

# Women's empowerment in the coffee production sector in the High Mountains Region, Veracruz, Mexico

Gasperín-García, Erika María<sup>1</sup>; Pacheco-Reyes, Elizabeth<sup>2</sup>; Vilaboa-Arroniz, Julio<sup>3</sup>; Zetina-Córdoba, Pedro<sup>1</sup>; Mota-Aparicio, Arturo<sup>2</sup>

<sup>1</sup> Colegio de Postgraduados.

<sup>2</sup> Universidad Politécnica de Huatusco.

<sup>3</sup> Centro de Bachillerato Tecnológico Agropecuario 255.

\* Correspondence: julio.vilaboa@cbta255.edu.mx

## ABSTRACT

**Objective:** To characterize the profile and empowerment level of women in the coffee (*Coffea arabica* L.) production sector in the High Mountains Region, Veracruz, Mexico.

**Design/methodology:** The assessment considered two scenarios: women coffee production owners (MDP) and coffee producers' wives (EFP). The study was conducted in five municipalities with a "non-probabilistic" sample. Eighty questionnaires with a Likert-type scale were applied in the municipalities of Coatepec, Huatusco, Sochiapa, Tlaltetela, and Zentla, Veracruz.

**Results:** The age of women in both profiles ranged between 41 and 60 years. Marital status for MDP is 20% single and 23% divorced, while 80% of the EFP are married. Education level among MDP is higher than among EFP. Most MDP have two or more jobs (78%), while EFP are mostly housewives (68%). Most MDP (65%) presented a high empowerment level and 35% a medium level. Among EFP, 45% had a high empowerment level and 55% a medium level.

**Limitations and implications:** Survey on how male producers perceive women's participation and empowerment within the coffee sector.

**Conclusion:** Empowerment level is higher among women production owners—since this allows them to show leadership and autonomy in decision-making— than among women who depend economically on a male producer. This dependency limits the role women play in decision-making.

**Key words:** Coffee, Likert scale, Education, Self-esteem, Leadership.

**Citation:** Gasperín-García, E. M., Pacheco-Reyes, E., Villaboa-Arroniz, J., Zetina-Córdoba, P., & Mota-Aparicio, A. (2022). Women's empowerment in the coffee production sector in the High Mountains Region, Veracruz, Mexico. *Agro Productividad*. <https://doi.org/10.32854/agrop.v15i2.1973>

**Editor in Chief:** Dr. Jorge Cadena Iñiguez

**Received:** February 23, 2021.

**Accepted:** January 3, 2022.

**Published on-line:** March 3, 2022.

*Agro Productividad*, 15(2). February, 2022. pp: 9-16.

This work is licensed under a Creative Commons Attribution-Non-Commercial 4.0 International license.



## INTRODUCTION

Women's empowerment has been a relevant topic of interest for public policy design and constitutes *per se* a field of study for the benefit of women. It is also important in the international arena, as stated by the United Nations (UN) Sustainable Development Agenda 2015-2030, the International Fund for Agricultural Development (IFAD), and the World Food Programme (WFP). In the case of rural women, empowerment has been posed as a strategy to break the cycles of poverty and inequality among men and women (Naciones Unidas, 2018).

As is the case with other concepts, women's empowerment depends on its contextualization and conceptualization. However, despite their diversity, all these concepts agree that empowerment is a social process that occurs at individual and collective levels, and involves management abilities, awareness, and self-realization for the comprehensive development of the female gender (Rowlands, 1977; Schuler, 1997; Denman *et al.*, 1997; Meza *et al.*, 2002).

For the purposes of our research, we used the concept as described by Rowlands (1997), who highlights the three powers of the female gender: “power over, power to, and power with,” in relation to decision-making and the fulfilment of personal interests, as well as individual and collective positioning. Consequently, women's empowerment stands for the importance of autonomy, participation, self-esteem, and conditions for equal opportunities. These tools enable women to improve their social situation in life, which in turn will allow them to exercise control over their decisions, in addition to granting them financial, behavioral, and family security (Marín and Okali, 2008). All this can be conceptualized as the interrelation of processes for the comprehensive development of women, based on positive change through the advancement of their attitudes, skills, self-esteem, and confidence.

