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PAN PRODUCTION IN THE MUNICIPALITY OF SAN ILDEFONSO VILLA ALTA, OAXACA, MEXICO

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Abstract: The way of organizing pan producers in Mexico continues to be the traditional way; despite the fact that it is an economy that occupies the first places in exporting it; It is not thus understandable the levels of poverty and marginalization that the South Southeast region of the Mexican Republic manages; In the same way, the Oaxacan entity is located in that region where, as a consequence of these indicators, the migration of the population in that state is managed, so the general objective of this work is to describe the form of organization and management that the pan producers of that municipality; as well as the description of the study area and the characteristics of the pan producers; the theory that serves as the basis for the recommendations of public policy strategies is endogenous development; this that potentiates the competitive advantages of each region.

Keywords: Production, organization, management, poverty.

METHODOLOGY

The investigation was carried out in two phases, the first was in the office where different sources of information such as INEGI, COPLADE, CONAPO were consulted to obtain information on the study area, field work was carried out where a questionnaire was applied to producers. of pan of the municipality, applying a pilot test, to know the form of organization and management of the workers of the production of pan and its derivatives, the questionnaire covered the socioeconomic profile of the producers, economic benefits of the production of pan, as well as as their ways of producing; for the theoretical framework, he focused on endogenous development.

STUDY AREA

The state of Oaxaca is located in the south-

eastern region of the Mexican Republic, it has 570 municipalities of which are divided into eight geographical regions, the municipality where the investigation was carried out San Idelfonso Villa Alta is located in the region of the Sierra Norte of the Oaxacan entity; area that covers 68 municipalities grouped into three districts, Ixtlán, Villa Alta and Mixes (COPLADE, 2023).

Region that represents a low number of inhabitants with respect to the total of the state 173,161 4.4% of the total reported by the state of Oaxaca 4,132, 148 inhabitants (INEGI, 2023) most of the municipalities and localities of that region are classified as rural, in addition that report a small number of inhabitants within the localities and there is dispersion, are governed by the Internal Regulation System (SNI) uses and *customs*.

In 2015, 44% of its municipalities reported living in extreme poverty; 38% in moderate poverty; and 18% are not considered poor; the marginalization indicator, region reports 10% living in a very high marginalization index; 57% high rate of marginalization; 9% low marginalization index; 1% very low marginalization index; which indicates that the municipalities that are still in that marginalized group have an illiterate population, a population of 15 years and over without finished primary school, the houses in which they live do not have electricity, without water, without drainage, they live in overcrowding and they speak an indigenous language.

The area in which it is of interest to analyze the forms of pan production is San Idelfonso Villa Alta, which is located in the district of Villa Alta, its distance from the state capital is 142 km²; Within its geographical strengths there are two rivers inside it, being: the Cajonos river and the Temaxpalapa river, a tributary of the Papaloapan basin.

Regarding the number of inhabitants of the

municipality for the year 2020 (INEGI) reports 3,677 inhabitants with a percentage of 48.4% representing men and 51.6% women. Within the population, the indigenous population was taken into account with 2,962 people, that is, more than 80%; the Afro-Mexican population with 213, which represents 5.8% of the total population; It is reported that the Mixe and Zapanec languages are spoken.

In the education variable that report having an educational level, in the municipality there is a population of 15 years and over, who has studied the basic level of schooling, there are 1,953 people representing 70% of 2,798 that are 100%.; At the upper secondary level, 461.6 people have completed it, which is 17%; the population without schooling and that does not specify are low, since INEGI (2020) mentions that 210 people do not have schooling and three do not specify whether they study or not.

In the region where this municipality is located, it is classified as an area with high rates of migration, so this variable was analyzed in this geographic space, obtaining the following results:

In the municipality of San Idelfonso, it can be seen in graph two that the population has emigrated in search of work, 100% of the people who report having left their community, 24% (789.13 inhabitants) emigrated in search of employment; 54% (1,820 inhabitants) left with their relatives who had previously emigrated; 16% (527.2 inhabitants) went to study; 1% (40.2 inhabitants) due to the insecurity of the place and 5% (181.3 inhabitants) for other causes.

