit these topics and approach the microphysics of peasant power in agrifood research frameworks. The third and fourth sections describe the study's mixed methodology and further discuss the results outlined in the introduction. In the fifth and final section, we first discuss how microphysics of peasant power is manifested and legitimated in the study micro-region. We then reflect on peasant micropower as a phenomenon that can be found in social relations of many agrarian regions around the world. In this manner, we contribute to further understanding the dynamics of reproduction of peasant micropower in order to be able to analyze its effects and pose alternative academic approaches that may contribute to generating public policy and political action to counteract rural inequality. Finally, we highlight the need for rural studies to avoid essentializations toward the peasantry in order to achieve a critical understanding of inequality and oppression within peasant societies brought about by changes that they are experiencing worldwide.

2. Theory

2.1. Rural social structure and class dynamics within peasant societies

The earliest academic studies regarding the peasantry in different regions of the world pointed out the existence of hierarchical structuring within agrarian societies (Kovalevsky, 1891; Lenin, 1899; Kaustky, 1899; Galpin, 1915; Chayanov, 1924). Nevertheless, not until Boguslaw Galeski (1974) presented the "rural social structure" analytical framework in relation to rural Polish societies did scholars begin to pay attention to basic social forces that govern relationships of production within peasant societies, as well as the resulting distribution of –and struggle for– power. Galeski contributed to the origins of Rural Peasant Sociology by posing the following six processes as central propositions of the concept of rural social structure: (i) means of production are a dominant factor in social reproduction within peasant societies; (ii) accumulation of means of production by some members of society leads to exclusion of others; (iii) such differentiated accumulation in means of production tends to result in polarization among peasants based on their social positions; (iv) those peasants who have been marginalized wish to improve their social status; (v) conflicts are generated as marginalized peasants seek social transformation; and (vi) peasant movements and organizations are developed in an attempt to counteract social polarization (Galeski, 1977). According to Galeski, stratification of the "peasant pre-class" is a result of a gradual process of original accumulation that disrupts homogeneity and cohesion among peasants, leading to a continual dispute for power within the peasantry (Sevilla-Guzmán, 2006).

Following Galeski's studies, the Agrarian Change School of thought began to apply the Marxist concept of class dynamics to peasant societies in order to address factors involved in social differentiation within these societies⁴ (Shanin, 1971; Bernstein, 1979). Key processes involved in class dynamics as applied to the peasantry are commodification of subsistence, dispossession of means of production, and marginalization vs. accumulation of wealth within rural communities (Bernstein, 2010). Commodification of subsistence refers to the process through which means of production and social reproduction (including land, labor, and

⁴ Peasant Studies discuss the following three approaches to understanding internal peasant differentiation: (i) the modernization approach poses that integration of peasants into the market, technological advances, and migratory processes are motors of social differentiation within peasant territories; (ii) the Marxist-Leninist approach holds that a struggle for control of land as well as division of labor within agrarian societies is a result of penetration of Capital into peasant classes, which, in turn, tends to lead to development of two antagonistic sectors: agrarian capitalists and rural proletarians; and (iii) the Chayanovian approach argues that differentiation depends on the current stage of domestic groups' development cycle (expansion, dispersal, replacement) as well as their balances of labor-consumption and heavy labor-utility (Borras, 2009; van der Ploeg, 2018).

food) are transformed from use values into merchandise. Such commodification unleashes a process of dispossession of some peasants by others that initiates with privatization of land as an expression of original accumulation and gradually penetrates other means of production and social reproduction, leading to division among poor, middle-status, and wealthy peasants. This results in a clear distinction between those peasants who have been able to accumulate means of production and generate wealth and those who are barely able to subsist, living under a “simple reproduction squeeze” (Ellis, 1993; Bernstein, 2010).

2.2. Toward a microphysics of power in peasant agrifood supply systems

Within agrifood research framework, the concepts of “agrifood regime”, “agrifood system” and “agrifood supply system” have been developed as categories with particular analytical scopes. The concept of agrifood regime operates from the perspective of Political Economy and World-system Theory to study the history and geopolitics of domination of agrarian dynamics and the production, distribution and consumption of food by large agroindustrial corporations, as well as the role that agriculture plays in consolidation of nation-states (Friedmann, 2000; McMichael, 2009). From a systemic approach applied to agricultural and socioecological research, the notion of agrifood system focuses on metabolic analyses of production, processing, distribution, marketing and food intake at broad geographical scales, in which it elucidates aspects such as machinery, inputs, financing, genetic resources, supply and value chains and marketing logic, among others (Burch and Lawrence, 2005). In these two categories, peasant sectors are analyzed from an evident contractual and subordinate relationship with respect to agribusiness and food empires (van der Ploeg, 2009), which inherently tends to make invisible readings of power relations that take place within peasant systems of food production and consumption (Sevilla-Guzmán, 2006; Levkoe et al., 2018; Soper, 2020).

On the other hand, the concept of agrifood supply system has been developed by anthropological research to deepen the sociocultural and territorial dimensions of the practices –the correspondence between agriculture as a productive activity ‘agri’ and rurality as a way of life ‘culture’– through which a given peasant society supplies its food (Pottier, 1999; Pretty, 2002; Cernea and Kassam, 2006; Thompson and Scoones, 2009; Lazos, 2017). We consider that when starting from cultural matrixes that articulate agrifood supply in a given territory, it becomes much closer to analyze asymmetric power relations (by precedence, gender, generation, political intermediaries, ideological control) that take place within peasant societies in the act of producing, distributing and consuming their food.

In addition to the already described analytical frameworks of rural social structure and peasant class dynamics, we propose that “micro-physical” or “molecular” approaches can also be used to analyze power relations within peasant agrifood supply systems. Foucault (1978) and Deleuze and Guattari (1988) use these notions to propose that there are not social zones without power and that in the most elementary social interstices is where precisely take place –beyond the law and formal institutions– the techniques, instruments and discourses through which subjects are configured and individuals intervene materially in the local scale on others. In this sense, Foucault poses the following five attributes that allow us to differentiate microphysics from the classic vertical understandings of power: (i) Location, power is not only located above (in the State or the market) but also in all social grids; (ii) Subordination, power is infrastructure as well as superstructure; (iii) Property, power is a strategy rather than something possessed, therefore, it is exercised; (iv) Legality, power is not only legal but also depends on a variety of social norms which provide mechanisms of legitimation; and (v) Purpose, power is not only repressive, but may also be constructive (Foucault, 1980; Collier, 2009; Lynch, 2014).

In operational terms, the following analytical categories can be drawn from the microphysics of power: (a) General micropower policy, each

historically and spatially determined social grouping generates its regime of truth, within which the discourses and practices that seek to subject the subjectivity of some individuals to others make sense within the grouping; (b) Micropower relations, power is exercised on asymmetries between subjects through the interaction of dual forces; (c) Micropower reproduction devices, sets of subjectivities, techniques, procedures, charges, alliances and sanctions that allow the full exercise of power; and (d) Micropower effects, subject configuration and resulting material expressions (Foucault, 1978). In order to sustain these categories, it is essential to know both historical development (genealogical analysis) and present dynamics (critical analysis) of the societies studied. Thus, analyzing the formation and reproduction of micropower in peasant agrifood supply systems can allow us to initially elucidate the inequalities that take place within the agrarian regions themselves or “from below” (Nuijten, 2003; Tria Kerkvliet, 2009) to eventually understand in a more objective and concise manner the vertical and contractual powers that are exercised “from outside” which are certainly interwoven with local micropower and in many cases function on the basis of these.

3. Materials and methods

3.1. Study area

The CART is a mountainous neotropical area of approximately 24,000 ha in the northwest of the Sierra Madre de Chiapas, in south-eastern Mexico (Fig. 1). It has an abrupt climatic gradient with altitudes ranging from 800 to 2550 masl, an extensive hydrological network, and six types of forest that host a great biodiversity (García-Barríos and González-Espinosa, 2017). The CART has had a dynamic socio-environmental history, and in the past 70 years has undergone a dispute among multiple actors (Fig. 2), resulting in the transition from private ownership of *fincas* used for forestry and livestock to communal peasant ownership of *ejidos* (Cruz-Morales, 2014). The CART was a significant center of maize production during Mexico’s agricultural boom in the 1970s and 80s and was also affected by the agrifood collapse of the 90s as a result of NAFTA (Appendini, 2014). Also, in the 1990s, government policy promoted livestock raising with the help of small bank loans (Valdivieso-Pérez et al., 2012), and the region was decreed as the federal La Sepultura Biosphere Reserve (REBISE). In 2004, the CART joined the UNESCO’s Man and the Biosphere Programme. Since then, many Mexican and international NGOs tried to promote “green economy” agroforestry projects in the watershed (Adams, 2017) involving cultivation of shade coffee, extraction of *Pinus oocarpa* resin for use in household cleaners, and harvest of the *Chamaedorea quezalteca* palm for ornamental purposes (Speelman et al., 2014; Valencia et al., 2014; Braasch et al., 2017).

The CART is currently the most populated area of the buffer zone of the REBISE, with approximately 6000 inhabitants of four generations (García-Barríos et al., 2020) which make up approximately 1500 DGs living in 12 *ejidos*. The DG is the basic unit of social reproduction.⁵ Most DGs cultivate maize and beans for family consumption, along with livestock raising on a small to moderate scale (up to 100 heads of cattle) and/or agroforestry, depending on family structure, the amount of land they have, and other means of production (Zabala et al., 2017). Migration to the United States and welfare-type federal subsidies also provide significant income for the DG, and some DGs belong to one or more peasant organizations (García-Barríos et al., 2009).

3.2. Information and data-collecting methods

From January 2017 to May 2019, we carried out both brief and

⁵ For the purposes of this research, we operationalize the domestic group as the set of family members who deploy a joint work strategy to achieve food supply.

