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Incorporation of different types of farmers into different coffee markets

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ABSTRACT

Many development organizations aim for *greater incorporation* of farmers into the market; however, global value chain scholars warn that farmers may be adversely incorporated and advise to analyse the *terms* by which farmers are incorporated. This paper sheds light on the dynamics of value chains by showing how the terms by which farmers are incorporated into the market vary significantly depending on the type of farmer and market. To generate benefits for small farmers' livelihoods, we urge practitioners to consider the workings of multiple marketing channels and the ways in which farmers of different social classes interact with them.

RÉSUMÉ

De nombreux organismes de développement soutiennent une meilleure incorporation des agriculteurs dans le marché; cependant, les spécialistes des chaînes de valeur globales indiquent que cette incorporation pourrait avoir des effets adverses, et ils recommandent une analyse des modalités selon lesquelles les agriculteurs seraient incorporés. Dans cet article, nous étudions les dynamiques des chaînes de valeur, et démontrons que les modalités de l'incorporation des agriculteurs dans le marché varient de manière significative, dépendant du type de leur production et du marché. Afin de générer des bénéfices pour la subsistance des petits agriculteurs, nous encourageons les praticiens à considérer la manière dont fonctionnent différents circuits de commercialisation, et la manière dont les agriculteurs provenant de différentes classes sociales interagissent avec ceux-ci.

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Introduction

The study of value chains is a relevant point of reference for improving small farmers' livelihoods. Many development interventions have focused on providing small farmers with agricultural inputs and technical assistance to increase their *incorporation into the market* – their premise is that *greater market incorporation* will benefit farmers'

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livelihoods (FAO 2020). However, certain scholars engaged with the so-called global value chain approach have noted that such interventions have failed to consider that incorporation into the market may also generate stumbling blocks (Bolwig et al. 2010; Bray and Neilson 2018; du Toit 2009; Helmsing and Vellema 2011; Neilson and Shonk 2014; Ponte 2008). These scholars advise that rather than aiming for *greater incorporation*, there is a need to address the *terms* or *conditions* by which farmers are incorporated into the market.

While global value chain scholars raise the importance of paying attention to the conditions by which farmers are incorporated into the market, few address variation in the types of relations that emerge between different types of farmers and diverse marketing options. Therefore, this paper analyses how incorporation of farmers into coffee marketing channels generates different types of relationships. For this, we first identify differences among farmers regarding their control over their means of production (Bernstein 2010), and then address the terms by which different types of farmers are incorporated into distinct markets (Bolwig et al. 2010). The objective of this study is to understand the struggles that different social classes face in relation to capital and the market, and the implications of these struggles for the global value chain approach and Mexican development policies.

This study uses a qualitative approach based on semi-structured interviews and focus groups carried out from October 2018 to January 2020 in the Soconusco region of Chiapas. A total of 82 coffee farmers were interviewed in the following 14 towns: Agustín de Iturbide, Benito Juárez, Cacahoatán, Carrillo Puerto, El Águila, El Edén, El Platanar, Faja de Oro, Tapachula, Tuxtla Chico, Progreso, Salvador Urbina, Santo Domingo, and Unión Juárez (see Figure 1). Other interviews were held with: (1) local and federal level directors and operational staff of the *Secretaría de Agricultura y Desarrollo Rural* (Ministry of Agriculture and Rural Development [SADER]) and the *Secretaría de Bienestar* (Ministry of Well-being [BIENESTAR]); (2) staff of coffee trading companies, including international companies such as Nestlé; (3) members of coffee farmer organizations; and (4) academics specialized in Mexican coffee policies and the agricultural sector.

This paper is structured as follows. The following section presents our approach regarding incorporation of farmers into the market and how we differentiate farmers. The third section presents some factors involved in how coffee is currently cultivated in Soconusco. The fourth section characterizes four marketing options for coffee farmers in Soconusco – Nestlé, farmer organizations, local buyers, and direct marketing – and discusses socio-economic differences among farmers in this region. The fifth section analyses variations in the ways in which different farmers relate to different marketing channels in Soconusco. The final section discusses the implications of our findings for the global value chain approach and for development interventions in Mexico.

Conceptualizing incorporation of farmers into the market and differentiation among farmers

Incorporation of farmers into the market

Value chains have been a point of reference for development interventions. Many international organizations and government agencies have implemented a variety of programmes that provide agricultural inputs and technical assistance to achieve *greater incorporation* of

Figure 1. Soconusco region of Chiapas.

Note: Elaborated by Marian Vittek, researcher of Wageningen Environmental Research.

farmers into the market (FAO 2020). In the particular case of coffee in Mexico, such efforts have been focused on supporting small-scale farmers to improve the quality of their coffee so that they participate in the organic market, which is considered to be that which generates the highest returns (Jurado Celis and Bartra Vergés 2012; SAGARPA 2015).

Recent literature, however, observes that incorporation of small farmers into the market has not always been beneficial for their livelihoods and that farmers may be *adversely incorporated* (du Toit 2009; Hickey and du Toit 2007; Ponte 2022; Vellema 2016). In the case of coffee, much attention has been paid to disadvantages to farmers' livelihoods resulting from organic coffee certification, including: (1) receiving low returns despite having been certified (Barham and Weber 2012; Méndez et al. 2010; Valkila 2014); (2) additional capital and labour required for farmers to meet standard requirements (Calo and Wise 2005; Jaffee 2014; Wilson 2010); (3) the bureaucratic process involved in obtaining certification (Mutersbaugh 2004); and (4) conflicts within coffee farmer organizations, and the fact that certain local elites obtain most of the economic and social benefits of certification (Gómez Tovar et al. 2005; González and Nigh 2005; Vicol et al. 2018).