Coffee growing is an activity of socioeconomic relevance. In Mexico —the ninth largest producer of coffee worldwide— coffee growing is present in 14 states, involves more than 500,000 producers and 30 ethnic groups (original peoples), and takes up over 700,000 hectares. It is a strategic activity in the agrifood sector of the State of Veracruz —the second largest national producer, with 139,000 hectares and 42,000 growers. The following municipalities stand out in this agribusiness: Misantla, Tlapacoyan, Coatepec, Coscomatepec, Zentla, Huatusco, Ixhuatlán del Café, Zongolica, Tezonapa, Córdoba, and Sierra de Santa Marta (Los Tuxtlas Region) (Sánchez Hernández *et al.*, 2019; Vargas-Arroyave *et al.*, 2020).

In the coffee growing sector of Veracruz, the role of women is pivotal insofar as they participate in the horizontal production-distribution-consumption cycle, either as owners of coffee plantations or as producers' wives who take part in productive activities (SADER, 2018; Vargas-Arroyave *et al.*, 2020). Nevertheless, some stereotypes have imposed the idea of this activity as exclusively male, thus minimizing the efforts of women (Biermayr-Jenzano, 2016). Nava and Hernández (2017) consider that women's participation in this sector is higher than in other agrifood chains, both in agriculture and in livestock production; hence the importance of studying their participation in the sector, either direct (as coffee production owners) or indirect (contributing to production by being in charge of domestic chores and family care). Our goal was to characterize the profile and empowerment level of women coffee growers in the mountainous area of the State of Veracruz, Mexico.

## **MATERIALS AND METHOD**

The High Mountains Region of the State of Veracruz, Mexico, comprises an area of 6,053 km<sup>2</sup> (8.4% of the state territory). It adjoins the Capital Region (N), the Sotavento Region (E), the State of Puebla (W), the Papaloapan Region (SE), and the State of Oaxaca (S). It is the most diverse region in terms of climate, fauna, and flora, which vary according

to the altitude of its 57 municipalities (600-3,200 masl) (Gobierno del Estado de Veracruz, 2018). This study was conducted in five representative municipalities of the coffee sector in social, economic, and productive terms, as well as in terms of cultivated area and population involved in the activity: Sochiapa, Tlaltetela, and Zentla (small holders), and Coatepec and Huatusco (commercial) (PRONATURA, 2017; Gobierno del Estado, 2018).

We considered a non-probabilistic sample using a snowball sampling method (Alloati, 2014) for women coffee production owners (MDP=40) and coffee producers' wives (EFP=40). During the second half of 2020, a 25-entry questionnaire with a 0.94 reliability level was designed and applied, based on Cronbach's  $\alpha$  (alpha) coefficient for Likert scales (Carmines and Zeller, 1979; Quero Virla, 1997). Six dimensions were taken into account: family context; self-esteem; autonomy; self-efficacy; participation and equal opportunities; and inclusion and nondiscrimination. Seventeen variables were also taken into account: capacity for success; participation in projects; successful performance; believing in one's own abilities; decision-making; important decisions; decision-making power; activity coordination; successful activities; equal rights; equal remuneration; income; equal opportunities; roles; leadership; participation in production; and participation in sales. An Excel Microsoft database was created and the data was analyzed with the STATISTICA version 7.0 software to obtain measures of central tendency and descriptive statistics.

## RESULTS AND DISCUSSION

### Characterization of women in the coffee production sector

According to our results (Table 1), the age of women in both profiles ranged between 41 and 60 years (38% MDP and 50% EFP); they are therefore considered middle-aged. In this respect, Hernández (2016) indicates that participation of 15- to 19-year-old women (young women) in the coffee harvest represents 40% of the their total participation. Later on (in the range of 20-39 years of age), their participation decreases to 20%, as a consequence of reproductive age and childcare. After 40 years of age, women's participation increases again. It is important to highlight the fact that women's participation in the coffee sector is higher than in other branches of the primary sector (such as livestock and corn), which are considered purely male activities (Candelaria *et al.*, 2011).