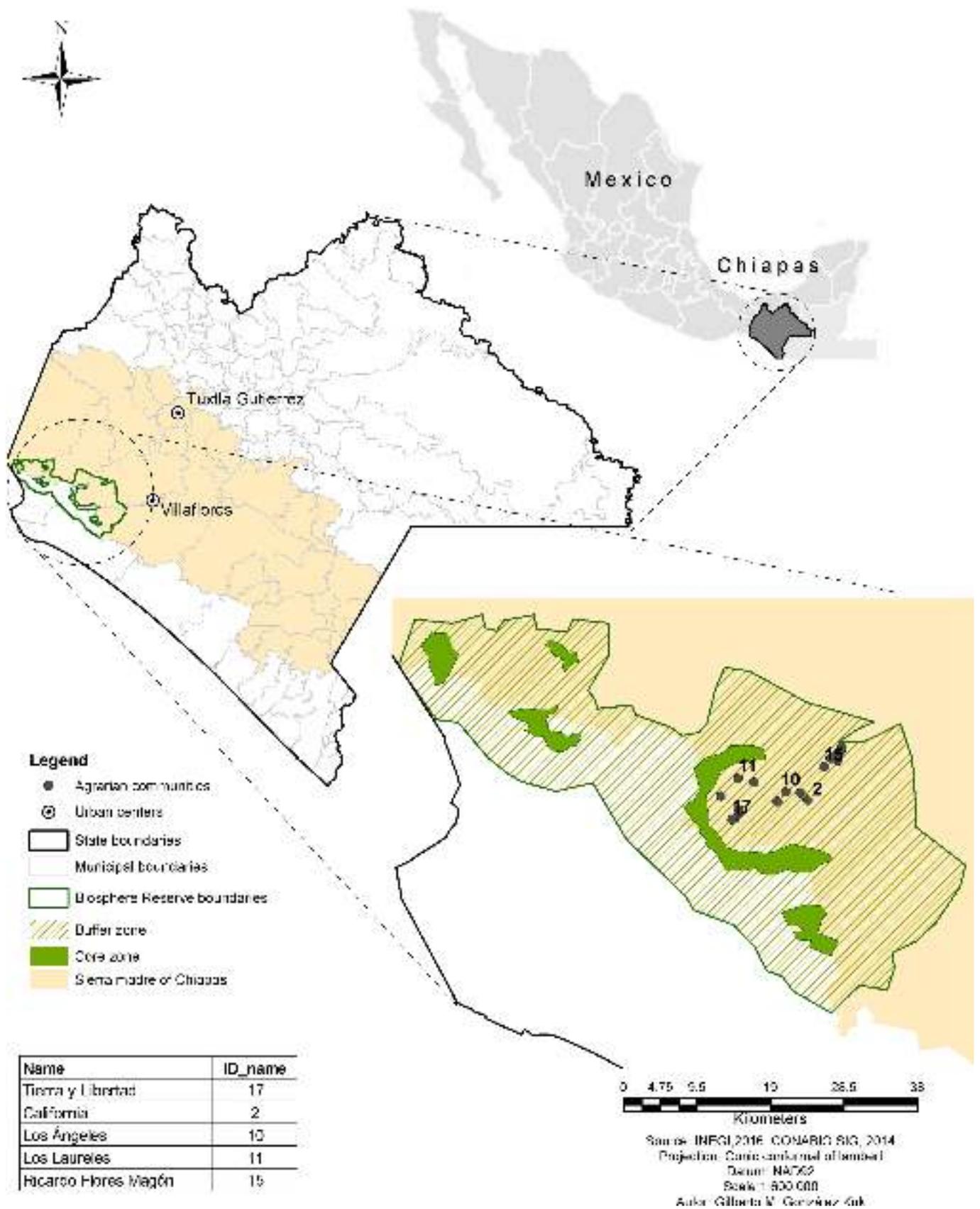


Fig. 1. Location of ejidos of the study in the Cuenca Alta del Río El Tablón buffer zone of La Sepultura Biosphere Reserve, in the Sierra Madre of Chiapas, Mexico.

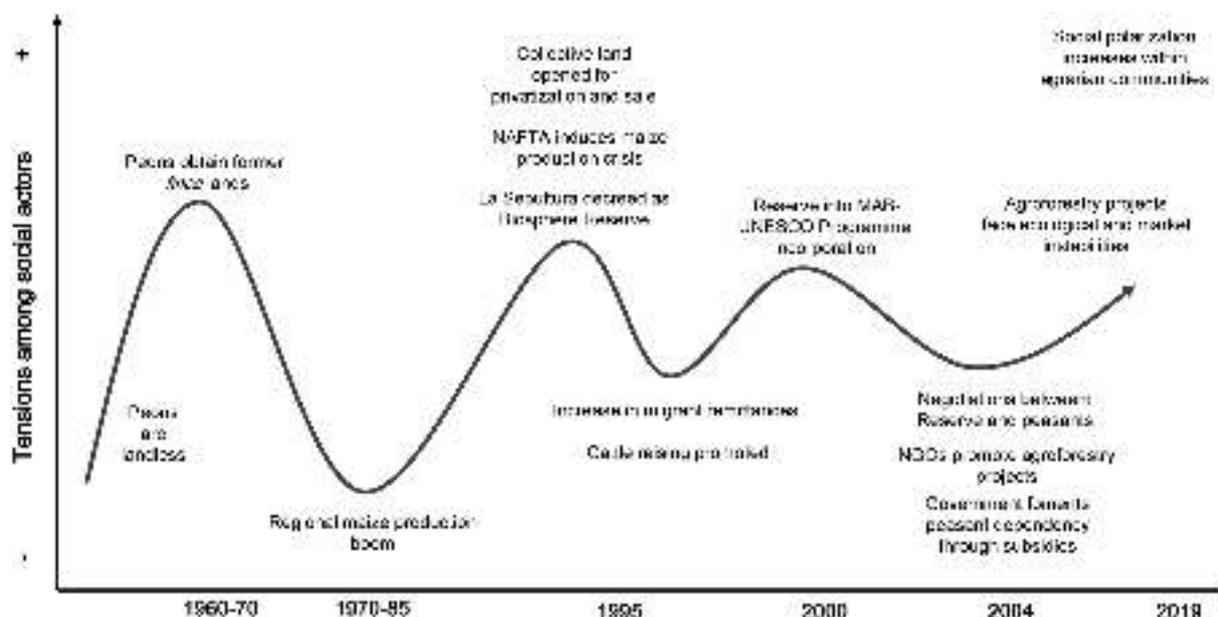


Fig. 2. Stylized graphic representation of the socio-environmental history of territorial dynamics in the *Cuenca Alta del Río El Tablón*. (research: Juana Cruz-Morales; design: Luis García-Barrios).

Table 1

Description of variables in the survey applied to domestic groups, employed to generate an explanatory statistical model of the peasant economy during 2017.

Variable	Description	Type
Type of <i>ejido</i> membership	<i>Ejidatario, poblador, or avocinado</i>	Qualitative
Stage of domestic group development cycle	Expansion, dispersal, or replacement	Qualitative
Number of domestic group members	Total number of members in the domestic group	Quantitative
Agricultural labor force	Domestic groups whose principal occupation is agriculture	Quantitative
Economic activities	Number of economic activities (agricultural and non-agricultural) carried out by the domestic group	Quantitative
Migratory destination	Regional, national, or international	Qualitative
Total workdays worked	Number of days worked by all domestic group members	Quantitative
Total workdays paid	Number of days paid for all economic activities	Quantitative
Total agricultural hectares	Number of hectares used for agriculture	Quantitative
Maize yield	Total maize yield	Quantitative
Bean yield	Total bean yield	Quantitative
Months of food crisis	Number of months the domestic group reported malnutrition	Quantitative
Eating wild foods	Whether or not the domestic group consumed wild foods	Qualitative
Total government assistance	Amount of government assistance the domestic group receives through the programs PROGAN ^a , PROCAMPO ^b , PROSPERA ^c , 65 and over ^d , and PSA ^e	Quantitative
Total income	Total income of the domestic unit	Quantitative
Livestock	Total head of cattle	Quantitative

^a Sustainable Livestock Production and Livestock and Beekeeping Regulation Program.

^b Direct Support for Rural Areas Program.

^c “Social Inclusion” Program for women.

^d Pension for Older Adults Program.

^e Environmental Services Program.

extended ethnographic field visits in six *ejidos* of the CART: three of which are located in the upper watershed and participate in government and NGO sponsored agroforestry projects, and the other three of which are located in the lower watershed and principally grow crops and raise livestock (Fig. 1). The ethnography may be classified as micro-regional and second order, as the researchers submerged themselves systematically in a non-intrusive manner in the social life of the *ejidos* with the specific objective of gathering information regarding the peasant agri-food supply system (Agar, 1996; Bernard, 1995) rather than carrying out a complete ethnography of the culture (Creswell, 1998). We do not based ethnography on pre-elaborated observation guides in order to achieve a point of theoretical saturation, but rather on a “rich point cycle” that seeks to generate connections among fields of significance (Agar, 2004).

We also carried out interviews with presidents of local peasant organizations and *ejido* authorities. All interviews were carried out with

individuals (Berry, 1999) in an open-ended nature focusing on the formation of the *ejidos*, the impact of agroforestry projects on peasants’ livelihoods, and the peasant agri-food supply system. Field diary notes and transcriptions of interviews were submitted to an open, axial, selective manual codification process in order to generate analytical categories and grounded theory based on the data (Strauss and Corbin, 1997; Charmaz, 2006). We documented the subjects’ voices in an *emic* manner in order to generate theory (Morris et al., 1999).

Following the initial stage of ethnographic fieldwork and interviews, we designed a structured survey to be applied to the DGs. This survey contained two sections: the first addressed the DGs’ peasant economy from a Chayanovian approach including the generational approach of

differentiation⁶ through family morphology (Chayanov, 1966) and domestic group development cycles (Fortes, 1971); the second focused on the origin, quantity, seasonality, and cost of supplying different types of food in the micro-region, based on a reticular arrangement question format. Given the logic of peasant social reproduction (Netting, 1993; van der Ploeg, 2014), both sections of the survey referred to the 2017–18 growing season, and were applied in 2018 to a non-probabilistic sample of 120 DG in the six *ejidos*, consisting of 20 DGs each whose principal source of income and subsistence was: coffee, resin, palm, livestock, maize and beans, and agricultural wage labor. We constructed the convenience sample using the snowball method, and the criteria of utility was to cover the greatest possible socioeconomic range among DGs in the micro-region.

From the first section of the survey, we selected 16 variables that we considered the most essential to understanding the peasant economy of the DG (Table 1). Due to the fact that variables included numeric as well as categorical data, we used a Factor Analysis of Mixed Data (FAMD) in the R programming setting and language to generate an explanatory statistical model. FAMD is an algorithm that combines the principal components method and the multiple correspondence method in order to analyze data sets that contain quantitative and qualitative variables, and thereby balance the influence of—and determine the associations among—such variables (Pagès, 2004). Following this, we used the results of the explanatory model generated to develop a K-means cluster analysis in the same programming language in order to define a typology of DGs (Tuttonell et al., 2010; van der Ploeg and Ventura, 2014) that we validated according to concepts that the peasants expressed in the ethnography, or peasant ethos. Finally, we de-aggregated the averages of the variables related to means of production for each cluster, thereby demonstrating a marked social polarization among peasants in the micro-region.

We used data on the food supply system from the second section of the survey to visualize social networks following the hive plot method which allows for generating simple graphic interpretations of the patterns of large networks by assigning nodes to radially distributed linear axes (Krzywinski et al., 2011). The programming language Phyton was used to generate social networks which represent endogenous and exogenous food supply patterns; elucidate routes of food price increase, and—above all—demonstrate the dominance of certain peasant suppliers in agrifood supply systems within the CART.