Considering potential disadvantages of incorporation of farmers into the market, some authors advise that development interventions should focus on the *terms* or *conditions* by which farmers are incorporated, rather than assuming that farmers will benefit from *greater market incorporation* (Bolwig et al. 2010; Bray and Neilson 2018; Castellanos-Navarrete and Jansen 2018; du Toit 2009; Helmsing and Vellema 2011; Neilson and Shonk 2014; Ponte 2008). This paper builds on this critical perspective and analyses the ways in which the conditions of incorporation vary according to farmers' social class and different marketing options.

Social differentiation

Most development interventions are aimed at improving small farmers' livelihoods. While the definition of *small farmer* varies from intervention to intervention, it tends to be principally based on the size of their landholding. For instance, with respect to international organizations, the World Bank (2003) considers small farmers to be those who own less than 2 hectares and have few assets. According to the Food and Agriculture Organization of the United Nations (FAO, n.d.) small farmers are those who farm surface areas ranging from 1 to 10 hectares, principally use family labour, and devote part of their production to family consumption. The International Fund for Agricultural Development (IFAD and UNEP 2013) lacks a set definition of small farmer but states that *small* refers to the amount of land worked, number of workers, and amount of capital invested. According to the Mexican state (DOF 2020a), small farmers own less than 5 hectares, principally rely on family labour, have limited access to agricultural resources, and produce mainly for self-consumption.[1]

While access to land is relevant for classifying farmers, we consider that simple categories based on farm size as used by international organizations and the Mexican state overlook structural differences among farmers with respect to the way in which they relate to capital, labour, and the market.[2] Rather, we propose to differentiate farmers according to the theoretical contributions of Bernstein (2010) who poses three categories of farmers: *emergent capitalist farmers*, *petty commodity producers*, and *semi-proletarian farmers. Emergent capitalist farmers* are those who expand their relations of production and reproduction, employ wage labour (possibly combined with unpaid family labour), accumulate productive assets over time, and diversify their income sources by investing in crop trading, processing, and transportation, as well as by offering loans. *Petty commodity producers* are farmers who own land, use their own as well as family labour, and hire poorer farmers. They are unable to increase their production as do capitalist farmers but achieve simple reproduction from the market. *Semi-proletarian farmers* are those who are unable to reproduce themselves as capital and must sell their labour. While they may have access to land, they lack sufficient high-quality land and/or the capacity to access necessary means of production, such as tools and seeds.[3] This study adopts this categorization to identify how different types of farmers interact with different marketing channels.[4]

Coffee farming in Soconusco

Although Soconusco shares a similar socioeconomic context with other coffee-growing regions of Mexico, the way in which coffee farming is carried out in the region also

has unique traits. First, the region underwent a structural change from large to small-scale production. In the late nineteenth and early twentieth centuries, coffee production was controlled principally by Germans who owned large coffee plantations (an average of 1,200 hectares), hired large numbers of labourers from Chiapas and Guatemala, processed coffee with the most modern equipment of the times, and exported it to Europe and the United States (Bartra 1995; Baumann 1983; Kuntz Ficker 2010).

The shift toward small-scale production began in the mid-twentieth century as a result of the administration of President Lázaro Cárdenas (1934–1940) carrying out a major land distribution in favour of collective landholdings of small-scale farmers (*ejidos*; Castellanos-Navarrete and Jansen 2017; Helbig 1964). The shift toward small-scale production was also fomented as a result of the *Instituto Mexicano del Café* (Mexican Coffee Institute [INMECAFE], in operation from 1958 to 1989) motivating small-scale farmers to begin coffee production by providing them with plants and fertilizer (Bartra Vergés, Cobo, and Paz Paredes 2011). Currently, Soconusco has 11,927 coffee farmers (with a total of 35,448 hectares in cultivation), and most of them are smallholders (see Figure 2).

A second difference between coffee production in Soconusco and other regions of Mexico is that while most other regions principally produce the arabica species, in Soconusco the robusta species is also cultivated. Both species are traded and consumed globally; however, significant differences exist with respect to their technical characteristics and the type of market in which they are sold. Arabica is advised for cultivation at altitudes above 1,000 metres with mild temperatures, and due to its flavour and aroma is considered to be of higher quality than robusta. This species tends to be directed toward niche markets such as organic or speciality markets; however, it is highly susceptible to the fungus coffee leaf rust and requires much more labour than does robusta. Robusta is advised for cultivation at altitudes below 700 metres and is principally sold