**Table 1.** Characterization of the coffee growing woman —Women Coffee Production Owners (MDP) and Coffee Producers' Wives (EFP)— in five municipalities of the High Mountains Region in Veracruz, Mexico.

Characterization	MDP	Representative percentage of questionnaires (%)	EFP	Representative percentage of questionnaires (%)
Age (years)	De 41-60	38	De 41-60	50
Number of occupations (number)	Two	78	One	68
Civil status	Married	45	Married	80
Scholarship	High school	30	Unfinished elementary school	28
Number of hectares planted (ha)	1-2	86	<1.	55

Source: self made.

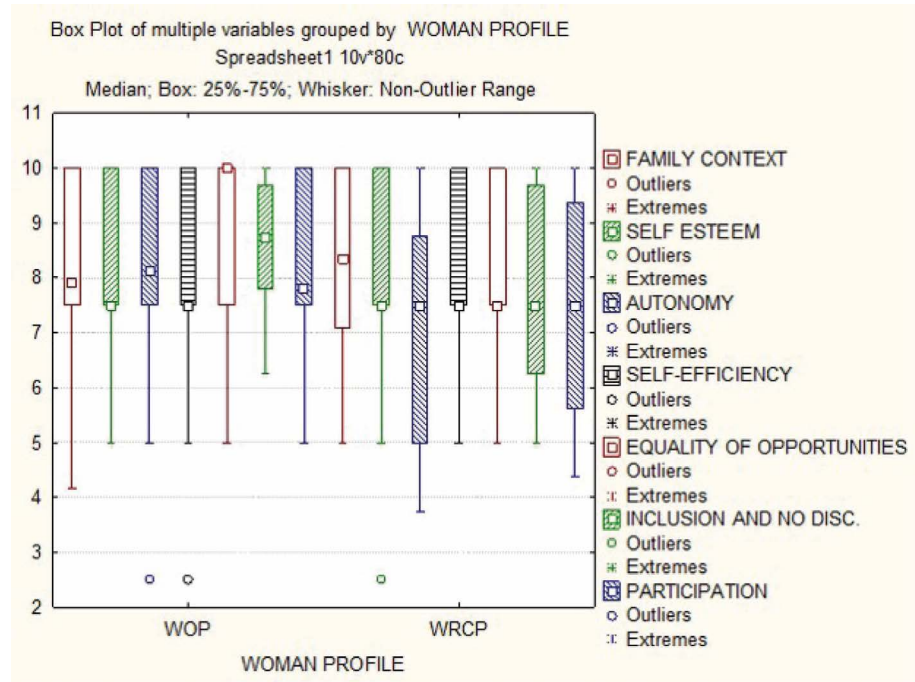
In both profiles, most women are married (45% MDP and 80% EFP) and some others live in domestic partnership (10% MDP y 10% EFP). Among MDP, 20% are single and 23% divorced. Data on the relation between leadership and age among women producers match the findings of López-Zepeda (2018). The education level among MDP is secondary school (30%), complete elementary school (20%), and incomplete elementary school (25%). Meanwhile, the education level among EFP is incomplete elementary school (28%), complete elementary school (23%), and secondary school and college (18%). This reflects an overall low education level, which is consistent with the data provided for the rural sector by the Secretaría de Agricultura y Desarrollo Rural (SADER, 2018) (Nava and Hernández, 2017).

Regarding the number of jobs held in each profile, 78% of MDP have two jobs, among which coffee grower stands out, together with housekeeper and professional; in the EFP profile, 68% only has one job (housekeeper), while 30% has two jobs (professional, tradeswoman, or employee). These data are similar to those reported by Paz-Paredes (2017). In this respect, it is important to emphasize the role of women, because whether or not they are direct coffee producers, they carry out household-related and extra farm activities that contribute to the household economy.