4. Results

4.1. Origin of the *ejidos* of the CART and their systems of communitarian rights

Within the context of post-revolutionary Mexico, indigenous and mestizo populations of the state of Chiapas benefitted very little from the first (1910–1920s) and second (1930s) waves of farmland distribution (Viqueira Albán, 2000). In the CART, as in other regions of Chiapas, until the 1960s and 70s, the “coffee-corn-cattle *fincas* system” continued to shape rural life (Olivera, 1980). Under a regime of internal colonialism (Stavenhagen, 1963, 1969), peasant families of the CART

provided peon labor for the *fincas* of 22 powerful families of the capital of Chiapas who extensively raised livestock, cultivated sun-grown coffee, and ran sawmills (Cruz-Morales, 2014). We have been informed by the older inhabitants of the micro-region, that this system of labor exploitation included five differentiated positions of subordination similar to those described by Katz (1974) and Rus (1995): boss, trusted peons, renters, seasonal laborers, and indentured servants.⁷

In the 1950s, when peasants initiated a movement to reclaim land in Chiapas, principally mestizo peasant families of the CART began a land struggle that continued until 1980, resulting in a presidential resolution authorizing transformation of close to 80% of the micro-region into *ejidos*. Mestizos from nearby regions of Chiapas as well as other states of southwestern Mexico, along with Tzotzil, Tzeltal, and Zoque indigenous people from the Highlands of Chiapas, came to the CART to populate these new *ejidos*; an estimated 10% of the CART’s population are indigenous (Cruz-Morales, 2014).

Within this conglomeration of settlers with different histories of labor subordination, land struggles, and ethno-cultural roots (one of the so-called “intercultural regions” of refuge in Mexico; Fábregas-Puig, 2010), an internally differentiated system of land under a collective tenure regime and decision-making rights was quickly established in the *ejidos* of the CART. Through the establishment of a system of local social norms outside legal terms of the Agrarian Law,⁸ most of the trusted peons and indentured servants that lived on the *fincas* became *ejidatarios* (“landholders” with voice and vote in the *asamblea ejidal*); mestizos from nearby regions and other states became *pobladores* (“small landholders” with voice but no vote in the *asamblea*); and the indigenous were incorporated into the *ejidos* as *avecindados* (with very little access to land or even “landless”, without voice, nor vote in the *asamblea*). As mentioned by Rus (1995), in Chiapas mestizos considered “Indios” as people identified as poor and used to live as such, therefore it was not necessary to give them the same rights in the conformation of the *ejidos*. In order to subsist, the indigenous DGs depended on the “*mediertas*” (cultivating maize and beans on a wealthier person’s land or raising someone else’s cattle with one’s own labor and resources and later dividing the profits equally). Meanwhile, *ejidatarios* inherited the right to participate with voice and vote in the *asamblea* from their fathers, and *pobladores* could purchase already existing rights for hundreds of thousands of Mexican pesos, although few have done so.

Among *ejidatarios*, differentiation existed between former trusted peons and indentured servants; the trusted peons monopolized considerably larger quantities of land and occupied positions within the *ejido* “*comisariado*”, acting as political intermediaries (Warman, 1976; Bartra, 1972; Esteva, 1980) by influencing the micro-region’s approximately 4000 ballots during elections every three years to determine the representatives of the municipal seat in order to receive government projects and gain political favors (Lomnitz-Adler, 1992; Nuijten, 2003). The following interview with the son of a peasant founder of an *ejido* illustrates how the hierarchical relationships of the *fincas* continued to be

⁷ The boss lived in the “*casa grande*” and - in exchange for managing the hacienda - received a share of the landowner’s earnings. Trusted peons lived near the big house and were responsible for forcing indentured servants and seasonal laborers to work. Renters maintained local economies by producing food in exchange for renting land. Seasonal laborers came from other ranches and indigenous communities to work only during harvests or the “*zafra*”. Indentured servants lived on the edges of the “*fincas*” and were indebted to the “*tiendas de raya*” that supplied basic foods at high prices, such that they were unable to pay their debts during their lifetime.

⁸ It was not until 1992, after the *Artículo 27 Constitucional* reform and its corresponding Agrarian Law, that the property rights of the *ejidos* were made more flexible when a portion of the CART *ejido* lands went from “incomplete individual ostentation” to “complete individual ostentation” based on land parcel certification, or even the sale, lease or mortgage authorized by the *Programa de Certificación de Derechos Ejidales y Titulación de Solares Urbanos* (PROCEDE; Goldring, 1996).

⁶ The generational notions of M. Fortes’ domestic group development cycles and A. Chayanov’s family morphology are closely related to the understanding of peasant social reproduction. For Fortes, the DG is the analogy of the stages of development of an organism and therefore includes the phases of a) expansion, which begins with the union of the couple and lasts until the birth of the last child, b) dispersion or fission, in which the children go out to form their own groups, and c) replacement or substitution, which culminates in the death of the couple and their replacement or substitution by another. Chayanov argues that, in addition to the developmental cycle, the family constitution (morphology) is important, the number and age of the children within a family define the balancing of production-consumption and heavy work-utility (hands that work and mouths to feed).

reproduced after the *ejidos* were founded:

“In [the *ejido*] Los Angeles, over several years [the peasants] were trying to kick the landowner off the ‘*finca*’; they were holding meetings at night organizing to kick out the landowner of what is now California. By then my dad was the trusted peon of the boss. We lived next to the ‘*casa grande*’ – as they called it. Then one night they secretly came from Los Angeles to invite my dad to a meeting, and they tell him that they are going to kick out the landowner with his herd and all and burn the *casa grande*, and well, what side is he on? Is he going to stay [with the peasants] or go ... My dad told him that he was going to stay, but right away he came to tell the boss. The boss, well, didn’t even wait till morning here; he even left the cattle. The next day, those from Los Angeles come to speak with my dad to organize the land and do all the registration of the *ejido*. And him, he got the task of beginning land repartition, like he continued ordering around; they continued to respect him because he had been trusted. We got lots of land and still had the cattle ... in the end the *casa grande* was burned” (Peasant #1, 51 years old).

4.2. Peasant social polarization: *ganaderos* and *ganadarios*

In the 1970s, *fincas* land was repartitioned in Mexico with the objective of containing the social pressure of peasant movements; with this, the government provided agricultural subsidies in order to integrate marginalized rural settlements into Mexico’s politics and economy as providers of cheap agricultural products for nearby cities (Warman, 1980). Two of the main such programs in which the CART participated were *Programa Nacional de Alimentación* (PNA) y *Sistema Alimentario*

Mexicano (SAM), in operation from 1967 to 1983, which in general terms consisted of expanding Mexico’s agricultural frontier to produce basic grains by setting price guarantees and providing subsidies for agrochemicals and hybrid seeds produced by national companies (Spalding, 1985; Appendini, 2001).

Despite the fact that in general, PNA and SAM led to a boom in maize production in part of the Sierra Madre that came to be considered “the grain basket of southern Mexico”, ownership and participation in decision making within the *ejidos* of the CART led to DGs becoming differentiated into two principal sectors: (i) those who intensively cultivated hybrid maize in large areas of the alluvial valleys and highland slopes with the support of government subsidies, and (ii) those who continued small-scale cultivation of maize and beans for family subsistence (Valdivieso-Pérez et al., 2012). During this period, the CART provided considerable quantities of maize to the federal government purchaser *Compañía Nacional de Subsistencias Nacionales* (CONASUPO) at guaranteed prices, and thus certain DGs began to receive large sums of money, with which they socio-economically marginalized the second group.

A few years later, the national economy entered a structural crisis leading to implementation of orthodox structural adjustment policies. Federal government investment in agriculture was reduced by almost half; importation of food, chemical inputs, and machinery was flexibilized through preferential credit with the United States; and Mexico joined NAFTA in an attempt to recover from what was perceived to be economic instability (Barkin, 1987; Johnston, 1987). Termination of CONASUPO in 1990 and implementation of NAFTA in 1994 led commercial maize production to collapse in the CART, which in turn led to two types of readjustment responses by peasant DGs: those *ejidatarios* with greater socioeconomic status received government loans to acquire livestock and equipment to expand livestock raising already practiced in

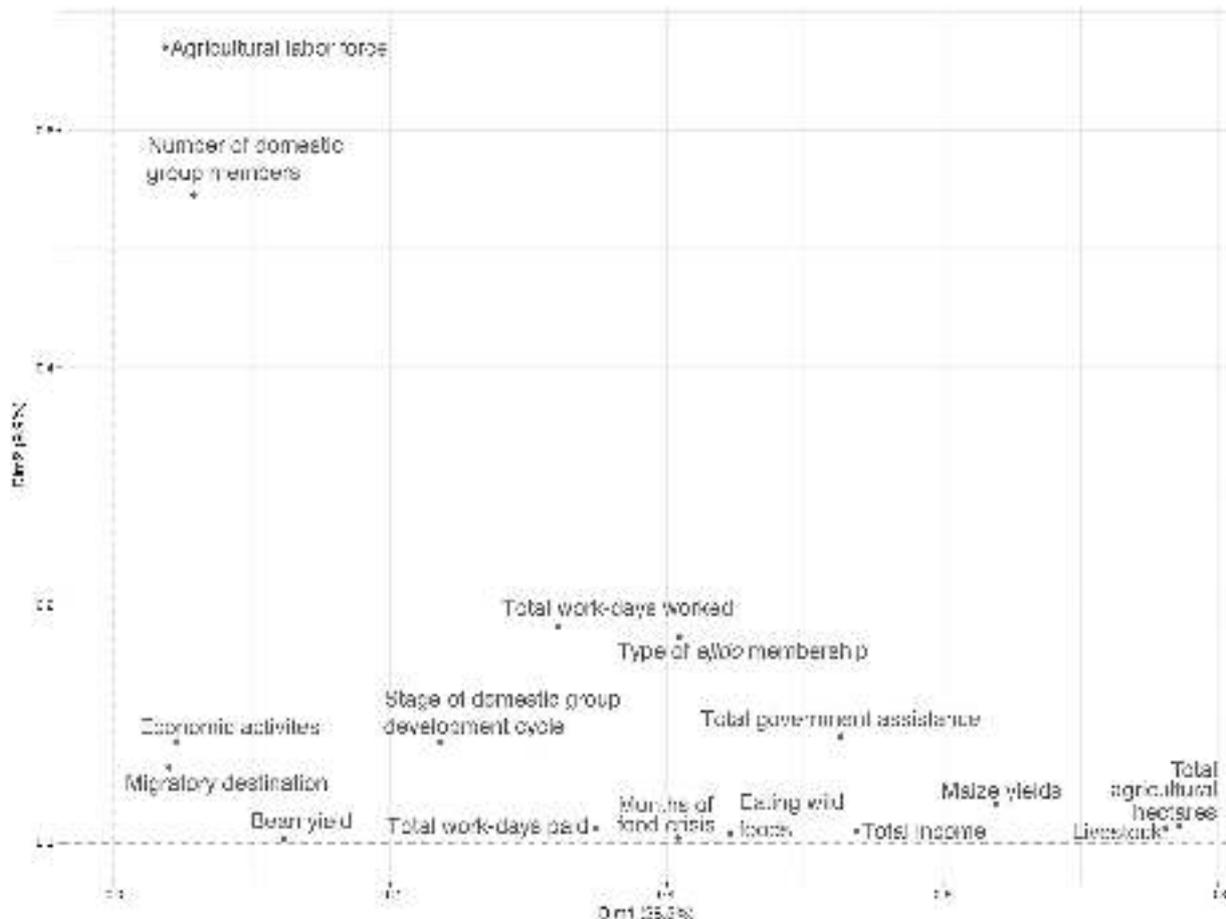


Fig. 3. Statistical model of the peasant economy of domestic groups in the *Cuenca Alta del Río El Tablón*. The arrangement of the variables shows the correlation among them and the contribution of dimension 1 (x axis) and dimension 2 (y axis) to the explained variance of the data set.

the micro-region (Cruz-Morales, 2014), while many *pobladores* and *avecindados* migrated to the United States and northern Mexico to earn money to send to their families (García-Barríos et al., 2009).