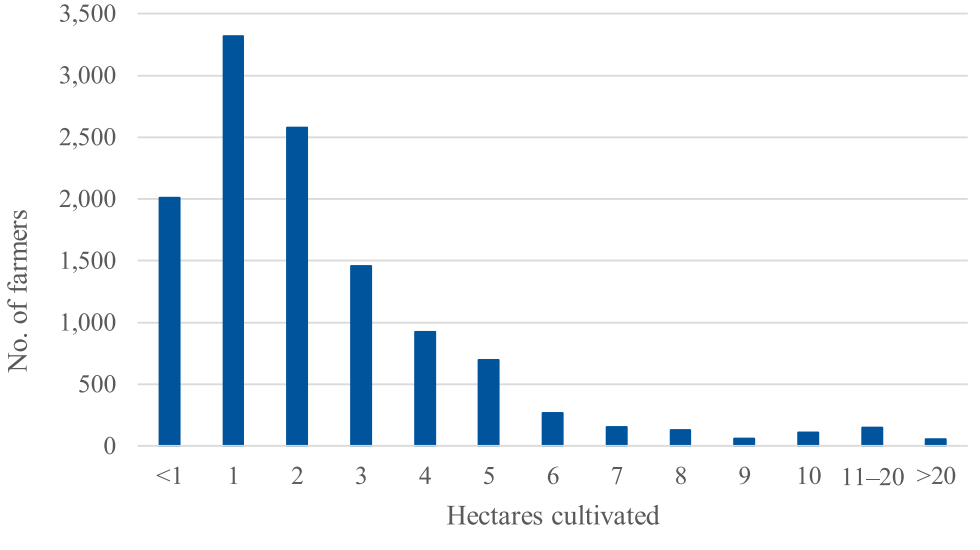

Figure 2. Number of coffee farmers according to hectares cultivated, Soconusco, 2018.
Note: Elaborated with data provided by SADER.

to Nestlé for production of instant coffee due to its high caffeine levels. Although the quality of robusta tends to be lower than that of arabica, robusta produces higher yields. In Soconusco, farmers sell arabica as parchment coffee, while robusta is sold as cherries.

Another characteristic of coffee farming in Soconusco is the challenge for farmers presented by low coffee prices and coffee leaf rust (Renard and Ortega Breña 2010). With respect to low prices, in 2019 on an international level, the price per pound[5] was $1.00 dollar, much lower than the 10-year average of $1.36 dollars per pound, and the lowest price since 2006 (ICO, n.d.). The International Coffee Organization (ICO 2020) has pointed out that farmers paid this price struggle greatly to cover costs of production. Regarding coffee rust, coffee plantations have been severely affected, particularly in the 1980s when this fungus was first reported at lower altitudes in Soconusco (Barrera 2017),[6] and in 2012–2013 when a proliferation reached altitudes above 900 metres, causing a 30 per cent reduction in coffee yields (Avelino and Anzueto 2020). When coffee rust affected farmers at low altitudes in the 1980s, most switched from cultivating arabica to robusta, and since rust appeared at higher altitudes in 2012–2013, farmers have also gradually transitioned to robusta (Ruiz Meza 2015; Ruiz-de-Oña, Rivera-Castañeda, and Merlín-Uribe 2019). However, it should be noted that robusta produces lower yields at higher altitudes than at lower altitudes.

A final characteristic of Soconusco is that due to high poverty levels, the region has been targeted by state programmes. Two federal agricultural programmes currently operate in the area: (1) *Sembrando Vida* (Sowing Life) which is implemented by BIENESTAR and provides $5,000 *pesos* (~$259 dollars) per month to farmers holding 2.5–20 hectares so that they introduce agroecological practices and cultivate organically (DOF 2020b). And (2) *Producción para el Bienestar* (Production for Well-being) which is operated by SADER and provides $5,000 *pesos* (~$259 dollars) per year to farmers with less than 20 hectares to invest in plants and fertilizers and reduce agrochemical use (DOF 2019).

Marketing channels and differentiation among farmers in Soconusco

In Soconusco coffee farmers sell their coffee through four different marketing channels: Nestlé, coffee farmer organizations, local buyers, and direct marketing. Although all four channels specialize in coffee collection, they vary greatly with respect to the coffee species they purchase (arabica or robusta), the types of farmers from whom they purchase, their collection mechanism, their expectations regarding quality, and payment and agricultural services they provide to farmers.

Nestlé principally offers its services in towns located below 700 metres in altitude, where robusta cultivation is prevalent. Since 2010, it has operated the Nescafé Plan, through which it provides to farmers robusta plantlets (free of charge) that produce higher yields, are highly resistant to coffee rust, and occupy less space than so-called *traditional* and *improved* varieties (Nestlé 2021).[7] Through the Nescafé Plan, the company also provides technical assistance for farmers to grow Nestlé's plants and implement practices required by the international 4C certification which fosters sustainable practices, including elimination of highly volatile chemicals (such as paraquat), preservation

of flora and fauna, and fair labour practices (Club Pro 2016). Through the Nescafé Plan, the company also provides coffee sacks, shade cloths, and loans.

While any type of farmer may join the Nescafé Plan, by providing plants and technical assistance the company expects farmers to increase the quality of their coffee in order to obtain 60 per cent of yield, 12 per cent of moisture, and 18 per cent of defects. If farmers meet these quality standards, the company pays the market price; however, if farmers do not meet them, they are paid less. Furthermore, those meeting the sustainability requirements established by the 4C receive a premium ranging from $0.60 to $1.00 *pesos* (~$0.03–$0.05 dollars) per kilo. Regardless of the amount of coffee that farmers sell, Nestlé pays upon reception, using specialized equipment to measure the quality and amount of coffee purchased.

In Soconusco, Nestlé has relied on the services of two local trading companies to implement the Nescafé Plan: *Cafés y Semillas de México* (Coffee and Seeds of Mexico [CASEMEX]), and *Exportadora de Granos y Oleaginosas del Sureste* (Exporter of Grains and Oilseeds of the Southeast [EGOS]). These companies grow plantlets for Nestlé in their nurseries, provide inputs, and receive coffee in their collection centres located on the outskirts of Tapachula (the largest city of Soconusco) or through local traders. Of the 82 farmers interviewed, 26 sell to Nestlé through CASEMEX or EGOS.