The amount of cultivated hectares fluctuates between less than one (<1.0 ha), and one to two (1-2.0 ha), for 86% of the owners and 90% of the relatives (Lopez Morgado and Díaz Padilla, 2020). Similarly, according to Estado *et al.* (2010), there is no gender-related difference regarding productive capacity in agricultural tasks. Ejea (2009) mentions that smallholder coffee growers view their coffee crops as a saving mechanism and rely on other crops for their daily expenses.

Out of the six empowerment-related dimensions evaluated (Figure 1), autonomy (8.19), equal opportunities (8.69), inclusion and nondiscrimination (8.70), and participation (8.30) were the most important for MDP. The least important variable was family context (8.03). In this respect, some of the interviewees argued that their families have never motivated them at all and that their achievements have been entirely their own. The most important dimensions for EFP were family context (8.25) and self-efficacy (8.44), which shows an instinct to form family ties —since these women are more in contact with their families— and is consistent with the number of jobs (one: housekeeper, 68%). The least important dimensions were autonomy (7.28), equal opportunities (7.88), inclusion and nondiscrimination (7.92), and participation (7.50). The low participation of this group in the coffee production process and in decision-making is easy to understand, because these activities are left in charge of their husbands or relatives, which leaves women participation at a minimum. This is consistent with reports by Chablé *et al.* (2007) regarding proportionality between income and decision-making capacity among women. Likewise, Cárcamo *et al.* (2010) mention that women coffee production owners participate in decision-making within the organizations to which they belong, while wives participate in the production process only to a certain extent but are not taken into account for decision-making.

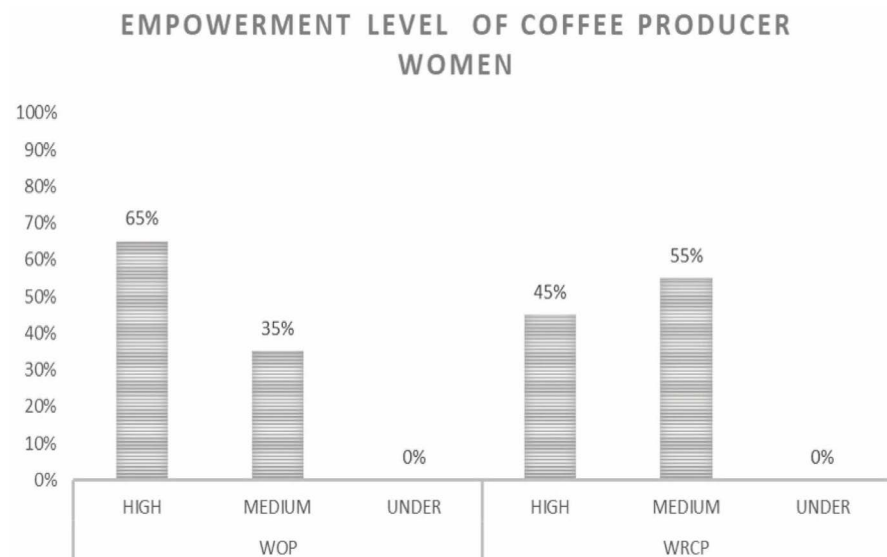
The results for each profile's level of empowerment are described below (Figure 2). In the case of MDP, 65% reached a high empowerment level, while 35% showed an intermediate level. Among EFP, 45% had a high empowerment level, while 55% had an intermediate



**Figure 1.** Assessment of empowerment level dimensions for Women Coffee Production Owners (MDP) and Producers’ Wives or Relatives (EEP) in five municipalities of the High Mountains Region, Veracruz. Source: Self-collected data.

level. Likewise, Vargas-Aroyave *et al.* (2020), among others, found that most women have a clear perception of leadership, high participation, and self-sufficiency.