Migration had two outcomes for peasant DGs' economy. Some were able to increase their means of production and even purchase *ejido* rights. Meanwhile, other migrants faced repeated deportation, alcoholism, and/or drug addiction, or even formed new families in their places of destination and never returned home. The majority of such situations resulted in debt and even loss of land by their DG, as they were unable to pay the high interest rate loans provided by other rural inhabitants to cover the expenses of undocumented migration.

Starting in 2000, Mexican and international NGOs began to promote agroforestry projects in the CART to produce pine resin and shade coffee, and to sustainably harvest ornamental palms in concordance with the REBISE's conservation policies. This was carried out in a context of marked social polarization within the *ejidos*; influential peasants formed peasant organizations in order to join these projects, promoting participation by those with significant quantities of land. Thus, as had occurred during the period of expansion of maize production and livestock raising, socioeconomic polarization within the CART was further exacerbated; as with other government programs to support agriculture (PROCAMPO), livestock raising (PROGAN), and coffee production (PROCAFE), as well as payment for environmental services (PES), they were contingent on having land titles, *ejido* membership, and/or membership in peasant organizations.

As shown by the statistical model presented in Fig. 3, two sets of variables exist with respect to the economy of the peasant DGs: on the one hand, hectares under production, head of cattle, maize production, income, receiving government subsidies, and having communitarian rights as *ejidatarios* are highly correlated with each other and are those

variables which most contribute to explaining the model; on the other hand, agricultural labor force is correlated with number of members of the DG. Upon shifting the statistical space of the model to a K-means cluster analysis, the 120 DGs are grouped into four clusters: cluster 1 = 4% that have accumulated the highest levels of means of production; cluster 2 = 32% that have an intermediate level of means of production and labor force; cluster 3 = the poorest 43% that have few means of production and little labor force; and cluster 4 = 21% that are equally marginal with respect to means of production but have several members who carry out agricultural labor (Fig. 4).

The K-means cluster analysis shows that the peasant economy in the micro-region is highly vertically stratified, as demonstrated by a Pareto distribution with few thriving DGs and many marginal DGs (social pyramid). Table 2 shows that the DGs of cluster 1 receive three times more government funds than those of clusters 3 and 4, and on average generate ten times more income. It also shows that cluster 1 is made up of DG with 88–198 ha under production, while clusters 3 and 4 include DGs without land that must rent plots to carry out family subsistence agriculture. Meanwhile, 7.5% of DGs of clusters 1 and 2 (15 DGs) possess 66% of the micro-region's cattle, while 63% have no cattle. These two socially polarized groups with respect to means of production are commonly referred to by the peasants as the *ganaderos* (ranchers) and *ganadarios* (daily wage earners):

“Here in the *ejidos* it's very easy to understand how we peasants earn a living and get ahead: we are the '*ganadarios*' and there are the '*ganaderos*' ... the *ganaderos* are those who since they founded the *ejidos* were left with the best land. Some that migrated and were successful got their cattle, have been *ejido* commissaries, presidents of cooperatives ... the thing is they know how to move with the politicians of Villaflores [nearby city of influence] ... now they even

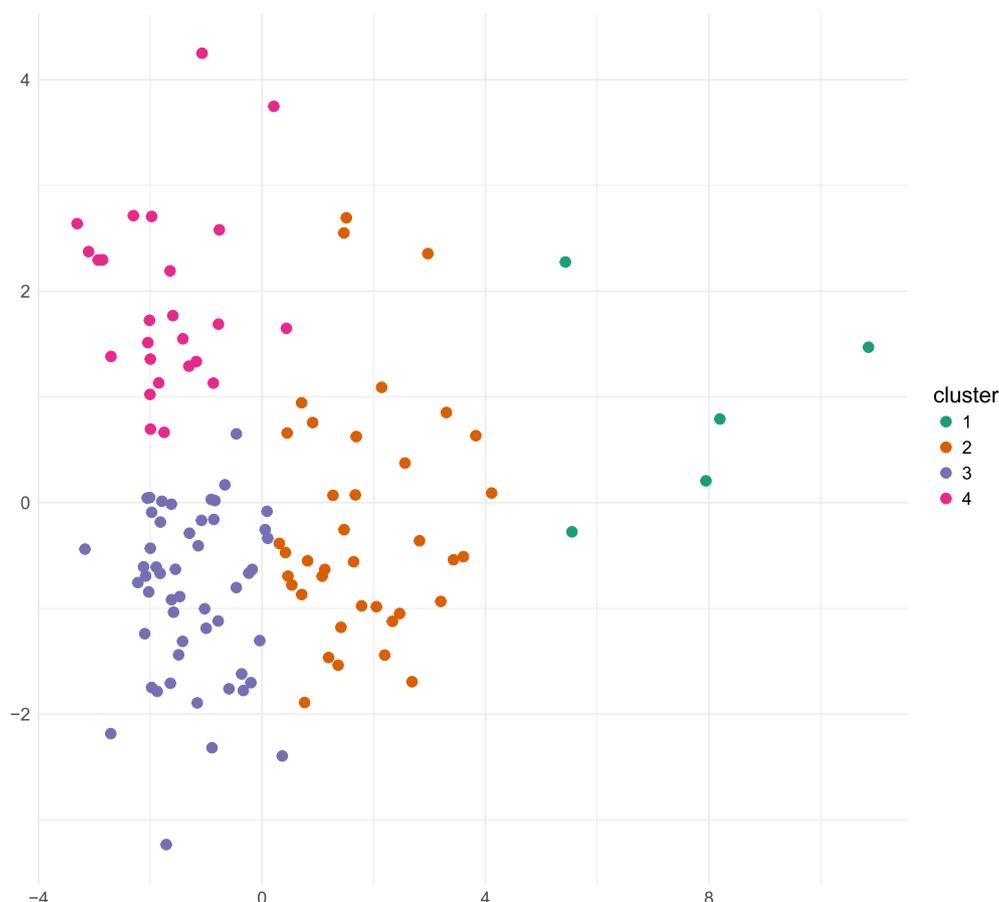


Fig. 4. K-means cluster analysis of domestic groups based on the peasant economy statistical model. Location of the domestic groups overlaps with the arrangement of the variables of Fig. 3.

Table 2

Arithmetic measurements and limit values for the variables that explain the greatest social polarization among clusters defined based on the peasant economy model.

Cluster	Total Agricultural Hectares			Livestock			Annual Government Support (USD)			Annual Income (USD)		
	X	X ₍₁₎	X _(n)	X	X ₍₁₎	X _(n)	X	X ₍₁₎	X _(n)	X	X ₍₁₎	X _(n)
1	122	88	198	54	30	80	2,350	1,687	3,171	14,168	8,593	22,045
2	31	2	82	13	0	40	1,070	0	2,200	3939	1,381	10,588
3	4	0	19	0.3	0	5	562	0	1,586	1,279	0	5,370
4	4	1	22	0.4	0	10	665	0	1,944	1,125	0	4,399

have their businesses. And well, the *ganadarios* are all the rest of us, the poorest, those that plant our corn and beans for the family's food, and we have to work for someone else to get cash. We go from day to day as they say; that's why we say *ganadarios*" (Peasant #2, 48 years old).

4.3. Social vulnerability, source-sink rural wage dynamics, and centralized agrifood supply networks

With the passing of the years, peasant inequality between *ganaderos* and *ganadarios* has led to three large sets of DGs with respect to their social reproduction: (i) those that easily fulfill their needs –or complete their annual social reproductive cycles– and are increasing their means of production and savings (principally cluster 1, and some members of cluster 2); (ii) those that barely manage to complete their social reproductive cycles with their own means of production and labor (principally cluster 2); and (iii) those that are unable to complete their social reproductive cycles with their own means of production and must seek paid work and depend on government welfare-type programs to barely survive (cluster 3 and 4). This third group –the large majority of *ganadario* DGs– is characterized by two types of social vulnerability particularly relevant to the present study: lack of opportunities for regular paid work, and seasonal food scarcity.

In the study micro-region and in the surrounding rural area, opportunities for steady paid work are lacking for peasants.⁹ In order to find a steady job, they must migrate to nearby cities to work in small industries or other businesses; tourist areas to work in construction; northern Mexico as field workers for agribusiness; or the United States as undocumented labor. The lack of steady employment in the micro-region and the difficulties of migrating have been taken advantage of by those DGs with sufficient means of production to employ workers at very low wages. In the CART, a rural workday corresponds to 8-h planting or attending crops, livestock, and/or agroforestry is paid \$100 MXN (4.97 USD) without meals, while in other peasant regions of Mexico a 6-h workday is paid \$250–300 MXN (12.5–15 USD), including a meal.

According to our analysis of the CART peasant economy, among the 120 DGs studied, a total of 12,711 rural workdays were generated in 2017,8265 of these by only ten DGs, each of whom have over 60 ha under production with over 30 head of cattle and/or produce over 20 tons of maize per year, and therefore require the labor of other DG. We term this transfer of agricultural labor by a critical mass to a small group of DGs “source-sink of rural labor”¹⁰ in which the following tension occurs: to a large extent, the source DG accumulate means of production

⁹ Existing contractual jobs consist of federal government positions in the natural protected area, hospitals and clinics, and schools, all of which are occupied by workers from outside the micro-region. Meanwhile, opportunities for steady work in small businesses in the micro-region – such as general stores, tortilla shops, and mechanics shops – are occupied by members of the *ganadero* families.

¹⁰ This is an analogy to the model employed in ecological meta-population theory to explain how organisms occupy two subtypes of habitat. The “source” habitat is of high quality and its population is able to thrive, while the “sink” habitat is of very low quality, and its population is unable to thrive using only resources from this habitat, and therefore strongly depends on resources of the source habitat.

and generate wealth by exploiting the labor force of the sink DGs, and the jobs generated by the source DGs have allowed the micro-region to avoid completely becoming a landscape of migratory remittances and government subsidies, as is occurring in vast peasant regions of Mexico. For example, at least one member of 56% of the 120 DGs surveyed has migrated at some time, but only 9% have a family member who is currently a migrant.

