

Export Agriculture and Poverty in the Valley of Ciudad Guzmán

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During the eighties and nineties, the economy of Southern Jalisco did not change substantially, and its towns and villages stagnated in economic terms. People left for the U.S. and elsewhere, and both male and female labor force participation and employment rates were low. There were very few internal migrants, signaling that the region did not offer significant job opportunities, and there was widespread deforestation.

Agriculture changed with two major new crops introduced after 2006: berries (mostly raspberries and blueberries) and avocados. Today, the region is a major exporter of both. There is in-migration, and almost no out-migration to the US. Job offers are posted in many visible places in Ciudad Guzmán and nearby smaller towns. They often post a “guaranteed income” of a certain amount, plus full job benefits.

Berries and avocados are almost opposites in agricultural terms. Both offer growers high yields and revenues. But while avocados employ on average less than one full-time worker per hectare per

year, the average employment per hectare for berries is slightly under 8 full-time workers. It would seem berries could bring prosperity, in the form of jobs, to a region like Ciudad Guzmán and its surrounding towns and villages. Export agriculture jobs offer better incomes and benefits than most rural jobs, and better even than some urban manufacturing jobs. And avocados, although they provide relatively low employment,

have expanded to cover a vast expanse of forested¹ and unforested hills, while offering relatively good jobs for pickers, packers, engineers and other specialists.

We carried out a random, stratified survey of export produce farm workers in five Mexican states, including 805 berry workers in Southern Jalisco. The average monthly wage of farm workers in the berry industry in the Ciudad Guzmán region was \$7,093 pesos

¹ Avocados are blamed for significant deforestation in the region.

Photo 1.



Zapotlan Valley.
Author: Michelle Judd.

* Project “Farmworkers in Mexico’s Export Agriculture”.

net per month² in March 2019 (363 dollars at the time), above the wages normally available to persons with very low schooling and who speak an indigenous language. According to our interviewees (some of whom had left manufacturing jobs), manufacturing wages in Western Mexico were about 6,700 pesos. In addition to earning slightly more year - round, our interviewees preferred picking berries because, during the peak season they can earn over 10,000 pesos per month, something that can never be done in unskilled manufacturing jobs or in other rural occupations. Peak season pay helps them save, get out of debt, or buy a small plot of land. Both in terms of the number of jobs, and in wage levels, avocados and berries should be catalysts for positive social and economic change.

“Importing poverty”

We analyze agricultural production and poverty levels in 2010 and 2015 in Ciudad Guzmán and Gómez Farías to ask whether export agriculture generally, and berry production in particular, have imported poverty into the region. As one prominent citizen in Guzmán told us, “we are much worse off with 10,000 jobs at minimum wage, than without them”. Poor workers, according to some, drink in public, can become dangerous, inflate the prices of basic goods, crowd out the region’s poor, and demand more and more

services that can’t be provided.³ Our goal is to determine the extent to which agricultural change has affected poverty levels. Of course, other economic changes could also

³ According to academics at the local university, large growers have rented many large houses downtown to turn them into worker housing. They drive up the prices for professionals and small entrepreneurs, but also, if you rent them a house, growers tend to overcrowd workers, and workers tend to be careless, so houses end up in very bad shape.

shift in poverty levels. However, as we will see, agricultural change is a very important economic change over the past 15 years.

The purpose of including these two municipalities is to incorporate into our analysis the differential impact of agricultural and employment growth when considering a large commercial town such as Guzmán

Foto 2.



Farm worker in a shelter located in Ciudad Guzman.
Author: Michelle Judd.

² Net cash per month refers to take home pay, not including the value of benefits, nor end-of-season or end-of-year bonuses. It is estimated by multiplying the workers’ last week’s pay times 4.2.