According to FAO, when gender equality improves, rural women have more access to resources, services, and opportunities. Achieving empowerment not only for women, but



**Figure 2.** Empowerment level for Women Coffee Production Owners (MDP) and Producers’ Wives or Relatives (EEP) in five municipalities of the High Mountains Region, Veracruz. Source: self-collected data.



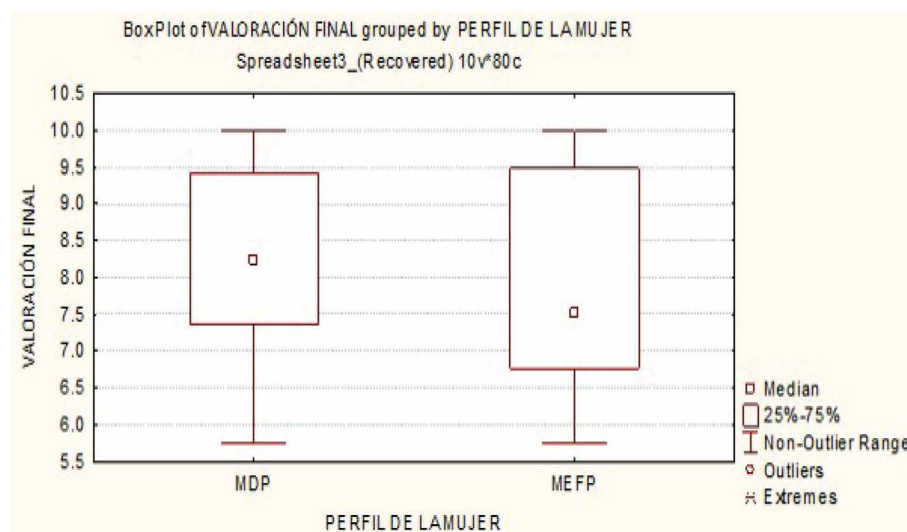
also for men and children, brings about better life conditions, socioeconomic benefits, and the strengthening of future generations (Development Bank, 2013).

Final data distributions are positively skewed for both cases, since 50% of results focus on data that fluctuate between  $6.7 \pm 10$ . For MDP, all variables have an 8.32 mean with data between  $5.57 \pm 10$ . Meanwhile, EFP have a mean of 7.91 with results of 6.7 (first quartile) and 9.4 (third quartile) (Figure 3).

Activities that more actively involve the wives or female relatives of small producers should be fostered, in order to take their ideas into consideration and allow them to have a direct impact on coffee cultivation; otherwise, the gender gap that is so frequently found in production systems will persist.

The right to land definitely empowers women, in contrast to those who are not owners. Empowerment implies strengthening confidence and self-esteem, as well as participating as a social group to improve life conditions. The development of rural women in economic activities strengthens their autonomy and gender equality, improves their family context, and expands development opportunities for their communities. However, achieving empowerment is an ongoing challenge for women in the rural sector, because it requires raising awareness on these topics among men, besides understanding that both men and women are complementary and not competitors.

It is important to design public policies that help to underpin and acknowledge those activities carried out by rural women in their social, productive, economic, and cultural role, in order to have an impact on and improve the situations and contexts in which they grow (become empowered) (Hernández and Nava, 2019). In addition, it is necessary to expand and further the research and studies about the role of women in other important chains of the agrifood sector in the State of Veracruz, Mexico.



**Figure 3:** Final empowerment level assessment for Women Coffee Production Owners (MDP) and Producers' Wives or Relatives (EFP) in five municipalities of the High Mountains Region, Veracruz. Source: Self-collected data.

## CONCLUSIONS

Women coffee producers in the studied regions reached higher empowerment levels than producers' wives. Ownership of production provides economic independence and security which strengthen aspects of leadership, self-management capacity, and participation in productive and socioeconomic activities. Economic dependence limits the decision-making capacity and the roles adopted within the household and the productive activities, which are frequently viewed as unpaid help. Nonetheless, both producer and non-producer women lag behind in basic prerogatives, such as education and income.