In contrast to Nestlé, coffee farmer organizations[8] only receive high-quality coffee, prioritizing arabica, and fostering cultivation of traditional varieties (such as bourbon and typica). These organizations require that farmers implement agroecology practices and produce organically. They tend to be stricter than other channels regarding percentage of defects allowed; for instance, while Nestlé allows 18 per cent rate of defects, farmer organizations only permit 16 per cent. This channel collects and processes coffee from small farmers and provides them with seedlings, technical assistance, loans, and other types of economic support such as social security. It pays a high price to farmers; however, payment is provided over the course of several months. Moreover, new farmers who do not produce organically must enter a 3-year transition period upon joining the organization, during which they are paid less than that paid to organic farmers.

Three principal farmer organizations were identified in the region. The *Centro de Agroecología San Francisco de Asís* (Saint Francis of Assisi Agroecology Centre [CASFA]), the *Grupo de Asesores de Producción Orgánica y Sustentable* (Organic and Sustainable Production Advisory Group [GRAPOS]), and *Café Justo* (Fair Coffee). CASFA and GRAPOS have 3,200 and 3,500 farmer members, respectively. Both have collection and processing centres in Tapachula and organic certifications, including Fairtrade, UTZ, USDA Organic, JAS, and *Orgánico SAGARPA México*. CASFA exports mainly to the United States and GRAPOS principally sells to Starbucks. In contrast, *Café Justo* only has 40 farmer members; it receives coffee in the town of Salvador Urbina (located 40 kilometres from Tapachula) and roasts it in the city of Agua Prieta (in the northern state of Sonora). While *Café Justo* lacks organic certification, it has direct contact with Presbyterian churches in the United States to which it sells its coffee. Only five of the 82 farmers interviewed sell to one of these three organizations.

Local buyers, known as *coyotes*, purchase arabica and robusta to sell to large companies including Nestlé, *Agroindustrias Unidas de México* (United Agroindustries of

Mexico; from ECOM group), and *Exportadora de Café California* (California Coffee Exporter; from Neumann Group). In contrast to Nestlé and farmer organizations, which demand that coffee comply with certain quality standards, local buyers purchase coffee regardless of its condition (although some expect it to be dry). They do not provide inputs such as plants or fertilizer to farmers, although some offer loans. While they purchase coffee from any type of farmer, and some pay upon reception, local buyers are notorious for their unfair practices, including paying very low prices, using scales which are not properly calibrated, and failing to use specialized equipment to measure the quality of coffee. For example, some buyers bite a coffee bean to test whether it is dry. Of the 82 farmers interviewed, 44 sell to local buyers.

Finally, through direct marketing farmers may sell roasted coffee, often packaged under their own brand name, to local and regional markets. Arabica is the principal species that farmers sell through direct marketing, including both traditional and improved varieties. While some farmers who market directly produce arabica according to organic practices, none of those interviewed are organically certified. Those farmers who market directly receive much higher returns than those obtained from Nestlé, farmer organizations, and local buyers; however, obtaining access to this market requires that farmers have relatively high amounts of capital to roast and grind their coffee, and they must wait a long time to receive payment. Of the 82 farmers interviewed, seven have access to high-value direct markets. Table 1 presents the principal characteristics of each marketing channel.

Aside from mapping different marketing channels, we classified eight farmers who receive public subsidies (*Sembrando Vida* or *Producción para el Bienestar*) within Bernstein's categories (emergent capitalist farmers, petty commodity farmers, or semi-proletarians) and carried out in-depth case studies of these farmers. While Table 2 shows the means of production of these farmers, the following section discusses interactions between these farmers and the different marketing channels.

Table 1. Coffee marketing channels in Soconusco and their principal characteristics.

Channel	Type of farmer	Species and varieties	Quality standards	Services provided	Payment	#
Nestlé	Any	Improved robusta	Percentage of yield, moisture, and defects; sustainable practices (4C)	Agricultural supplies and technical assistance	Lower than cooperatives but higher than local buyers; immediate payment	26
Farmer orgs.	Small-scale	Traditional varieties of arabica	Certified organic coffee with a certain percentage of yield, moisture, and defects	Processing coffee; sometimes agricultural supplies and technical assistance	High payment over the course of several months	5
Local buyers	Any	Any species, any variety	Generally, no quality standards	Some provide loans	Low payment	44
Direct marketing	Any	Arabica, traditional and improved varieties	Roasted and/or packaged coffee without certification	Not applicable	High payment, not immediately	7
				Total farmers interviewed		82

Table 2. Coffee farmers selected for in-depth case studies and their means of production.

Bernstein's social class	Farmer[a]	Means of production
Emergent capitalist farmers	Elías	• Owns 20 hectares • Hires 26 workers; 6 year-round and 20 seasonal • Also runs a transportation business.
	Heriberto	• Owns 10 hectares • Tends his land with family labour, 5 year-round workers, and 10 seasonal families • Purchased a coffee roaster with public subsidies • Also collects coffee to sell to CASEMEX and EGOS.
	César	• Owns 20 hectares • Tends his land with family labour, 3 permanent workers, and 15 seasonal workers • Purchased a coffee roaster with his savings and runs a coffee roasting business in his town.
Petty commodity producers	Gonzalo	• Owns 6.5 hectares • Tends his land with 1 family hired year-round • Owns a small coffee shop.
	Fernando	• Owns 3 hectares • Tends his land with 6 family members, and hires a worker to dry the coffee
	Alejandro	• Owns 3 hectares • Tends his land with 3 seasonal workers
Semi-proletarians	Manuel	• Owns 1 hectare • Tends his land with family labour • Works for other local farmers.
	Orlando	• Owns 1 hectare • Uses only family labour • Works full-time as a watchman in a coffee cooperative.