Such lack of means of production, lack of local work opportunities, and dependence on government food subsidies have led the majority of *ganadario* DGs to experience food scarcity (Mazoyer, 2001). As reported in studies addressing “the hungry farmer paradox” (Bacon et al., 2014) and “lean months” (Morris et al., 2013), 74% of the DGs interviewed in the present study state that they experience marked seasonal food scarcity, while 36% of these report such conditions at least six months per year (Fig. 5). These DGs perceive malnutrition as complete lack of maize and beans (the basic crops of the Mexican peasant diet) or considerably lowering habitual consumption during part of the year, while lacking cash to purchase basic foods. The most generalized time window of malnutrition in the CART is May to November, which is the period from planting to the start of the harvest (December to April).

Similarly, the dietary vulnerability of the *ganadario* DGs has been taken advantage of by *ganadero* DGs to generate wealth by monopolizing the micro-region's food commerce. In the CART, we identified six strategies that the DGs use for food supply: (i) planting maize and beans for family subsistence, (ii) retail purchase of non-perishable foods in community DICONSA stores,¹¹ (iii) retail purchase of non-perishable foods in local general stores, (iv) wholesale purchase of non-perishable foods in the nearby city, (v) retail purchase of perishable foods (fruits, vegetables, and animal products) sold door to door by suppliers from within the micro-region, and (vi) retail purchase of perishable foods sold door to door by suppliers from outside the region. Depending on the economic condition of DGs, they employ a range of such food supply strategies on a regular basis. In the few cases where the production of maize and beans for the year is extremely insufficient or for the very few DGs that do not produce their basic grains, they are also available for internal purchase at varying prices depending on the season (from \$3 to 8 MXN per Kg in the case of maize, and from \$10 to 20 MXN per Kg in the case of beans). In this internal sale of maize and beans, the surplus crops are hoarded by some *ganadero* DGs –commonly named “coyotes” in rural Mexico. We documented also that some *ganadero* DGs buy out the food supply of the communitarian DICONSA stores at low prices to force *ganadario* DGs to purchase them at higher prices in their general stores. This is due to a lack of government regulation, and the fact that very few *ganadario* DGs are capable of purchasing wholesale in the city due to lack of cash and transportation costs, resulting in a kind of “micro-regional peasant dumping”.

The most emblematic case that we documented in the micro-region regarding unequal exercise of power within the local food supply is the peasant beef supply network, in which a single extended family of *ganaderos* supplies 71% of all beef purchased by the 120 DGs surveyed.

¹¹ Arising in 1999 to substitute the before-mentioned CONASUPO, DICONSA is a national network administrated by the federal government that establishes communitarian stores through agreements with inhabitants of rural zones in an effort to guarantee highly marginalized populations economic access to 23 basic food products and other domestic items.

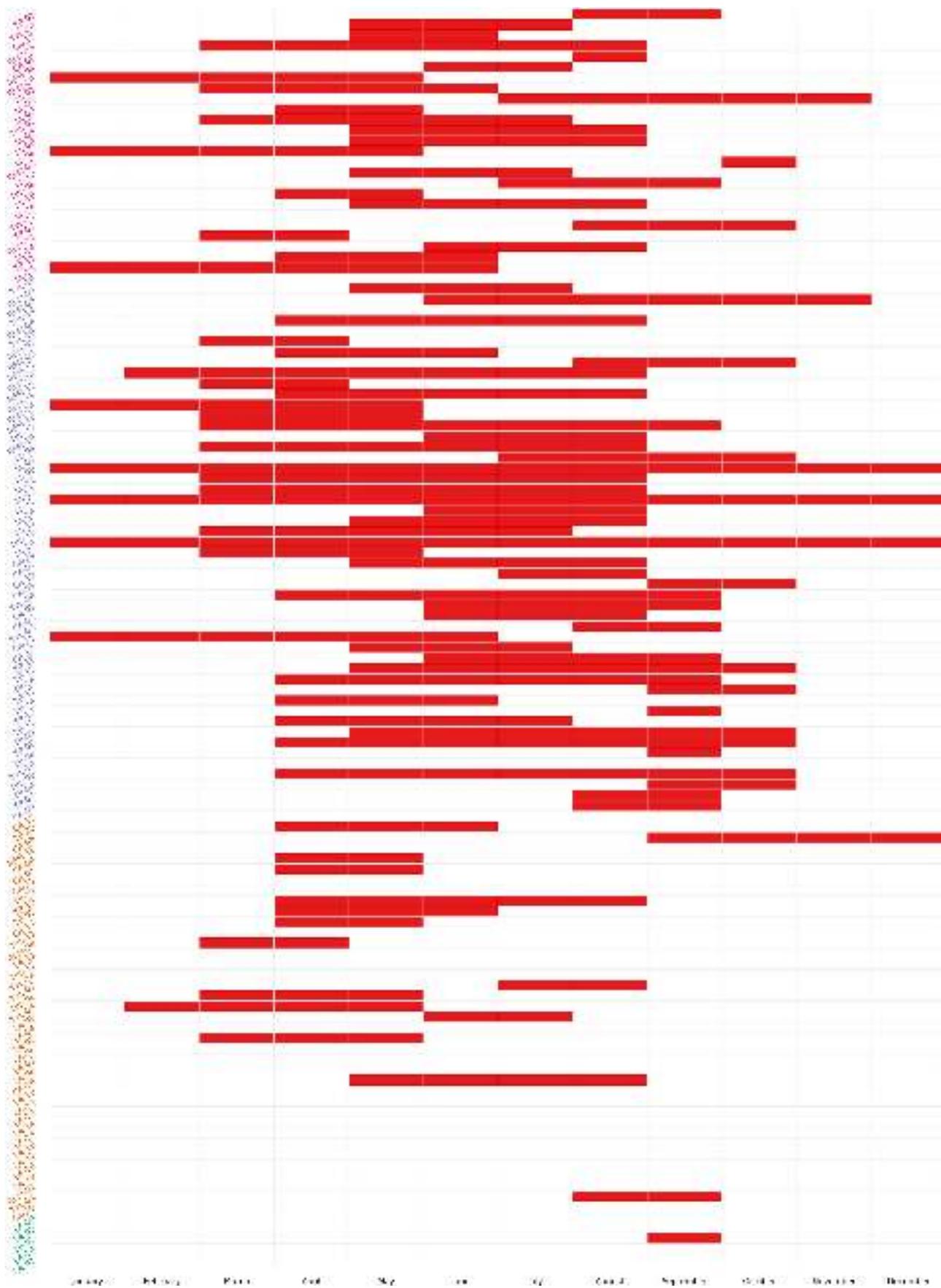


Fig. 5. Seasonal windows of food scarcity reported by domestic groups during 2017. Domestic groups are arranged according to the K-means cluster analysis.

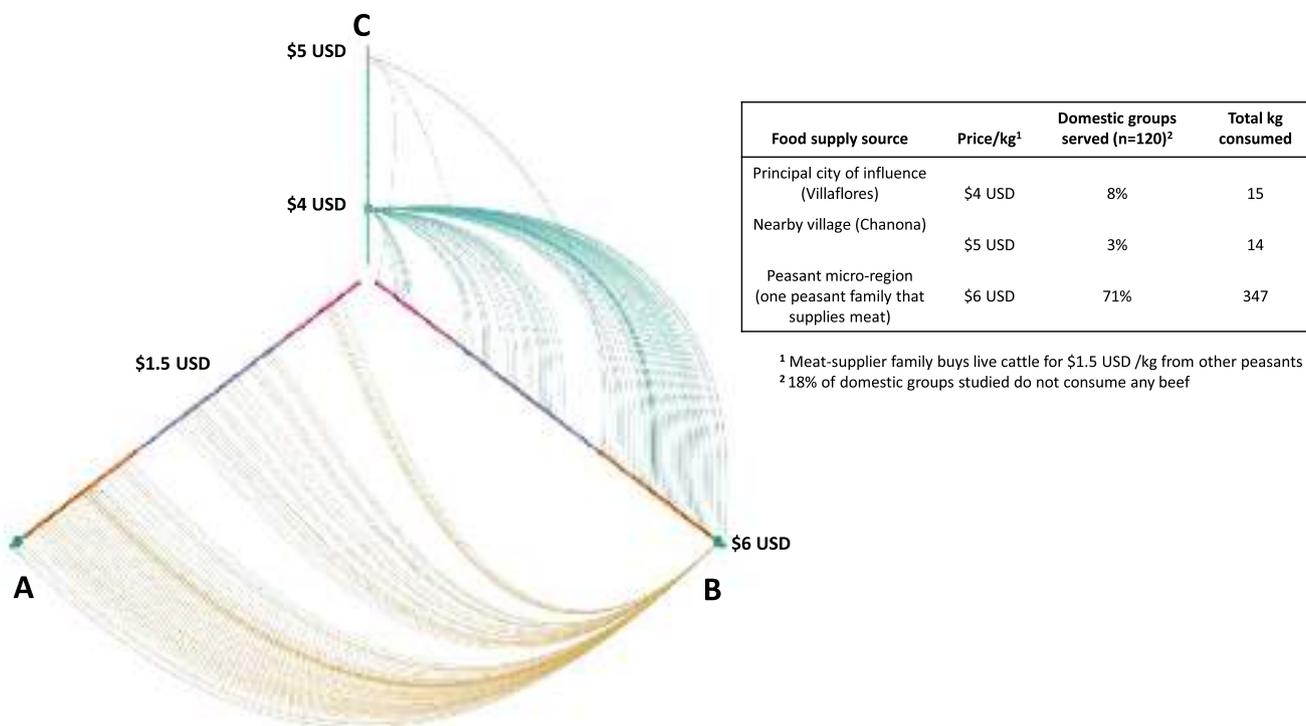


Fig. 6. Visualization of the beef supply network in the *Cuenca Alta del Río El Tablón*. Nodes of vertices A and B correspond to the identity of the domestic groups based on the K-means cluster analysis. Nodes of vertex C are suppliers from outside the micro-region. The links in the network indicate the total flow of beef consumed by each domestic group in 2017. The lower side of the network (links between A and B) indicates the endogenous supply pattern and the right side (links between B and C) indicates the exogenous supply pattern. The price route of the supply is also shown.

Counterintuitively, the local price route is greater than that outside the micro-region –despite the fact that it is a livestock raising, beef-producing region (Fig. 6). This *ganadero* family purchases a live cow for \$30 MXN per Kg (1.5 USD), butchers it, and –backed up by *ejido* regulations– sells it at \$120 MXN per Kg (6 USD) under the argument that it is of “peasant quality” (Appendini et al., 2003). In the surrounding rural areas, beef may be purchased at \$100 MXN per kg (5 USD), and in the nearby city at \$80 MXN per Kg (4 USD); nevertheless, as illustrated by the following contrasting testimonies by a peasant supplier and a consumer, respectively, currently 18% of DGs surveyed do not consume beef even once per year as they are unable to pay the high locally imposed prices:

“We put it through the *ejido* assembly, first here in Los Angeles and later in the other *ejidos*, that meat had to be purchased from within the highlands due to questions of illnesses that they were having from purchasing bad old meat from outside ... we set the price at \$120 pesos per kilo and we committed to going to sell it twice a week in each *ejido* ... we also established a \$5,000 pesos fine for anyone who brought meat to sell that wasn’t from the highlands; you can buy in Villaflores and in Chanona [nearby village] but only a small amount, for family consumption” (Peasant #3, 45 years old).