## REFERENCES

- Alloati, M. N. (2014). Una discusión sobre la técnica de bola de nieve a partir de la experiencia de investigación en migraciones internacionales. *IV Encuentro Latinoamericano de Metodología de Las Ciencias Sociales*. [http://www.memoria.fahce.unlp.edu.ar/trab\\_eventos/ev.8286/ev.8286.pdf](http://www.memoria.fahce.unlp.edu.ar/trab_eventos/ev.8286/ev.8286.pdf)
- Biermayr-Jenzano, P. (2016). Genero y sistemas agroalimentarios sostenibles. In *Fao*. <http://www.fao.org/3/a-i5724s.pdf>
- Candelaria Martínez, Bernardino, Ruiz Rosado, Octavio, Gallardo López, Felipe, Pérez Hernández, Ponciano, Martínez Becerra, Ángel, & Vargas Villamil, Luis. (2011). Aplicación de modelos de simulación en el estudio y planificación de la agricultura, una revisión. *Tropical and subtropical agroecosystems*, 14(3), 999-1010. Recuperado en 23 de febrero de 2021, de [http://www.scielo.org.mx/scielo.php?script=sci\\_arttext&pid=S1870-04622011000300004&lng=es&tlng=es](http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S1870-04622011000300004&lng=es&tlng=es).
- Cárcamo Toalá, Naima Jazíbi, Vázquez García, Verónica, Zapata Martelo, Emma, & Nazar Beutelspacher, Austreberta. (2010). Género, trabajo y organización: Mujeres cafetaleras de la Unión de Productores Orgánicos San Isidro Siltepec, Chiapas. *Estudios sociales (Hermosillo, Son.)*, 18(36), 155-176. Recuperado en 23 de febrero de 2021, de [http://www.scielo.org.mx/scielo.php?script=sci\\_arttext&pid=S0188-45572010000200007&lng=es&tlng=es](http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0188-45572010000200007&lng=es&tlng=es).
- Carmines, E. G., & Zeller, R. A. (1979). *Reliability and validity assessment*. Sage Publications, Inc. <https://academic.csuohio.edu/kneuendorf/c63111/C&ZSage.pdf>
- Chablé Can, E. M. S., García Gurri, F. D., Rosales Molina, D. O., & Schmook, B. (2007). Fuentes de ingreso y empoderamiento de las mujeres campesinas en el municipio de Calakmul, Campeche. *Política y Cultura*, 28, 71–95.
- Denman, C. A., Aranda, P., & Cornejo, V. E. (1997). Magdalena de León (compiladora) Poder y empoderamiento de las mujeres. *Religión y Sociedad*, 11(18), 189–197. <https://doi.org/10.22198/rys1999/11/769>
- Development Bank, A. (2013). *GENDER EQUALITY AND FOOD SECURITY Women's Empowerment as a Tool against Hunger*. [www.adb.org](http://www.adb.org)
- Ejea Mendoza, María Teresa. (2009). Café y cultura productiva en una región de Veracruz. *Nueva antropología*, 22(70), 33-56. Recuperado en 23 de febrero de 2021, de [http://www.scielo.org.mx/scielo.php?script=sci\\_arttext&pid=S0185-06362009000100003&lng=es&tlng=es](http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0185-06362009000100003&lng=es&tlng=es).
- Estado, E. L., De, M., Agricultura, L. A., & La, Y. (2010). *EL ESTADO MUNDIAL DE LA AGRICULTURA Y LA ALIMENTACIÓN*. <http://www.fao.org/catalog/inter-s.htm>
- Gobierno del Estado de Veracruz. 2018. Plan Veracruzano de Desarrollo 2019-2024. <http://www.veracruz.gob.mx/programadegobierno/2019/06/06/plan-veracruzano-de-desarrollo-2019-2024/>
- Hernández, M.I. & Nava, M.E. (2019). Capital social en organizaciones cafetaleras de dos regiones de la zona centro de Veracruz, México. *Sociedad y Ambiente* 21, DOI: <https://doi.org/10.31840/sya.v0i21.2045>
- Hernández Trujillo, J. M. (2016). Cortadores de café en México. El inframundo del trabajo decente. *Ra Ximhai*, 93–110. <https://doi.org/10.35197/rx.12.01.e1.2016.06.jh>
- Lopez Morgado, R., & Díaz Padilla, G. (2020). *Diagnóstico, productividad y ambiente en cafetales: estudios regionales y de caso* (C. de I. R. G. C. del INIFAP (ed.); Vol. 1).
- López Zepeda, A. G. (2018). Transformaciones en las relaciones de género-familiares y la agencia de campesinas indígenas cafetaleras en cooperativa. *Revista Punto Género*, 9, 40. <https://doi.org/10.5354/0719-0417.2018.50548>
- Marín, R. E. R., & Okali, C. (2008). Empoderamiento de las mujeres a través de su participación en proyectos productivos: Experiencias no exitosas. *Convergencia*, 15(46), 119–141.
- Meza Ojeda, A., Tuñón Pablos, E., Ramon Muñoz, D. E., & Kauffer Michel, E. (2002). Progresos y el empoderamiento de las mujeres: estudio de caso en Vista Hermosa, Chiapas. *Papeles de Población*, 8(31), 67–93. <http://www.redalyc.org/articulo.oa?id=11203103%0ACómo>