(population 105,000⁴), which is also a regional center, and its immediate neighbor to the North, which is far smaller (14,000), and relatively more rural (approximately 1,700 inhabitants are classified as rural). Both can also be viewed as a region within which people move freely in the course of one day. Indeed, many farm workers arriving in the area have settled in Gómez Farías, whose population had declined, and where lodgings cost less. Employers we interviewed assert they transport workers up to 2 hours by bus. Gómez Farías is just 10 minutes away from Ciudad Guzmán.

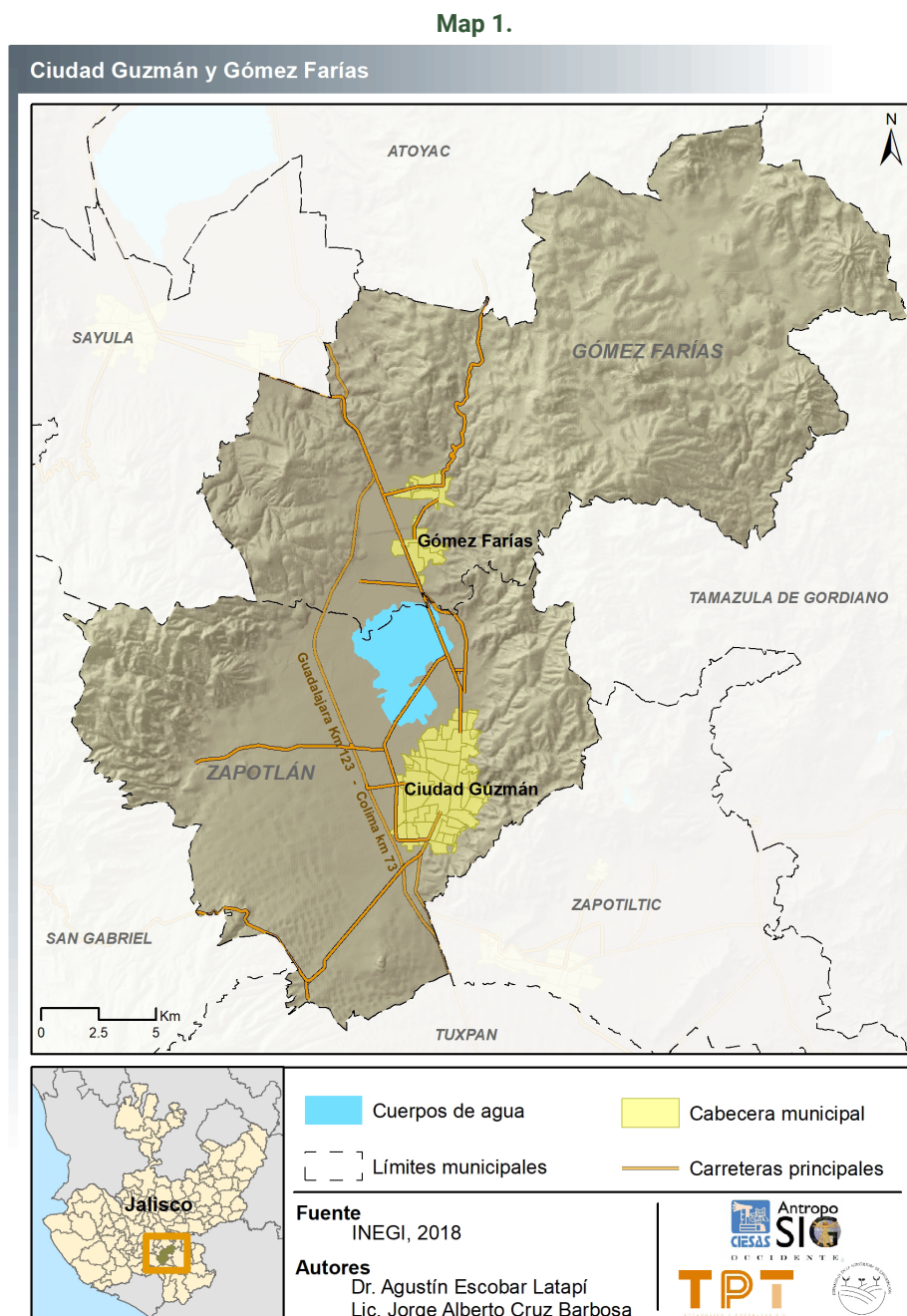
We concentrate on the period 2010 – 2015 because there are municipality – level poverty measurements for both dates. Agricultural change has taken place both before and after these two dates, and production and employment continued to increase since 2015.