According to the marginalization indicator, in 2020 (INEGI) reports an index of 0.85 average marginalization index; lo cal is interpreted as the total population of the municipality; 9.84% of the population aged 15 years and over is illiterate; population aged 15 and over without basic education 55.35%;

housing conditions 0.52% do not have drainage; 0.41% without electricity; 0.22% without piped water; 21.35% of the population lives in overcrowding.

ANTECEDENTS

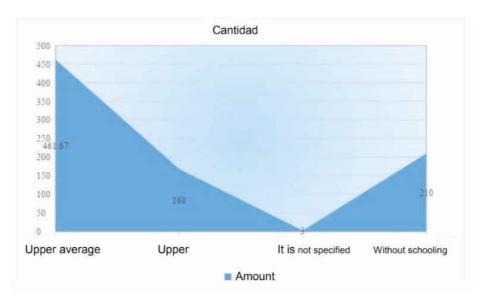
Restrepo (2007) cited by (Reyes, 2018) mentions that in the year 1553 Christopher Columbus introduced sugar cane to Mexico, with it came the mills and the milling process, to have pan as a product.

Now it is interesting to describe what is pan? It is a sweetener that is extracted from sugar cane which is made by hand without bleaching it, a hygienic and chemical-free process (OXFAM, 2022); although it receives different names according to where it is produced, for example in Colombia it is called pan, in Peru, Chile and Ecuador chancaca, in Mexico and Costa Rica Piloncillo, in Cuba and Brazil raspadura (Rojas, 2014).

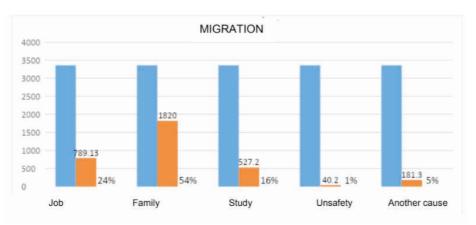
Pan has been recognized for its nutrients and medicinal properties, the countries ranked first as pan exporters are India, Colombia (Campesino, 2021), the latter country exports 1.2 million tons annually; In 2011, Mexico appeared in 6th place as an exporter of pan (Reyes, 2018).

However, in 2019 the following countries that export the most worldwide are reported, India being in first place with 63.06%; Colombia 12.00%; South Africa 4.42%; Belize 2.51%; Thailand 2.46%, the Philippines 2.34%, the United Kingdom 1.95%, Pakistan 1.80% and El Salvador 1.17%, leaving Mexico out of the first places to export.

Among the ten countries that consume this product the most are: Spain with 38.58%, the United States 33.58%, Italy 7.81%, France 4.41%, Panama 3.13%, Chile 2.92%, Germany 2.26%, Canada 2.25%, South Korea South 2.63%, Australia 1.01%.



Graph 1. Educational levels Source: Prepared by the researcher with data from INEGI 2020.



Graph 2. Source: Prepared by the researcher with data from INEGI 2020.

India	63.06	
Colombia		14.00
South Africa		4.42
Belice		2.51
Thailand		2.46
Philippines		2.34
United Kingdom		1.95
Pakistan		1.80
El Salvador		1.17

Table 1: Pan exporting countries Source: www.treind.co (blog, 2020)

THEORETICAL FRAMEWORK

One of the biggest development challenges is to find a balance between social welfare, use of local capacities, organization and integration of resources, based on respect for social and cultural forms, which also ensures economic growth and regional integration.

At present, information, communication and production technologies are strongly disrupting the production and service processes, quasi-artisanal, rural communities. In this new phase of production, the need to synergistically orient endogenous efforts to respond to the demands of open or exogenous markets enters into debate. This is guiding communities to think in terms of productivity, from the introduction of new technological mechanisms that improve productivity and from better combinations of productive factors, to face the onslaught of highly industrialized global markets.

Endogenous development is an approach that is valid within public policy, includes a territorial and spatial basis, which allows us to understand that it is not a rigid model, but a process with local strategies, economic growth, social welfare, and also, it is valid, when considering the participation local agents as fundamental, respecting the specificity based on culture and forms of social organization. As Vázquez (2007) points out, it is a response from local actors to the challenges of global markets; that integrates different visions of development, such as selfcentered development, human development, sustainable development or development from below.