“Meat is big business that those of Los Angeles are doing. Look, they buy it from us at \$30 pesos per kilo of live cattle and then sell it at \$120 pesos just because they butcher it ... It became a luxury to eat meat here, even though we are a peasant livestock raising zone” (Peasant #4, 67 Years old).

5. Discussion and conclusions

Within the agrifood supply system of the micro-region studied, we observe a process of differentiation among peasants. In concordance with the concept of rural social structure, monopolization of means of

production in the CART by some DGs leads to dispossession of others, to the extent of polarizing their social positions. This polarization is also cohesive with the internal peasant differentiation concept (van der Ploeg, 2018), in which polarization within peasant sectors of a small subgroup of agrarian pre-capitalists (*ganaderos*) and another majority subgroup of rural semi-proletarians (*ganadarios*) is proposed, based on control of land and internal division of labor. After the *Artículo 27 Constitucional* reform, legal dispossession of land within the *ejido* has taken place and informal dispossession has continued due to the opportunity that the *ganaderos* have taken advantage of regarding the crisis of the *ganadarios*, through rural loans with high interest rates and are conditioned on handing over land when debts go unpaid (Nuijten, 2003). This kind of “peasant micro-land grabbing” process is related to the permanent primitive accumulation dynamics proposed by Rosa Luxemburg, but in an internal way. In turn, such differentiation leads to a dynamic of marginalization within peasant class, in which *ganadero* DGs increase their social reproduction at the expense of the pauperization of the social reproduction of *ganadario* DGs.

Initially, this leads us to a different interpretation of peasant exploitation than Marxist conceptualizations because the social differentiation within the CART does not originate from penetration of capital into the peasant class or pre-class, but rather social differentiation is displaced from the *fincas* system of production onto the *ejidos*, and just later begins to be interwoven with processes which are more characteristic of agrarian capitalism such as commercial relations with nearby cities, land markets, State paternalism and clientelism (Paré, 1975; Bartra, 1975; Lomnitz-Adler, 1992), as well as conservationist policies in conjunction with “green economy” type agroforestry projects (Adams, 2017). We refer to “deep” internal peasant dynamics “from below” that certainly serve as a bridge and substrate for the eventual penetration and reinforcement of the dynamics of gearing, control and exploitation that come “from outside” (Nuijten, 2002). In the study micro-region, marked social polarization has not led to development of conflictual situations

Table 3Analytical weighting of the microphysics of power reproduced in the peasant agrifood supply system of the *Cuenca Alta del Río El Tablón*.

Analytical categories	Analytical description	Expressions in the case study
General micropower policy	Each historically and spatially determined social grouping generates its truth regime within which the discourses and practices that seek to subject the subjectivity of some individuals to others make sense within the grouping.	Based on the labor differentiation system of the <i>fincas</i> , it was established that, in the foundation of the <i>ejidos</i> , labor precedence, history of arrival to the region and mestizo or indigenous identity were the central elements to define a general policy of land rights, participation in decision making and access to external resources and programs that would guide the reproduction of peasant life in the micro-region.
Micropower relations	Power is exercised on asymmetries between subjects through the interaction of dual forces.	As a result of the general policy, an internal peasant differentiation quickly took shape, which resulted in a marked micropower relationship between <i>ganaderos y ganadarios</i> .
Micropower reproduction devices	Sets of subjectivities, techniques, procedures, charges, alliances and sanctions that allow the full exercise of power.	<ul style="list-style-type: none"> -Ideological control through the possession of means of production. -Selective positions in the <i>ejido</i> and in the productive cooperatives. -Centralization of economic support for production from government and non-government programs. -Food supply hoarding. - Micro land grabbing. -High-interest rural loans. -Low pay for rural wages. -<i>Ejido</i> sanctions.
Micropower effects	Subject configuration and resulting material expressions.	<ul style="list-style-type: none"> -The imaginary of the existence of two differentiated sectors of peasants: <i>ganaderos</i> and <i>ganadarios</i>. -The subjugation of the indigenous population in rural life. -Impoverishment of a considerable sector of domestic groups. - A large number of domestic groups experience an extended food shortage season.

between the two sets of DGs that act as social forces resulting in a struggle for power, as predicted by the rural social structure theory (Galeski, 1977; Sevilla-Guzmán, 2006).

In the agrifood supply system studied, we observe that peasant power –rather than being manifested in explicit social disputes– is expressed and affects everyday life through microphysical dynamics (Table 3). We observe that this peasant micropower is strongly based on territorial precedence, internal colonialism in the relationship between mestizos and “*Indios*” (Stavenhagen, 1969), ideological control and the configuration of subjugated imaginaries (Fromm and Maccoby, 1973; Bartra, 1975), as well as the *cacicazgos*, intermediation and political factionalisms that occur through the *ejido* as a rural institution for daily construction and legitimization of the State (Ronfeldt, 1973; Gordillo, 1988; Wolf, 1990; Nuijten, 2003). We also confirm that attributes that Foucault (1978) posed as constituting the microphysics of power are reproduced in the CART: (a) Property and subordination, manifested in the exercise of power through differential accumulation of means of production; (b) Localization, manifested in the foundation of local institutions such as the *ejido* and peasant organizations; (c) Action and legality, manifested in prestige, social status, *ejido* agreements, and fines as informal forms of regulation; and (d) Purpose, manifested in a repressive-constructive tension of low wages which slows down the transformation of the CART into landscapes of remittances and subsidies, and also manifested in local monopolization of the food supply with the justification of providing high-quality peasant food.

While we recognize the valuable efforts by international peasant movements and academic activism to denounce injustice caused by global penetration of large-scale capital into agrarian regions and seek social transformation (Martínez-Torres and Rosset, 2010; Borrás and Franco, 2012), this study of a specific and “ordinary agrarian region” (Scott, 1985) demonstrates the importance of recognizing internal contradictions and even injustice within contemporary peasant societies around the world (Edelman, 2005; Edelman et al., 2014). Aside from the well-known approaches of Agrarian Political Economy, Political Ecology, and Sociology of Agriculture, ascendant analyses of power through reflexive ethnographic studies are extremely important for elucidating conditions within peasant societies (Nuijten, 2003) and critically analyzing challenges and realistic opportunities for the peasantry to influence public policy and even contribute to transforming the modern global agrifood system (Wallerstein, 1974; criticism by Bernstein, 2014).

The present case study of a peasant micro-region allows for

illustrating the enormous challenges presented by the following ideological perspectives behind many peasant movements and struggles for food sovereignty: generalizing an inherent peasant morality; virtuous vs. vicious dualism between small-scale peasants and large-scale businesses; the narrowness of focusing on emblematic peasant territories or “beacons of hope” that are essentially immersed in broader agrarian matrices that confront enormous socioeconomic, political, and environmental challenges; and expecting peasant movements that are based on locally contextualized peasant systems of logic to be able to achieve great transformation of the global agrifood regime (Edelman, 2014a, 2014b; Alonso-Fadregas et al., 2015; Robbins, 2015; Levkoe et al., 2018; Rivera-Núñez et al., 2020). After decades of working with peasants in different contexts, we consider that understanding the peasantry as a homogeneous group is an analytical reduction that does not promote critical reflection (Agarwal, 2014; Bernstein, 2014; Henderson, 2018; Soper, 2020), nor the emergence of not-so-intuitive results such as peasant micropower discussed in this paper.

For example, the beef network analyzed in the results section counterintuitively illustrates that a peasant controlled agrifood supply system may include many aspects of “food sovereignty” but, nevertheless, being monopolized by *caciques* (Giruth-Rivera, 2016). This beef network fulfills almost all of the attributes of the definition of food sovereignty proposed by Via Campesina in the 2007 Nyéléni, Declaration in Mali. The *ejidos* define their agricultural and dietary processes, their beef is nutritious, culturally appropriate, and produced in an ecological manner using silvopastoral livestock practices. It is locally marketed and distributed, and available year-round. Peasants –rather than external regulatory agencies– control production, distribution, and consumption of this beef; nevertheless, this study demonstrates that profound relationships of inequality may be reproduced even within peasant-controlled local agrifood supply systems. The microphysics of power are expressed in the near-monopoly of a supplier that concentrates 71% of the beef supply and sets internal prices that are more expensive than regional tariffs. In addition, the marked peasant differentiation generates the inability or unwillingness for many DG’s to travel to nearby cities to purchase beef, which ends up enabling the exercise of the local supplier’s power to impose fines through the *asambleas ejidales* on small merchants who supply beef from outside the micro-region.

Our study also tangentially confronts some suppositions underlying political agendas of international agencies and research programs oriented toward reducing rural poverty and promoting sustainable

livelihoods. Given their interventionist tendency, these agendas largely focus on identifying the capitals and capacities required by peasant families so that they may inject external resources that allow the peasants to respond to the constant, multiple socioeconomic disturbances experienced in rural areas (criticism by Morse and McNamara, 2013; Herrera et al., 2017; García-Barrios et al., *In Press*). These approaches rarely take into account power relationships reproduced within rural peasant populations. Paradoxically, such injection of capital and promotion of capacities –as in the case of socioeconomic policies of government agencies and agroforestry projects promoted by NGOs in the CART– often end up reinforcing internal social polarization and consequently external driven so-called “rural poverty traps” (Chappell et al., 2013; Haider et al., 2018) given that they ignore the existence and functioning of peasant micropower.

Finally, we argue that peasant micropower must be understood as a phenomenon that can be found in social relations within a large majority of rural areas around the world. The “titanic” challenge is to scrutinize the microphysics through which such powers are reproduced, analyze their effects, and propose public policy and political action that mediates or counteracts relationships of inequality that micropower generates in the given context.

Financing

The National Science and Technology Council (CONACyT) of Mexico granted a doctoral scholarship to the primary author. The Rufford Foundation financed fieldwork through Small Grant 25445–1.

Author contribution

Tlacaclé Rivera-Núñez: conceptualization, methodology, investigation, writing, funding acquisition. **Erin I.J. Estrada-Lugo:** conceptualization, supervision, writing. **Luis García-Barrios:** conceptualization, methodology, supervision, funding acquisition. **Elena Lazos:** conceptualization, supervision, writing. **María Amalia Gracia:** conceptualization, supervision, writing. **Mariana Benítez:** conceptualization, methodology, supervision, software, visualization. **Natsuko Rivera-Yodisha:** software, visualization. **Rodrigo García-Herrera:** methodology, software, visualization.

Declaration of competing interest

None.