Mexico's Poverty Measurement Methodology

Mexico's official poverty measurement methodology was defined by an autonomous council created by law: CONEVAL⁵. It has two main characteristics: 1) it is multidimensional, as opposed to "poverty line" metrics in which income is the single variable determining a person's level of well-being. 2) It is based on the

⁴ Total population in the municipality in 2015. The estimate for the city itself is 102,000.

⁵ Consejo Nacional para la Evaluación de la Política de Desarrollo Social (National Council for the Evaluation of Social Development Policy).



recognition of unsatisfied wants, or deprivations, which themselves are derived from the recognition of specific rights in Mexico's constitution. Mexico's methodology is the basis of most new poverty measures internationally. CONEVAL itself, the World Bank and institutions like OPHI at Oxford University, have advised governments on ways to adopt the Mexican methodology.

CONEVAL's poverty measure differs from other multidimensional poverty measures by categorizing the various dimensions of poverty along two major axes: income and deprivations. The vertical axis measures income, the horizontal axis counts deprivations. A person is poor if her (his) income is below the well-being line and has at least one deprivation. Extreme poverty is

defined as both an income below the minimum well-being line (equivalent to the cost of a basic food basket⁶) and at least three deprivations.

The advantage of a multidimensional poverty estimate, when assessed from the thresholds set by a country's congress, is that it provides a detailed assessment of changes in terms of specific dimensions of wants. Most dimensions can, in turn, be decomposed into specific variables. Housing quality includes building materials, overcrowding, etc. Housing services include the provision of water, electricity, and sanitation. Education includes school attendance and school attainment, etc. In Mexico, lawmakers decided to include income (represented along the vertical axis), and include on the horizontal axis food, health services, education, social security, two dimensions relative to housing (one corresponds to space and quality of materials, and the other to provision of services to the dwelling). Finally, the poverty measurement includes social cohesion. CONEVAL decided to include social cohesion as a contextual observation, not one applicable to individuals or households, so the published measurements do not include social cohesion at the individual or household level.

We will assess changing poverty levels at a global level but also in detail. This will allow us to consider the relationship of each specific

change to changes in agricultural production and employment.

Agricultural change

Agricultural production has changed in both municipalities.

The harvested area decreased in Guzmán and increased in Gómez Farías. The real changes take place in total tons harvested and in the value of the harvest. Each land unit is producing 174% more in 2015 than in 2010 in Guzmán. By contrast, in Gómez Farías, although the land area is growing and the volume harvested has grown, the value of the total harvest is stable, and the value per hectare fell slightly. It would seem that, while the more valuable crops arrive in Guzmán, the less valuable ones move to Gómez Farías. Changes in employment seem modest when confronted with the large increase in total value in Guzmán. In Southern Jalisco in general, farm workers in export

agriculture were estimated to total 55,000 by 2018.

Poverty in 2010 and 2015

Figure 1 depicts changes in poverty from 2010 to 2015. (For more information see appendix at the end of this document).