The commitment to endogenous development "is strengthened by the «discovery» of more flexible forms in the territorial organization of production (Piore and Sabel, 1984; Scott, 1988), the incorporation of business networks and networks of actors in the economic analysis

of territories (Johannisson, 1995; Hakansson and Johanson, 1993), the understanding that innovation obeys an evolutionary process (Dosi, 1988; Maillat, 1995), and the recognition that sociocultural and Institutional structures have strategic value in development processes (Fua, 1983; North, 1981 and 1986)." Vazquez (2007).

It is necessary to emphasize that the strength of the communities lies not only in the respect of their forms of organizations and their solidarity institutions for decision-making, but also in the maintenance and rescue of ancestral cultural values, which are reflected in local products. high quality and in demand in local regional markets. That also maintain a certain coherence with the non-expansive and invasive management of natural resources, respecting the understanding that humans are part of nature, far from the anthropocentric sense of dominance, which is found in spaces where modernity has had a significant impact that is more intense.

The decisions of community and individual social production are in accordance with the local productive vocations, and the resources that are within its scope of action. However, the conditions of the markets have changed in the last decades, because the commercial opening has originated a competition of substitute products or new products that is generating new consumption needs and therefore production, according to the economic laws of increasing returns.

From the vision of endogenous development, as a potentiatelizer of the internal capacities of the community, the socioeconomic and cultural initiatives of the social economy appear hand in hand, where they fight not only for sustainability, the sustainability of local production, and well-being general social, but also in the reinforcement of collaborative work and community ownership, proposes a social change, with greater participation of

local actors based on the characteristics and differences of the territory.

The participation of citizens and local organizations allows their own forms of promotion and management of local development processes to define and commit to projects; starting from the fact that the capacity of the resources and the investments are known. As pointed out by Vázquez (2007)

Citizen action is the basis of development policies, so the most efficient public actions would be those that are designed and managed from below, and also grants a democratic value to development policy and to the decisions of citizens to satisfy your needs.

When we talk about development processes, based on projects defined from the local level, we recognize the productive vocations of the people, in order to be able to integrate in a committed way with the activities where they can contribute their cognitive capital and use the capacities that the participating people themselves have developed thanks to their current and potentiatel social and cultural activities that they are able to carry out so that it is culturally sustainable.

Boisier (2004), points out that the practice of the endogenous, essentially, consists of the territory's ability to save and invest the benefits in the territory itself and promote the technological progress of the productive fabric from the territorial innovation system. He tells us about opening the production processes, not only to the technological support part that facilitates the production and marketing tasks, but also to potentiate the local (culturally, economically, socially and we dare to include the environment) with windows open to the outside areas. By taking advantage of the favorable circumstances of the sector and the dynamism of our own and external resources.

The innovation of the productive processes is a concept that is promoted, based on

the traditional cultural particularities of the communities. We are talking about a sense of development ad hoc to traditional productions, where productive improvements can also be promoted at the level of enterprises that boost the local economy, using efficiently the resources available locally and those that were obtained from other productive sectors or other communities external.

The development pattern for Latin America has been different from that of Europe. In the majority of LA countries, the State has promoted economic models with centralized strategies, which have oriented production systems and internal markets, obeying global fluctuations.

In the 1930s and for more than six decades, the orientation of the forms of production was strongly supported by the State, the orientations of the markets and the policies to support these processes were strongly centralized. There is a process of industrialization through import substitution, which drastically changes the demographic and productive dynamics of internal markets.

Starting in the 1980s, in a very marked way, a strong process of liberalization of the markets began, opening the way for processes in fiscal and monetary matters to stimulate the commercial opening between nations and with strong privatization processes, detached from the State.

These open commercial exchanges, together with a series of discoveries and research in information technology and communications, further modified the forms and processes of production and consumption, at the local, regional and national levels.

However, in the indigenous communities, forms of production continued to prevail, which have remained practically unchanged. This same condition has kept them at a clear disadvantage for economic competition and subsisting more as traditional forms of local

consumption. The subsistence mechanisms are based on the so-called social capital that the communities themselves keep in their social relations.

For Latin America, national productions and their insertion in global markets, with high technological competition applied to the production of goods and services, have been marked by asymmetry. Economic policies are outlined by international organizations that put Latin American economies at a disadvantage.