References

- Adams, W., 2017. Sleeping with the enemy? Biodiversity conservation, corporations and the green economy. *Journal of Political Ecology* 24, 243–257.
- Agar, M., 1996. *The Professional Stranger*. Academic Press, New York.
- Agar, M., 2004. We have met the other and we're all nonlinear: ethnography as a nonlinear dynamic system. *Complexity* 10 (2), 16–24.
- Agarwal, B., 1997. “Bargaining” and gender relations: within and beyond the household. *Fem. Econ.* 3 (1), 1–51.
- Agarwal, B., 2014. Food sovereignty, food security and democratic choice: critical contradictions, difficult conciliations. *J. Peasant Stud.* 41 (6), 1247–1268.
- Alavi, H., 1973. Peasant classes and primordial loyalties. *J. Peasant Stud.* 1 (1), 23–62.
- Alonso-Fadreas, A., Borrás Jr., S.M., Holmes, T., Holt-Giménez, E., Robbins, M.J., 2015. Food sovereignty: convergence and contradictions, conditions and challenges. *Third World Q.* 36 (3), 431–448.
- Appendini, K., 2001. *De la milpa a los tortibonos: La reestructuración de la política alimentaria en México*. Colegio de México, Mexico.
- Appendini, K., 2014. Reconstructing the maize market in rural Mexico. *J. Agrar. Change* 14 (1), 1–25.
- Appendini, K., Barrios, R., de la Tejera, B., 2003. Seguridad alimentaria y ‘calidad’ de los alimentos: ¿una estrategia campesina? *Rev. Eur. Estudios Latinoam. Caribe* (75), 65–83.
- Bacon, C., Sundstrom, W., Gómez, M., Méndez, E., Santos, R., Goldoftas, B., Dougherty, I., 2014. Explaining the ‘hungry farmer paradox’: smallholders and fair trade cooperatives navigate seasonality and change in Nicaragua’s corn and coffee markets. *Global Environ. Change* 25, 133–149.
- Barkin, D., 1987. The end to food self-sufficiency in Mexico. *Lat. Am. Perspect.* 14 (3), 271–297.

- Bartra, R., 1972. Campesinado y poder político en México. *Rev. Mexic. Soc.* 34 (4).
- Bartra, R., 1975. Campesinado y poder político en México. In: Bartra, R., Boege, E., Calvo, P., Gutiérrez, J., Martínez, V., Paré, L. (Eds.), *Caciquismo y Poder Político en el México Rural*. Siglo Veintiuno Editores, México.
- Bernard, H., 1995. *Research Methods in Anthropology*. AltaMira, Walnut Creek.
- Bernstein, H., 1979. Concepts of the analysis of contemporary peasantries. *J. Peasant Stud.* 6, 4.
- Bernstein, H., 2010. *Class Dynamics of Agrarian Change*. Fernwood Publishing, Halifax and Winnipeg.
- Bernstein, H., 2014. Food sovereignty via the ‘peasant way’: a skeptical view. *J. Peasant Stud.* 41 (6), 1031–1063.
- Berry, R., 1999. Collecting data by in-depth interviewing. In: *British Educational Research Association Annual Conference*. University of Sussex at Brighton.
- Borrás, S., 2009. Agrarian change and peasant studies: changes, continuities and challenges – an introduction. *J. Peasant Stud.* 36 (1), 5–31.
- Borrás, S., Franco, J., 2012. Global land grabbing and trajectories of agrarian change: a preliminary analysis. *J. Agrar. Change* 12 (1), 34–59.
- Borrás, S., Edelman, M., Kay, C., 2008. Transnational agrarian movements: origins and politics, campaigns and impact. *J. Agrar. Change* 8 (2-3), 169–204.
- Braasch, M., García-Barrios, L., Ramírez-Marcial, N., Huber-Sannwald, E., Cortina-Villar, S., 2017. Can cattle grazing substitute fire for maintaining appreciated pine savannas at the frontier of a montane forest biosphere-reserve? *Agric. Ecosyst. Environ.* 250, 59–71.
- Burch, D., Lawrence, G.A., 2005. Supermarket own brands, supply chains and the transformation of the agri-food system. *Int. J. Sociol. Agric. Food* 13 (1), 1–18.
- Buttel, F., 1990. Social relations and the growth of modern agriculture. In: Carrol, C., Ronal, J., Vandermeer, J., Rosset, P. (Eds.), *Agroecology*. McGraw-Hill, New York.
- Cernea, M.M., Kassam, A.H., 2006. *Researching the Culture in Agri-Culture: Social Research for International Development*. CABI Publishing, Wallingford.
- Chappell, M., Wittman, H., Bacon, C., Ferguson, B., Barrios, L., Barrios, R., Soto-Pinto, L., 2013. Food sovereignty: an alternative paradigm for poverty reduction and biodiversity conservation in Latin America. *F1000Research* 2.
- Charmaz, K., 2006. *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis*. Sage, Thousand Oaks.
- Chayanov, A.V., 1924. *La organización de la unidad económica campesina*, 1985. Nueva Visión, Buenos Aires.
- Chayanov, A., 1966. *The Theory of Peasant Economy*. Irwin, Homewood.
- Collier, S., 2009. Topologies of power: Foucault’s analysis of political government beyond ‘governmentality’. *Theor. Cult. Soc.* 26 (6), 78–108.
- Creswell, J., 1998. *Qualitative Inquiry and Research Design: Choosing Among Five Traditions*. Sage, Thousand Oaks.
- Cruz-Morales, J., 2014. Desafíos para construir la democracia ambiental en la Cuenca Alta del Río El Tablón, Reserva de la Biosfera La Sepultura, Chiapas, México. In: Legorreta Díaz, C., Márquez Rosano, C., Trench, T. (Eds.), coordinators. *Paradojas de las tierras protegidas: Democracia y política ambiental en reservas de la biosfera en Chiapas*. UNAM/Universidad Autónoma Chapingo, Mexico.
- Deleuze, G., Guattari, F., 1988. *A Thousand Plateaus: Capitalism and Schizophrenia*. Bloomsbury Publishing, London.
- Desmarais, A., 2008. The power of peasants: reflections on the meanings of La Vía Campesina. *J. Rural Stud.* 24 (2), 138–149.
- Durston, J., 1998. Juventud y desarrollo rural: marco conceptual y contextual. *Serie Políticas Sociales, CEPAL*, Santiago.
- Edelman, M., 2005. Bringing the moral economy back into the study of 21st-century transnational peasant movements. *Am. Anthropol.* 107 (3), 331–345.
- Edelman, M., 2014a. Food sovereignty: forgotten genealogies and future regulatory challenges. *J. Peasant Stud.* 41 (6), 959–978.
- Edelman, M., 2014b. The next stage of the food sovereignty debate. *Dialogues in Human Geography* 4 (2), 182–184.
- Edelman, M., Weis, T., Bavisar, A., Borrás, S., Holt-Giménez, E., Kandiyoti, D., Wolford, W., 2014. Introduction: critical perspectives on food sovereignty. *J. Peasant Stud.* 41 (6), 911–931.
- Ellis, F., 1993. *Peasant Economics: Farm Households in Agrarian Development*. Cambridge University Press, Cambridge.
- Esteva, G., 1980. *La batalla en el México rural*. Siglo XXI, Mexico.
- Fábregas-Puig, A., 2010. *Configuraciones Regionales Mexicanas*. Un Planteamiento Antropológico. CEDESTAB, Mexico.
- Fortes, M., 1971. Introduction. In: Goody, J. (Ed.), *The Developmental Cycle in Domestic Groups*. Cambridge University Press, Cambridge.
- Foucault, M., 1978. *Microfísica del poder*. El Viejo Topo, Spain.
- Foucault, M., 1980. *Power/Knowledge*. Pantheon Books, New York.
- Friedmann, H., 1987. International regimes of food and agriculture since 1870. In: Shanin, T. (Ed.), *1987. Peasants and Peasant Societies*. Blackwell Publishers, Oxford.
- Friedmann, H., 2000. What on earth is the modern world-system? Food-getting and territory in the modern era and beyond. *Journal of World-System Research* VI (2), 480–515.
- Friedmann, H., McMichael, P., 1989. Agriculture and the state system: the rise and fall of national agricultures, 1870 to the present. *Sociol. Rural.* 29 (2), 93–117.
- Fromm, E., Maccoby, M., 1973. *Sociopsicoanálisis del campesino mexicano: estudio de la economía y la psicología de una comunidad rural*. Fondo de Cultura Económica, Mexico.
- Galeski, B., 1974. From peasant to farmer: social changes in rural Poland. *Polish Sociology* 231–243.
- Galeski, B., 1977. *Sociología del Campesinado*. Península, Barcelona.
- Galpin, C., 1915. *The social anatomy of an agriculture community*. Agricultural Experimental Station Research Bulletin 34.