We will refer to each municipality, and then make a more general comment. In Ciudad Guzmán the total percentage of people in poverty doesn't change, and the total number of poor persons increases due to population growth. A more detailed analysis shows that extreme poverty is cut in half (from a low figure) between 2010 and 2015. The total population with one social deprivation falls by ten percent; the population with three deprivations falls 40, and the population lacking access to health services falls, a nationwide phenomenon related to the expansion of the "Popular Health Insurance" system (which has since

Table 1
Agricultural Change and Farm Workers in Ciudad Guzmán and Gómez Farías, Jalisco, 2010 and 2015

	Harvested Area (Hectares)	Volume (Metric Tons, thousands)	Value (Millions of Pesos)*	Value / Hectare	Farm Workers**
Ciudad Guzmán					
2010	18,875	22,879	778.6	41.25	2,682
2015	11,803	52,664	1,334.8	113.09	3,841
% Change	-37.4	+130.2	+71.3	+174.2	+43.2
Gómez Farías					
2010	5,262	50,998	198.1	37.6	1,027
2015	6,258	94,106	211.6	33.8	1,844
% Change	+18.9	+84.5	+6.5	-10.1	+79.6

Source: estimated by Judd and Martínez on the basis of SIAP – SADER (for agricultural variables) and INEGI (for farm workers).

* Constant pesos. Base 2018=100.

** The census category is called Farm Workers. It excludes any other occupations in agriculture.

6 Mexico's food basket was defined from scratch by CONEVAL in 2008, in order to include it in the poverty measurement methodology,

been abolished), but also reflects improvement in another variable, namely access to social security, which improves. The quality of housing improves, as does access to food, and the population with incomes below the cost of the minimum well-being basket (which is food only) falls noticeably too.

Gómez Farías is a poorer municipality, and the proportion of the population under the poverty threshold was larger to start with, and dropped by a mere 2%. The loss of total population in Gómez Farías over these past 5 years, however, means that the absolute number of poor fell as well and extreme poverty fell by 40%. The proportion of the population that is neither poor nor vulnerable also rose, which means that the number of people who both have an income above the well-

being line and have no deprivations increased. Social deprivations related to health services and to access to social security fell, meaning more people have access to these benefits. Finally, the percentage of the population that is deprived of full access to food fell by about 80%.