[a]Names of all farmers were changed to maintain anonymity.

Interactions between different types of farmers and marketing options

We identified the following factors which contribute to shaping the *terms* or *conditions* by which farmers are incorporated into the market: coffee species and varieties, altitude, product quality, price received, payment time, transportation, crop diseases, labour relations, provision of supplies (such as seedlings), and services (such as technical assistance and loans). This section discusses how these factors come into play in determining how emergent capitalist farmers, petty commodity producers, and semi-proletarian farmers interact with different marketing options. We also provide a qualitative assessment of favourable versus disadvantageous conditions of incorporation based on these interactions.

Nestlé

Nestlé is the principal robusta buyer in Soconusco. Although any type of farmer may participate in the Nescafé Plan and obtain access to Nestlé's services, we found that capitalist farmers have access to more benefits than do other farmers. This is illustrated by contrasting two farmers who live in a low-altitude town and participate in the Nescafé Plan: Fernando and Elías.

Fernando is a petty commodity producer with 3 hectares of robusta who lives in Carrillo Puerto, located at an altitude of 500 metres. During fieldwork, he informed us that he was quite pleased with the Nescafé Plan because the seedlings he received were much more productive and more drought-resistant than the traditional robusta he formerly cultivated. He commented that Nestlé's technical assistance had helped him increase

his yield, and that the sacks and shade cloths he received were useful. However, despite the benefits reported for the Nescafé Plan, he was concerned with the low price the company paid for coffee. At the time of the interview (December 2018), the price paid per kilo of robusta was $17 *pesos* (~$0.88 dollars), while 2 years earlier it had been $26 *pesos* (~$1.35 dollars). Furthermore, although he appreciated the 4C premium, he commented that it provided little additional income.

Similar to Fernando, Elías, a capitalist farmer with 20 hectares of coffee who also lives in Carrillo Puerto, spoke of the benefits about the Nescafé Plan, and also manifested concerns about the price the company paid for coffee. Regarding the benefits, he stated that he was very grateful to Nestlé because the plants he received had allowed him to increase his annual yield from 2–3 tons to 5–7 tons. He explained that this was a result of Nestlé's plants generating higher yields, but also that since Nestlé's plants are smaller than traditional robusta, he was able to increase their density from 700 to 1,200 plants per hectare. In addition, Elías mentioned that since he began to cultivate Nestlé's plants, his percentage of yield increased from 58 per cent to 62 per cent, and since Nestlé requires 60 per cent, he received the market price, without penalties. Elías was pleased that farmers are producing in a more sustainable manner as a result of the 4C certification. However, despite these benefits, Elías criticized that the company was 'failing' farmers with the low payment it provided, expressing the following:

> I'm very grateful to Nestlé as it helped us become aware of two things: that we can produce more in the same amount of land and also increase the quality of the product. This has really benefited us. But in terms of Nestlé's pay, the company is failing us because the price of coffee only is decreasing. The company justifies that it follows the price of coffee on the stock market, but the final price of its products, such as Nescafé o Nescafé Dolca, does not follow the stock market but rather the company's convenience. (Elías, personal communication, 16 May 2019)

Fernando and Elías reported certain similarities regarding their conditions of incorporation into the Nescafé Plan (useful supplies and services, but low payment); however, we found that Elías perceived greater benefits than Fernando. For instance, as Elías was one of the first farmers to join the Nescafé Plan in Soconusco, and as he is one of the region's most productive farmers, Nescafé appointed him as a leader of a group of farmers who continually receive services from Nestlé, including technical assistance and provision of plants, as well as lower-priced fertilizer (2/3 of the market price), on credit. Furthermore, as Elías produces very high volumes of coffee, he obtains a greater income from the 4C certification than does Fernando.

These cases indicate that although farmers incorporated into this marketing channel produce a species considered to be of low quality and receive a lower price than that paid for arabica, they have access to plants that allow them to increase their yield and minimize coffee leaf rust. They also indicate that while Nestlé provides plants and technical assistance to all type of farmers, capitalist farmers receive special treatment from Nestlé (the capitalist farmer obtained inexpensive fertilizer and Nestlé appointed him as a leader of a farmers' group, thereby providing him with prestige). Thus, these findings illustrate that capitalist farmers are provided with more advantageous conditions of incorporation into the market than are other farmers.

Farmer organizations

Farmer organizations are a marketing channel characterized by producing high-quality coffee according to organic methods. Although they focus their attention on impoverished small-scale farmers, we found that due to their requirements, semi-proletarians tend to be excluded from this market. This is illustrated by comparing the relationship between Alejandro and Orlando from Salvador Urbina (altitude of 600 metres) with *Café Justo*, the cooperative that sells organic coffee to Presbyterian churches in the United States.

Alejandro is a petty commodity producer with 3 hectares of coffee. Although many farmers of Salvador Urbina have transitioned from arabica to robusta due to coffee leaf rust as well as the high labour requirements of arabica, Alejandro uses most of his land (2 of his 3 hectares) to produce arabica. He mentioned that he continues to cultivate organic arabica because he is able to sell it to *Café Justo* for $70 *pesos* (~$3.63 dollars) per kilo, higher than the $40–$50 *pesos* (~$2.07–$2.59 dollars) paid by other farmer organizations for the same coffee, and much higher than the $20 *pesos* (~$1.04 dollars) per kilo paid by local buyers. While he admitted that cultivating according to organic methods is labour-intensive and that at times he struggles to cover his cost of labour (three to six workers depending on the time of year), he continues to be a member of the organization given the high price he is paid.