- Naciones Unidas. (2018). La Agenda 2030 y los Objetivos de Desarrollo Sostenible: una oportunidad para América Latina y el Caribe. In *(LC/G.2681-P/Rev.3)*, Santiago.
- Nava, M.E. & Hernández, M.I. 2017. Cafecultura en Veracruz: entre alternativas y crisis. 99-122. In. Veracruz, un análisis para el desarrollo. Galicia, O (edit).
- Paz Paredes, L. (2018). Mujeres del cafetal en la región central de Veracruz Aportaciones femeninas a la economía campesina en el colapso de 2013-2017. *Argumentos, Estudios Críticos De La Sociedad*, 86, 229–250. <https://argumentos.xoc.uam.mx/index.php/argumentos/article/view/12>
- PRONATURA. 2017. Regiones cafetaleras de Veracruz. Aroma de la biodiversidad, de Pronatura, A.C. 26 de abril de 2017. [https://issuu.com/pronaturaveracruz/docs/cafe\\_y\\_biodiversidad\\_web\\_isu](https://issuu.com/pronaturaveracruz/docs/cafe_y_biodiversidad_web_isu)
- Quero Virla, M. (1997). Confiabilidad y coeficiente Alpha de Cronbach. *Telos: Revista de Estudios Interdisciplinarios En Ciencias Sociales*, 12(2), 248–252.
- Rowlands, J. (1997). Questioning Empowerment. In *Questioning Empowerment*. Oxfam Publishing. <https://doi.org/10.3362/9780855988364>
- Secretaría de Agricultura y Desarrollo Rural (SADER). México, onceavo productor mundial de café. SADER, publicado 02 de marzo de 2018. <https://www.gob.mx/agricultura/es/articulos/mexico-onceavo-productor-mundial-de-cafe?idiom=es>.
- Sánchez Hernández, M. de la L., Martínez Sánchez, C. E., Alarcón Pulido, S. A., & Cabrera Núñez, A. (2019). Economía agroalimentaria: Análisis de la producción, comercialización y problemática del cultivo del café. *Revista Biológico Agropecuario Tuxpan*, 7(2), 79–86. <https://doi.org/https://doi.org/10.47808/revistabioagro.v7i2.33>
- SEFIPLAN. (2013). *Programas Regionales Veracruzanos*. <http://www.veracruz.gob.mx/finanzas/wp-content/uploads/sites/2/2020/02/PR-Capital-editado-2013.pdf>
- Vargas-arroyave, L. P., Bernal-calderón, L. V., & Torrente-rocha, J. J. (2020). Empoderamiento de la mujer y capacidad de agencia en la caficultura : el caso de la asociación Ingemur. *Veritas & Research*, 2(1), 60–68.