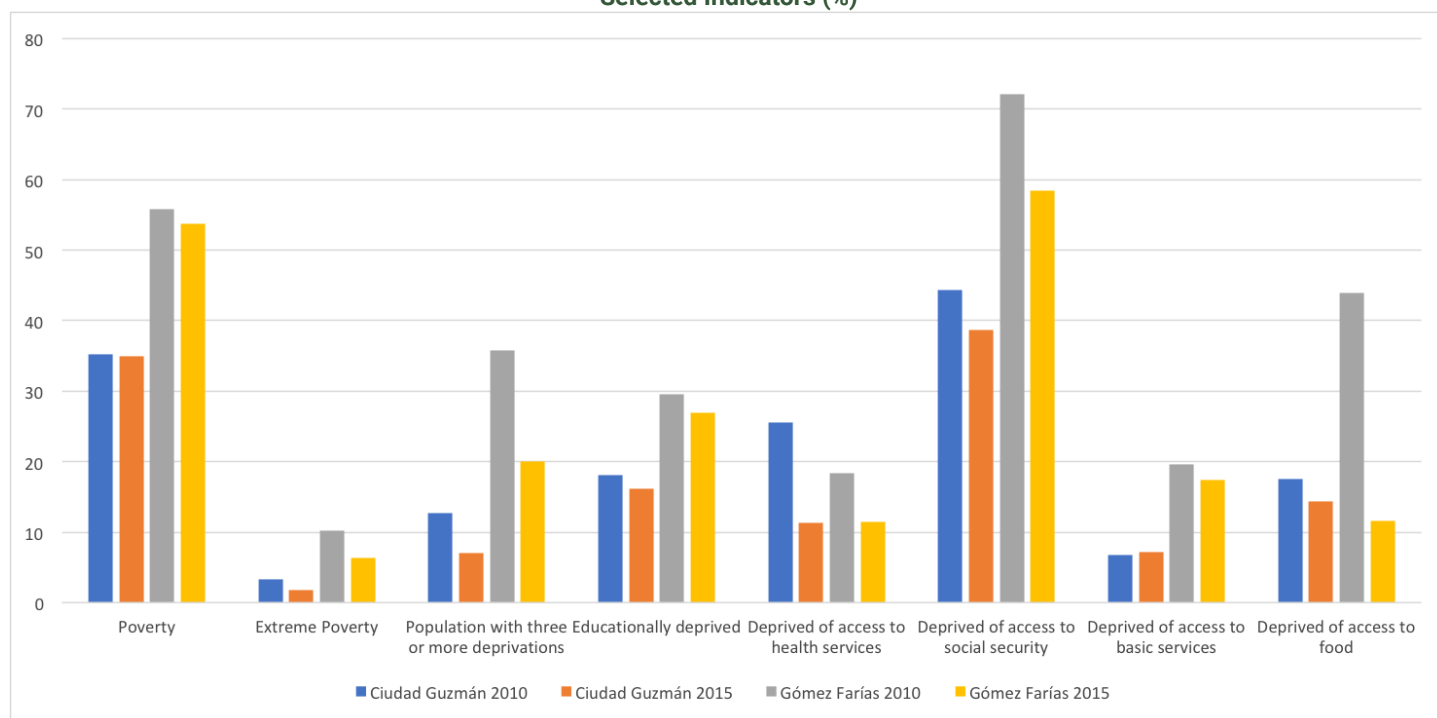
Conclusions

It is possible to frame agricultural change and poverty trends in the Ciudad Guzmán micro – region in “glass half – full” or “half – empty” terms. Also, change may be happening for many reasons, not only agricultural change. Nevertheless, export agriculture has expanded dramatically; new infrastructure has appeared in Guzmán; the fields surrounding


both Guzmán and Gómez Farías look altogether different, because of the prevailing plastic; new bus lines have been added to transport farm workers in the region and from Guzmán to Guerrero and Chiapas, suggesting that agricultural change is the reason for most observed changes.

Our analysis centers on jobs, and the impact of job changes on poverty. According to CONEVAL, there are two crucial factors underlying the fact that poverty in Mexico hasn't improved in a significant way. One is income levels, and the other is social security coverage. Both can be fixed by better jobs. So the question can be rephrased: have the jobs brought by agricultural change improved incomes and social security coverage?

Figure 1.
Poverty in the Zapotlán Valley, Jalisco, Mexico, 2010 - 2015
Selected Indicators (%)



Source: Own elaboration, on the basis of CONEVAL's dynamic outcome public use data from the municipal measurement for 2010 and 2015. Consejo Nacional para la Evaluación de la Política de Desarrollo Social, 2017.



Poverty has not increased. It seems the risk of importing poverty, with all its consequences (low quality housing, overcrowding, etc.) did not materialize. Although some farm workers live in crowded, unsanitary quarters, the quality of the population's housing in general has improved. It is nevertheless disappointing to see that a large increase in agricultural output in Ciudad Guzmán, where the real value of crops harvested has increased by 71% or 600 million pesos, has not been distributed among the population in general.

On the other hand, two indicators of severe, extreme poverty have improved very noticeably. Extreme poverty shrank dramatically in both municipalities. In other words, the worst kind of poverty, that which places a person at risk of not having enough to eat, has fallen very substantially.

In sum: Overall poverty did not diminish. Extreme poverty, food deprivation and other deprivations, on the contrary, fell very substantially. A corollary is that income inequality also diminishes. The specific kind of export agriculture that has expanded rapidly in the Guzmán Valley seems to be responsible for a fall in extreme poverty. In other words, it has improved the incomes, social security and other deprivations of people at the bottom of the income structure. It did so to a greater extent in Gómez Farías, the poorer municipality. It seems that a larger share of the population of Gómez Farías has been impacted by increasing employment and increasing wages.