Alejandro's case highly contrasts with that of Orlando, a semi-proletarian cultivating 1 hectare principally using his own labour, with the help of some family members during the harvest season. Many years ago, he cultivated arabica, but since the appearance of coffee rust, he decided to introduce robusta. He also mentioned that he produces 'conventionally', with agrochemicals, as he is unable to provide the labour required for organic production. As does Alejandro, he works with *Café Justo,* but as a hired watchman. He commented that he does not sell to *Café Justo* not only because he does not produce arabica and does not produce organically, but also because he cannot wait to receive his payment. He stated:

> In Café Justo payment is split into months. This isn't convenient for me because I need to take care of my family so they have what they need. I have a son in school, and I need to pay for his tuition. What if I don't get the payment from Café Justo? I produce very little coffee, 1 ton or less, and the little I harvest, I sell it to local buyers because they pay right away. (Orlando, personal communication, 10 August 2019)

These cases show that both farmers live at an altitude where arabica and robusta may be cultivated. The petty commodity producer decided to produce organic arabica and participate in a more profitable market – *Café Justo* – as he is able to cope with the additional labour required for organic production and wait months to receive his payment. Meanwhile, the semi-proletarian farmer is unable to meet the requirements of small farmer organizations and decides to cultivate a low-quality coffee – robusta – and sell through the marketing channel that offers the lowest pay – local buyers. Thus, these cases indicate that the semi-proletarian farmer's conditions of incorporation into the market appear to be less advantageous than those of the petty commodity producer.

Local buyers

Local buyers who collect arabica and robusta from different communities are much less strict regarding the quality of coffee than the other marketing channels, although they pay the lowest of all the channels. We found that capitalist farmers and petty commodity producers attempt to avoid this channel; however, for semi-proletarians local buyers appear to be the principal or the sole marketing option. This situation is illustrated by comparing the conditions of incorporation into the market of Gonzalo and Manuel.

Gonzalo is a petty commodity producer with 6.5 hectares who lives in Unión Juárez (located at an altitude of 1,300 metres), which was highly affected by coffee leaf rust in 2012–2013. Although many farmers of Unión Juárez transitioned from arabica to robusta due to coffee rust, Gonzalo preferred to maintain arabica and cultivate organically to sell his coffee at a coffee shop he owns. He mentioned that cultivating arabica organically requires a great deal of labour and that he had to be patient to make profits at his coffee shop; nonetheless, adding value to his product was worthwhile as he obtained a higher income. He clarified that he only occasionally sold to local buyers (as do most local farmers), if he is in urgent need of cash, as he considers that local buyers 'devalue farmers' labour' by paying them low prices.

Gonzalo's situation highly contrasts with that of Manuel, a semi-proletarian who owns 1 hectare and lives in El Platanar, located 1,300 metres in altitude and also severely affected by coffee rust in 2012–2013. In contrast to Gonzalo, Manuel decided to replace his arabica with robusta. He mentioned that when coffee rust spread, he lacked the means to combat the fungus and many of his plants died. Cultivating arabica required too much labour and the price paid for arabica was not compensating the labour invested. He preferred to cultivate robusta despite the low price it received. However, he observed that his yields were quite low in comparison to those of farmers at lower altitudes; in 2019 he harvested 750 kilos while some farmers from lower altitudes harvested 4 to 6 tons. He also mentioned that although Nestlé purchases robusta, the company did not offer plants or other agricultural supplies to farmers of high altitudes.

In contrast to Gonzalo who preferred not to sell to the local buyer, Manuel sold all his production to the local buyer. Manuel informed that he knew CASEMEX and EGOS offered a higher price than the local buyer, but he would have to take his coffee to their collection centres which were located in Tapachula, 40 kilometres from his place; this would involve an unreasonable cost. He added that he did not sell to these companies because his coffee did not meet Nestlé's quality standards (percentage of yield, moisture, and defects). For these reasons, Manuel continued to sell to local buyers, as he expressed:

> If we go to Tapachula, the collection centres will tell us that the coffee does not meet moisture and defect levels, and since I need to pay for transportation, I end up losing out. I sell my coffee in the community because the local buyer will buy my coffee in whatever condition it's in, but I know he won't offer a good price. Local traders have absorbed us, we're caught in the middle, and we can't get out. (Manuel, personal communication, 17 January 2020)

These cases indicate that different types of farmers sell to local buyers and that all are aware that this marketing channel offers very low prices. However, these contrast the different ways in which farmers of different social classes relate to local buyers. As the petty commodity producer has a more profitable marketing option with his coffee shop, the local buyer is his last option. By contrast, the local buyer is the semi-

proletarian's only option as he does not produce high-quality coffee because he lacks the labour required to cultivate arabica, and cannot meet the transportation cost involved in accessing higher-paying marketing options. Hence, while both farmers interact with local buyers, the semi-proletarian's conditions of incorporation into this channel are much more disadvantageous than those of the petty commodity producer.

Direct marketing

Some Soconusco farmers process their coffee and sell it roasted (sometimes under their own brand name) directly to local supermarkets, restaurants, and coffee shops, as well as to the Tapachula bus terminal and airport. Additionally, some farmers send roasted coffee to other regions of Mexico. Our data reveals that while any farmer may participate in these markets, principally capitalist farmers and only occasionally petty commodity producers (see the case of Gonzalo above) manage to sell their coffee directly to such markets. The way in which farmers incorporate themselves into these profitable markers is illustrated by two capitalist farmers, César and Heriberto.