- García-Barrios, L., González-Espinosa, M., 2017. Investigación ecológica participativa como apoyo de procesos de manejo y restauración forestal, agroforestal y silvopastoril en territorios campesinos. Experiencias recientes y retos en la sierra Madre de Chiapas, México. *Rev. Mex. Biodivers.* 88, 129–140.
- García-Barrios, L., Rivera-Núñez, T., Cruz-Morales, J., Urralpideta-Carrasco, J., Castro-Salcido, E., Peña-Azcona, I., Martínez-López, O., López-Cruz, A., Morales, M. and Espinoza, J., The Flow of Peasant Lives: a board game that simulates livelihood strategies and trajectories derived from complex rural household's decisions. *Ecol. Soc.*, (in press).
- García-Barrios, L., Galván-Miyoshi, Y., Valdivieso-Pérez, I., Masera, O., Bocco, G., Vandermeer, J., 2009. Neotropical forest conservation, agricultural intensification, and rural out-migration: the Mexican experience. *Bioscience* 59 (10), 863–873.
- García-Barrios, L., Cruz-Morales, J., Braasch, M., Dechnik, Vázquez, Gutierrez-Navarro, Y., Meza-Jiménez, A., Rivera-Núñez, A., Speelman, T., Trujillo-Díaz, E., G. Valencia, V., Zabala-Aizpuru, A., 2020. Challenges for rural livelihoods, participatory agroforestry and biodiversity conservation in a neotropical biosphere reserve in Mexico. In: Baldauf, C. (Ed.), *Participatory Biodiversity Conservation: Concepts, Experiences and Perspectives*. Springer, Switzerland.
- Goldring, L., 1996. The changing configuration of property rights under ejidal reform. In: Randall, L. (Ed.), *Reforming Mexico's Agrarian Reform*. M.E. Sharpe, Armonk, NY.
- Goodman, D., Watts, M., 1997. *Globalizing Food: Agrarian Questions and Global Restructuring*. Routledge, London.
- Gordillo, G., 1988. El leviatán rural y la nueva sociabilidad política. In: Zepeda, J. (Ed.), *Las sociedades rurales hoy*. Zamora: El Colegio de Michoacán, CONACYT.
- Haider, L., Boonstra, W., Peterson, G., Schlüter, M., 2018. Traps and sustainable development in rural areas: a review. *World Dev.* 101, 311–321.
- Henderson, T.P., 2018. The class dynamics of food sovereignty in Mexico and Ecuador. *J. Agrar. Change* 18 (1), 3–21.
- Herrera, O., Parra, M., Livscofsky, I., Ramos, P., Gallardo, D., 2017. Lifeways and territorial innovation: values and practices for promoting collective appropriation of territory. *Commun. Dev. J.* 1–19.
- Janvry, A., 1983. Historical forces that have shaped world agriculture: a structuralist perspective. In: Haynes, R. (Ed.), *Agriculture, Change and Human Values*. University of Florida, Florida.
- Johnston, B., 1987. *U.S.-Mexico Relations: Agriculture and Rural Development*. Stanford University Press, Stanford.
- Joseph, G., 1985. El caciquismo y la Revolución: carrillo Puerto en Yucatán. In: Brading, D., comp (Eds.), *Caudillos y campesinos en la Revolución mexicana*. Fondo de Cultura Económica, Mexico.
- Katz, F., 1974. Labor conditions on haciendas in porfirian Mexico: some trends and tendencies'. *Hisp. Am. Hist. Rev.* 54 (1), 1–47.
- Kaustky, K., 1899. *Die Agrarfrage*. Zwan Publications, London.
- Kovalevsky, M., 1891. Etudes sur le droit contumier russe. Generalités la famille. De l'appropriation du sol par le travail en Petite Russie et en Ukraine. *Nouvelle revue historique de droit française et étranger* 15, 480–516.
- Krzywinski, M., Birol, I., Jones, S., Marra, M., 2011. Hive plots — rational approach to visualizing networks. *Briefings Bioinf.* 13 (5), 627–644.
- Lazos, E., 2017. L'intégration des connaissances locales sur le maïs dans les politiques agroalimentaires au Mexique est-elle possible? *Autrepart* 81, 57–74.
- Lenin, V., 1899. *El desarrollo del capitalismo en Rusia*. En: *Obras Completas*. 1969. Tomo III. Cartago, Buenos Aires.
- Levkoe, C., Brem-Wilson, J., Anderson, C., 2018. People, power, change: three pillars of a food sovereignty research praxis. *J. Peasant Stud.* 1–24.
- Lewontin, R., Berlan, J., 1986. Technology, research and the penetration of capital: the case of U.S. Agriculture. *Mon. Rev.* 38, 21–34.
- Lomnitz-Adler, C., 1992. Exits from the Labyrinth: Culture and Ideology in the Mexican National Space. *University of California Press*, Berkeley, Los Angeles and Oxford.
- Lynch, R., 2014. Foucault's theory of power. In: Taylor, D. (Ed.), *Michel Foucault: Key Concepts*. Acumen, Durham.
- Martínez-Torres, M., Rosset, P., 2010. La Vía Campesina: the birth and evolution of a transnational social movement. *J. Peasant Stud.* 37 (1), 149–175.
- Mazoyer, M., 2001. *Defendiendo al campesinado en un contexto de globalización*. FAO, Rome.
- McMichael, P., 2009. A food regime genealogy. *J. Peasant Stud.* 36 (1), 139–169.
- Morris, M., Leung, K., Ames, D., Lickel, B., 1999. Views from inside and outside: integrating emic and etic insights about culture and justice judgment. *Acad. Manag. Rev.* 24 (4), 781–796.
- Morris, K., Méndez, E., Olson, M., 2013. 'Los meses flacos': seasonal food insecurity in a Salvadoran organic coffee farming cooperative. *J. Peasant Stud.* 40 (2), 457–480.
- Morse, S., McNamara, N., 2013. *Sustainable Livelihood Approach: A Critique of Theory and Practice*. Springer, New York.
- Netting, R.M., 1993. *Smallholders, Householders: Farm Families and the Ecology of Intensive, Sustainable Agriculture*. Stanford University Press, Stanford.
- Nuijten, M., 2002. Organizing the Peasants: Participation, Organization and the Politics of Development in a Mexican Government Program, pp. 223–235. *Anthropologica*.
- Nuijten, M., 2003. *Power, Community and the State: the Political Anthropology of Organisation in Mexico*. Pluto Press, London.
- Olivera, M., 1980. Sobre la explotación y opresión de las mujeres acasilladas en Chiapas. In: Much, G. (Ed.), *El sur de México: Datos sobre la problemática indígena*. UNAM, México.
- Otero, G., Gürcan, E.C., Pechlaner, G., Liberman, G., 2018. Food security, obesity, and inequality: measuring the risk of exposure to the neoliberal diet. *J. Agrar. Change* 18 (3), 536–554.
- Pagès, J., 2004. Analyse factorielle de Données mixtes. *Rev. Stat. Appl.* 4, 93–111.
- Paré, L., 1975. Caciquismo y Estructura de Poder en la Sierra Norte de Puebla. In: Bartra, R., Boege, E., Calvo, P., Gutiérrez, J., Martínez, V., Pare, L. (Eds.), *Caciquismo y Poder Político en el México Rural*. Siglo Veintiuno Editores, Mexico, 5.
- Pottier, J., 1999. *Anthropology of Food: the Social Dynamics of Food Security*. Polity Press, Oxford.
- Powell, J., 1970. Peasant society and clientelist politics. *Am. Polit. Sci. Rev.* 64 (2), 411–425.
- Pretty, J.N., 2002. *Agri-culture: Reconnecting People, Land, and Nature*. Earthscan, London.
- Raynolds, L., Murray, D., Wilkinson, J. (Eds.), 2007. *Fair Trade: the Challenges of Transforming Globalization*. Routledge, London.
- Rivera-Núñez, T., Fargher, L., Nigh, R., 2020. Toward an Historical Agroecology: an academic approach in which time and space matter. *Agroecology and Sustainable Food Systems* 1–37.
- Robbins, M.J., 2015. Exploring the 'localisation' dimension of food sovereignty. *Third World Q.* 36 (3), 449–468.
- Ronfeldt, D., 1973. *Atencingo: the Politics of Agrarian Struggle in a Mexican Ejido*. Stanford University Press, Stanford.
- Rosset, P., Martínez-Torres, M., 2012. Rural social movements and agroecology: context, theory, and process. *Ecol. Soc.* 17 (3).
- Rus, J., 1995. Local adaptation to global change: the reordering of native society in highland Chiapas, Mexico, 1974–1994. In: *European Review of Latin American and Caribbean Studies/Revista Europea de Estudios Latinoamericanos y Del Caribe*, vol. 58, pp. 71–89.
- Scoones, I., Edelman, M., Borrás, S., Hall, R., Wolford, W., White, B., 2018. Emancipatory rural politics: confronting authoritarian populism. *J. Peasant Stud.* 45 (1), 1–20.
- Scott, J., 1985. *Weapons of the Weak: Everyday Forms of Peasant Resistance*. Yale University Press, New Haven, CT and London.
- Sevilla-Guzmán, E., 2006. *Desde El Pensamiento Social Agrario*. Universidad de Córdoba, Córdoba.
- Shanin, T., 1971. *Peasants and Peasant Societies*. Blackwell Publishers, Oxford.
- Soper, R., 2020. From protecting peasant livelihoods to essentializing peasant agriculture: problematic trends in food sovereignty discourse. *J. Peasant Stud.* 1–21.
- Spalding, R., 1985. El sistema Alimentario mexicano (SAM): ascenso y decadencia. *Estud. Sociol.* 315–349.
- Speelman, E., Groot, J., García-Barrios, L., Kok, K., van Keulen, H., Tittonell, P., 2014. From coping to adaptation to economic and institutional change: trajectories of change in land use management and social organization in a Biosphere Reserve community, Mexico. *Land Use Pol.* 41, 31–44.
- Stavenhagen, R., 1963. *Clases, colonialismo y aculturación. Ensayo sobre un sistema de relaciones interétnicas en Mesoamérica*. América Latina. *Revista del Centro Latinoamericano de Investigaciones en Ciencias Sociales* 6 (4).
- Stavenhagen, R., 1969. *Las clases sociales en las sociedades agrarias*, vol. XXI, siglo, México.
- Strauss, A., Corbin, J., 1997. *Grounded Theory in Practice*. Sage, Thousand Oaks.
- Thompson, J., Scoones, I., 2009. Addressing the dynamics of agri-food systems: an emerging agenda for social science research. *Environ. Sci. Pol.* 12 (4), 386–397.
- Tittonell, P., Muriuki, A., Shepherd, K., Mugendi, D., Kaizzi, K., Okeyo, J., Vanlauwe, B., 2010. The diversity of rural livelihoods and their influence on soil fertility in agricultural systems of East Africa – a typology of smallholder farms. *Agric. Syst.* 103 (2), 83–97.
- Tria Kerkvliet, B., 2009. Everyday politics in peasant societies (and ours). *J. Peasant Stud.* 36 (1), 227–243.
- Valdivieso-Pérez, I., García-Barrios, L., Álvarez-Solís, D., Nahed-Toral, J., 2012. De maizales a potreros: cambio en la calidad del suelo. *Terra Latinoamericana* 30 (4).
- Valencia, V., García-Barrios, L., West, P., Sterling, E., Naeem, S., 2014. The role of coffee agroforestry in the conservation of tree diversity and community composition of native forests in a Biosphere Reserve. *Agric. Ecosyst. Environ.* 189, 154–163.
- van der Ploeg, J., 2009. *The New Peasantries: Struggles for Autonomy and Sustainability in an Era of Empire and Globalization*. Earthscan, London.
- van der Ploeg, J., 2014. *Peasants and the Art of Farming: A Chayanovian Manifesto*. Fernwood Publishing, Halifax.
- van der Ploeg, J., 2018. Differentiation: old controversies, new insights. *J. Peasant Stud.* 45 (3), 489–524.
- van der Ploeg, J., Ventura, F., 2014. Heterogeneity reconsidered. *Current Opinion in Environmental Sustainability* 8, 23–28.
- Viqueira Albán, J., 2000. *Los peligros del Chiapas imaginario*. Universidad de Ciencias y Artes de Chiapas, Centro de Estudios Superiores de México y Centroamérica, San Cristóbal de las Casas.
- Wallerstein, I., 1974. *The Modern World-System*. Academic, New York.
- Warman, A., 1976. *Y venimos a contradecir: los campesinos de Morelos y el Estado Nacional*. Ediciones de la Casa Chata, Mexico.
- Warman, A., 1980. *Los campesinos: hijos predilectos del régimen*. Editorial Nuestro Tiempo, Mexico.
- Wolf, E., 1956. Aspects of group relations in a complex society: Mexico. *Am. Anthropol.* 58 (6), 1065–1078.
- Wolf, E., 1990. Facing power: old insights, new questions. *Am. Anthropol.* 92 (3), 586–596.
- Zabala, A., Pascual, U., García-Barrios, L., 2017. Payments for pioneers? Revisiting the role of external rewards for sustainable innovation under heterogeneous motivations. *Ecol. Econ.* 135, 234–245.