With these economic, political and social conditions, the local companies that have subsisted in the communities have demonstrated their productive flexibility and robustness, based on local solidarity, consumption and production ties.

Given this panorama, the possibility of guiding these processes from an endogenous development approach is legitimate, which further potentiates traditional processes, according to resource and labor vocations, strongly rooted in local and national consumption.

In these forms of production and consumption where social capital has played a fundamental role for its strengthening and permanence; We understand that the internal organizations of the communities have known how to work with equality, even considering the local-regional heterogeneity. They have had their own reconfiguration, which has allowed them to remain current.

There are two essential processes, essential to guide endogenous development processes: informed (education) and organized (social capital) social participation and the need for effective territorial decentralization processes.

The effective meaning of an organization is the frontal, primary, direct relationships between the local development agents, which allow the reinforcement and multiplication of the processes and groups identified and drivers

of development on a broader scale. Territorial decentralization implies autonomous physical and social spaces, to expand the benefits of development, and interest the multiplier effect at regional scales; encouraging capital to have a local effect and strengthening small, medium and large local companies. This by inertia, denotes a positive effect, mainly in the generation of equitably paid jobs, to increase productivity and mobility and increase social and financial capital.

RESULTS OF THE INVESTIGATION

According to the results obtained from the questionnaires that were applied to a sample of 90% of the producers of the municipality, being five economic agents, the following information was obtained in the socioeconomic profile: the ages of the producers are 25% from 31 to 40 years old; 25% from 41 to 55 years of age, producers of legal age over 55 years were 50% of those interviewed; from what can be seen there is no young workforce.

In the educational levels it was observed that 50% have a secondary education level, 25% with a primary education level and the other 25% with an upper secondary education level, that is, high school.

Regarding the monetary income that they receive in addition to sugarcane production, they answered that the monetary income from sugarcane derivatives is their main economic income in the economy of the producers, taking into account that 75% do not have another income. which depends on what they produce, 25% of the producers have another form of incorporation into their economy since they do not only depend on the sale of sugarcane production.

According to the number of workers that each producer has, they answered that it is according to the size of the plot, so that 75%

of the producers involve 1 to 3 people, 25% involve 7 to 10 people.

During the pan production process, it can be determined that 75% benefits 1 to 3 families and 25% benefits more than 10 families; Therefore, the forms of production are artisanal with the support of a mare¹.

The producers have followed a series of family generations due to the production of cane and that continue with the process, 50% of the producers are the 3rd generation, 25% are the 2nd generation and the last 25% are the 5th generation; where it is concluded that in the northern sierra region the production of pan is a generational work that has been inherited from generation to generation.

In the production area, the following was obtained: according to the months of the year they work, 50% of the producers sow sugarcane in the month of February, 25% in the month of April and the last 25% in the month of May, the first months of the year are the main ones for producers due to the adequate climate.

CONCLUSIONS

Therefore, according to the age of the producers, migration can be confirmed in the young population of the municipality; so there is a risk of losing that economic activity that generates jobs within the community, and that has been a form of generational production.

The production of sugar cane in the municipality shows that there is a generation of jobs, since they give jobs to the population of the community or to members of the family that they incorporate into work; since it could be analyzed, in the number of families that are benefited during the production of pan.

Therefore, it is necessary to support the producers of the municipality through support for marketing, to look for marketing channels so that the economic activity that, given the conditions of the municipality, is favorable for

their production does not disappear.

The climate of the municipality is cloudy and partially hot, being a strength, since it allows them to divide their production work; in the rainy months sow and in the heat ferment the product.

Despite the fact that this space has traditionally produced sugar cane, it tends to disappear due to migration and the living conditions of the population, so pan being a product in demand in European countries, it is necessary to train and inform producers of the Sierra Norte region of the state of Oaxaca, the importance that this has, as well as advertising to increase consumption within the Mexican economy.

Therefore, according to the theory, this indigenous community will continue using its form of artisan production, although it is a disadvantage for economic competition, at the same time it is a subsistence mechanism, which has been called social capital.

Therefore, this social capital must be taken advantage of by increasing the indicators of education and administrative training so that they have knowledge of how to manage the commercialization of their products and these can be more competitive, since by organizing this capital social becomes an economic capital that allows the development of the region.

¹ Horse female

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