César cultivates 20 hectares of arabica coffee in the town of Unión Juárez mentioned above, located at an altitude of 1,300 metres. He indicated that he formerly sold to local traders, but that he had not been paid enough to cover costs: '*Producing a quintal of arabica cost me $700 pesos* [~$36 dollars]*, but local buyers were paying $300 pesos* [~$16 dollars]'.[9] Given this low price, he decided to use savings to purchase a coffee roaster to add value to his product, and established direct contact with buyers from the states of Jalisco and Guanajuato (in central Mexico) to sell roasted coffee. Despite the additional labour required for cultivating arabica, he continues to produce the traditional variety bourbon, as he hires enough labourers to do so, and his clients expect him to produce high-quality coffee. He commented that as a result of coffee rust, many nearby farmers began to cultivate robusta and that many at lower altitudes were actively participating in the Nescafé Plan. However, even if he were to be offered robusta plants free of charge, he would prefer to produce arabica and sell directly to buyers:

> Farmers at lower altitudes are getting many benefits from Nestlé because of the free plants they're receiving. But Nestlé is a marketing channel that doesn't work for me. I process my coffee and deliver it directly to my clients. If I earn an extra peso, that peso is for me and not for anybody else. My dad used to say, "it's better to be the head of a mouse than the tail of a lion". In comparison to Nestlé, which is a monster, a transnational that makes millions, I'm a mouse, but I'm the head of the mouse. (César, personal communication, 10 November 2019)

Heriberto is a capitalist farmer who lives in Faja de Oro, located at an altitude of approximately 700 metres. He owns 10 hectares, in which he plants both arabica and robusta, at different altitudes. Of the two species he cultivates, he considers arabica to be the most important as he uses it to produce his own brand of coffee, *Montaña Azul* (Blue Mountain), which he sells roasted, whole or ground, to restaurants, coffee shops, and the Tapachula bus terminal and airport. He says that producing coffee without adding value is not profitable: '*If I sold arabica to the local buyer, I might get $29 pesos per kilo* [~1.50 dollars]*, but since I process it into ground coffee, I get $160 pesos* [~$8.30 dollars] *per kilo*'. Meanwhile, he sells his robusta coffee to Nestlé, and

although this species is not his priority, he manages to obtain additional income from robusta by collecting it from other farmers to deliver it to CASEMEX and EGOS. For each kilo he collects, he keeps $0.50–$0.70 *pesos* (~$0.03–$0.04 dollars). Like most farmers in the area, Heriberto comments that he was affected by low coffee prices and coffee rust. Nonetheless, despite these challenges, he is able to provide year-round employment to five people, as well as to ten additional families during the harvest. Furthermore, despite the low prices of coffee and coffee leaf rust, he has been able to expand his business; at the time of the interview, he was considering acquiring a freeze-drying machine to process his robusta into soluble coffee.

These cases indicate that directly accessing high-value markets provides high returns to farmers. However, they must have the capacity to produce high-quality coffee, mobilize large numbers of labourers, purchase processing equipment, and wait long periods before receiving payment. Of the 82 farmers interviewed, only seven access such markets, five of whom are capitalist farmers. Table 3 summarizes the findings for all marketing channels.

Table 3. Summary of interactions between different types of coffee farmers and marketing channels.

Marketing channel	Farmers analysed	Conditions of incorporation into the market	Assessment
Nestlé	Petty commodity producer (Fernando) and capitalist farmer (Elías)	Both cultivate robusta, considered to be of low quality, and are therefore paid less than for arabica. However, the inputs and services provided by Nestlé have allowed them to increase their income and prevent crop disease.	The capitalist farmer receives special treatment and thus has an advantageous condition of incorporation.
Farmer orgs.	Petty commodity producer (Alejandro) and semi-proletarian (Orlando)	Both cultivate at an altitude suitable for robusta and arabica. The petty commodity producer cultivates arabica, has access to more profitable markets, has the labour to produce organically and control rust, and can wait to be paid. The semi-proletarian cannot meet the requirements of farmer organizations and requires cash immediately, and therefore cultivates robusta and sells through a less advantageous marketing channel (the local buyer).	The semi-proletarian has a less favourable condition of incorporation than the petty commodity producer.
Local buyers	Semi-proletarian (Manuel) and petty commodity producer (Gonzalo)	Both sell to a local buyer. However, as the petty commodity producer sells arabica at his own coffee shop, he uses the local buyer as a last resort. He is able to hire the labour to produce arabica and can wait to be paid. For the semi-proletarian, who produces low-quality coffee (robusta) and lacks the income to cover transportation to reach more profitable markets, the local buyer is his first option.	The semi-proletarian has a less favourable condition than the petty commodity producer.
Direct marketing	Two capitalist farmers (César and Heriberto)	They have access to highly profitable markets because they have the labour and capital to produce and process high-quality coffee, and can wait to receive payment.	Capitalist farmers have a favourable position.

Discussion

This paper mentioned that many development agencies assume that smallholders will be benefitted by *greater incorporation* into the market (FAO 2020). However, some scholars of the global value chain approach have warned that farmers may be *adversely incorporated*, and that rather than aiming for *greater incorporation*, development interventions should address the *terms* or *conditions* by which farmers are incorporated into the market (Bolwig et al. 2010; Ponte 2008). We complemented the global value chain approach by incorporating a political economy perspective regarding social differentiation.