More information: jornamex.com

APPENDIX

Table 2. Multidimensional Poverty in Ciudad Guzmán, 2010 and 2015

Indicators	Percentage		Persons, N		Average Deprivations	
	2010	2015	2010	2015	2010	2015
Multidimensional Poverty						
Population in multidimensional poverty	35.2	35.0	33,544	35,721	2.0	1.7
Population in moderate multidimensional poverty	31.9	33.2	30,438	33,888	1.8	1.6
Population in extreme multidimensional poverty	3.3	1.8	3,106	1,833	3.5	3.3
Vulnerable population on account of deprivations	26.3	20.4	25,077	20,798	1.8	1.5
Vulnerable population on account of income	10.3	14.6	9,839	14,849		
Population that is neither poor nor vulnerable	28.2	30.0	26,935	30,574		
Social deprivation						
Population with at least one deprivation	61.5	55.4	58,622	56,519	1.9	1.6
Population with at least three deprivations	12.7	7.0	12,100	7,118	3.4	3.3
Deprivation indicators*						
Below educational attainment threshold	18.1	16.2	17,231	16,545	2.3	2.0
Access to health services	25.5	11.3	24,333	11,543	2.5	2.4
Access to social security	44.3	38.7	42,229	39,433	2.2	1.8
Dwelling: quality and space	6.7	7.2	6,364	7,334	2.9	2.4
Dwelling: Access to services	5.0	2.6	4,815	2,684	2.6	2.9
Access to food	17.6	14.3	16,786	14,595	2.5	1.9
Well-Being						
Population with income below the well-being line	45.5	49.6	43,384	50,570	1.5	1.2
Population with income below the minimum (food) well-being line	14.3	11.5	13,672	11,749	1.8	1.5

Source: Own elaboration, on the basis of CONEVAL's dynamic outcome public use data from the municipal poverty measurement for 2010 and 2015. Consejo Nacional para la Evaluación de la Política de Desarrollo Social, 2017.

All deprivation indicators refer to the *lack* of a certain good or service

APPENDIX

Table 3. Multidimensional Poverty Indicators for Gómez Farías, 2010 and 2015

Indicators	Percentage		Persons, N		Average Deprivations	
	2010	2015	2010	2015	2010	2015
Multidimensional Poverty						
Population in multidimensional poverty	55.8	53.8	9,609	7,718	2.6	2.3
Population in moderate multidimensional poverty	45.6	47.5	7,847	6,817	2.3	1.8
Population in extreme multidimensional poverty	10.2	6.3	1,763	901	3.7	3.5
Vulnerable population on account of deprivations	32.6	26.0	5,608	3,723	2.2	1.8
Vulnerable population on account of income	3.8	9.5	649	1,357		
Population that is neither poor nor vulnerable	7.8	10.8	1,343	1,550		
Social deprivation						
Population with at least one deprivation	88.4	79.7	15,217	11,441	2.4	1.9
Population with at least three deprivations	35.8	20.0	6,166	2,873	3.7	3.4
Deprivation indicators						
Below educational attainment threshold	29.5	27.7	5,076	3,968	3.1	2.5
Access to health services	18.3	11.4	2,156	1,633	3.2	2.8
Access to social security	72.2	58.5	12,429	8,396	2.6	2.1
Dwelling: quality and space	19.6	17.4	3,365	2,503	3.7	2.7
Dwelling: Access to services	31.1	26.7	5,352	3,837	3.4	2.6
Access to food	43.9	11.6	7,560	1,666	3.2	2.8
Well-Being						
Population with income below the well-being line	59.6	63.2	10,258	9,075	2.4	1.7
Population with income below the minimum (food) well-being line	21.5	19.1	3,695	2,738	2.6	2.0

Source: Own elaboration, on the basis of CONEVAL's dynamic outcome public use data from the municipal poverty measurement for 2010 and 2015. Consejo Nacional para la Evaluación de la Política de Desarrollo Social, 2017.