Our analysis of four marketing channels – Nestlé, farmer organizations, local buyers, and direct marketing – indicated that farmers' experience with these channels varied according to their social class – capitalist farmers, petty commodity producers, and semi-proletarians (see Table 3 for summary). We argue that farmers relate differently to different marketing channels and that to illustrate this, is necessary to carry out an empirical study that rather than focusing on the mechanisms of the value chain at the global level, addresses: (1) the particular workings of markets at the local level (quality standards and payment and services offered); (2) distribution and control over farmers' means of production (land and labour); and (3) the region's specific environmental conditions (altitude, coffee species and varieties, and crop diseases).

Nevertheless, the findings of our case study lead to a new theoretical and practical conundrum. Rather than concluding that any specific social category of farmers is typically linked to a specific type of marketing channel, we found that more than one category of farmers participates in each of the various marketing channels. Furthermore, we may not conclude that a given social class does not relate to a particular marketing channel; for instance, while we found semi-proletarians are less likely to establish direct marketing than capitalist farmers (who tend to have more options which allow them to bypass local buyers), this is not a hard and fast rule. Hence, while the categories employed here provide a more dynamic understanding of interactions between local farmers and marketing channels, they should not be employed in a reductionist sense.

The second issue in our discussion concerns interventions by the Mexican state to support smallholder farmers. First, we argue that classifying coffee producers based on the size of their farm, as commonly carried out by the Mexican state (and many development organizations), fails to consider multiple differences among farmers. We mentioned that *Sembrando Vida* targets farmers with 2.5–20 hectares, and *Producción para el Bienestar* targets those with less than 20 hectares, with no lower limit. We then presented the cases of eight farmers enrolled in one of these two programmes (Elías and César with 20 hectares each; Heriberto with 10; Gonzalo with 6.5; Fernando and Alejandro with 3; and Manuel and Orlando with 1 hectare each). Our data showed that despite the fact that the state relates to these farmers based on a single factor (size of landholding), their control over their means of production (land and labour) and the way in which these farmers relate to the market vary significantly. Some farmers not only make a living from farming but also invest in other aspects of the coffee value chain, as is the case of capitalist farmers and petty commodity producers; while others – semi-proletarians – must sell their labour to sustain themselves and their families. Furthermore, we observe that the target population of both programmes contradicts their pro-poor discourse. As *Sembrando Vida* and *Producción para el Bienestar* target farmers with up to

20 hectares, they end up supporting farmers who already enjoy *advantageous* conditions of incorporation into markets. However, as *Sembrando Vida* has a minimum requirement of 2.5 hectares, it ends up excluding impoverished farmers from a subsidy that might significantly improve their livelihoods.

Finally, we argue that the manner by which the Mexican state attempts to incorporate small farmers into the market is problematic as it is principally focused on one type of marketing channel – the organic market. Our analysis showed that in Soconusco, farmers encounter multiple marketing options (Nestlé, farmer organizations, local buyers, and direct marketing), and while we found that organic production is attractive to some farmers, we also found that for many farmers, producing organically was not their principal strategy. For instance, robusta farmers of lower altitudes who sell to Nestlé were happy to cultivate in a more sustainable manner but did not consider becoming organic, and many arabica farmers at higher altitudes had lost interest in organic cultivation as coffee leaf rust is difficult to control without pesticides. Given that not every type of farmer is able to fulfil the requirements of the organic market, we urge development interventions to shift from a paradigm aimed at incorporating farmers into a *predefined* market to one that considers the workings of multiple marketing channels and the varied ways in which farmers of different social classes interact with these channels.

Notes

1. In addition, the Mexican state classifies *medium farmers* as those owning 5–20 hectares, principally relying on hired labour, with access to resources, and producing for both family consumption and the market (DOF 2020a); and *large farmers* as those owning more than 20 hectares, having access to resources, and producing for the market, including for export (DOF 2020c). The Mexican state principally provides support to small and medium farmers.
2. Furthermore, we consider that the historically used classification of large landowners (*finqueros*) and the *ejido* sector in Mexico tends to neglect the differentiated nature of coffee farmers in and outside *ejidos*.
3. These concepts are not meant to be exhaustive with respect to all farmers' practices, nor is it assumed that farmers remain permanently within one category. Rather, these concepts mainly serve the heuristic purpose of indicating how structural differences among farmers lead them to interact differently with specific marketing channels.
4. This study provides an initial step to exploring the relationship between social class and marketing alternatives on a local level. Future research could analyse the role of intersectionality (gender, ethnicity, etc.; Quiñones-Ruiz and Giraldo-Liévano 2022) in shaping the terms by which farmers are incorporated into markets.
5. In this paper, we refer to kilos as a unit measurement for coffee, except when referring to the international coffee prices, given that the ICO uses pounds.
6. We consider low altitudes to be below 700 metres, mid-range altitudes 700–900 metres, and high altitudes above 900 metres.
7. Soconusco farmers refer to *traditional varieties* as those varieties of either arabica or robusta that have been planted for many years, and *improved varieties* as those that were modified to improve certain attributes, such as yield and resistance to coffee rust.
8. In Soconusco, we identified different types of farmer organizations. Some are characterized by operating under high levels of clientelism, while others are characterized by supporting farmers to produce organic coffee and reach rewarding markets. This study focuses on the latter type of organizations, identifying mechanisms that contribute to improving the conditions by which farmers are incorporated into the market.
9. One quintal is equivalent to 57.5 kilos of arabica parchment.

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