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In the first article we present *Development and resistance. Public investment projects in the Isthmus of Tehuantepec, Oaxaca* by PÉREZ-LARRAÑAGA, Héctor, CASTILLO-LEAL, Maricela, MARTÍNEZ-CASTRO, Cesar Julio and GARCÍA-MARTÍNEZ, Katia, with adscription in the Instituto Tecnológico de Oaxaca, as the next article we present, *The impact of social responsibility on organizational legitimacy* by LANDAZURI-AGUILERA, Yara, RUIZ-PÉREZ, Roberto and MORENO-MILLANES, Maria Dolores, with adscription in the Instituto Tecnológico de Sonora, as the next article we present *Taxkat emblem for the conservation of Totonacapan* by GARCÍA-FLORES Atzin, GARCÍA-RAMOS, Crescencio, GUTIERREZ-PEÑA, Esteban and RENDON-SANDOVAL, Leticia, with adscription in the Instituto Tecnológico Superior de Huatusco, as the last article we present *Public policy proposal, inclusive tourism for people with disabilities in San Juan del Río, Qro.*, by PÉREZ-BRAVO, Julia, with adscription in the Universidad Autónoma de Querétaro.

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Development and resistance. Public investment projects in the Istmo de Tehuantepec, Oaxaca

Desarrollo y resistencia. Proyectos de inversión pública en el Istmo de Tehuantepec, Oaxaca

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Abstract

Public investment projects are "proposals for change that, based on specific investments, policies and action strategies, seek to expand people's opportunities and options for development" (Bobadilla *et al.* 2012). Among the most common are nuclear power plants, hydroelectric and petrochemical facilities, industrial zones, large economic and public transportation corridors. This research will refer to the main public investment projects implemented in the Isthmus of Tehuantepec region, with emphasis on the Interoceanic Corridor. The purpose of this is to analyse the impact of public investment projects that have been carried out in the Isthmus of Tehuantepec region on the promotion of local development. Thus, the historical results of the public investment projects were analysed according to the dimensions of local development, comparing them with each other, in order to later analyse the historical results and in future research project the impacts of the interoceanic corridor through its design, to confirm the social relevance of said project, whether it will be different or not and that it satisfies the axes of local development.

Development, Isthmus, Impacts

Resumen

Los proyectos de inversión pública son "propuestas de cambio que, a partir de determinadas inversiones, políticas y estrategias de acción, buscan ampliar las oportunidades y opciones de desarrollo de las personas" (Bobadilla *et al.* 2012). Dentro de los más comunes se encuentran las centrales nucleares, instalaciones hidroeléctricas, petroquímicas, zonas industriales, grandes corredores económicos y de transporte público. Ahora bien, en esta investigación se hará referencia a los principales proyectos de inversión pública implementados en la región del Istmo de Tehuantepec en Oaxaca, con énfasis en el Corredor Interoceánico. Esto con la finalidad de analizar la incidencia en el impulso al desarrollo local de los proyectos de inversión pública que se han llevado a cabo en la región del Istmo de Tehuantepec. Es así que se analizaron los resultados históricos de los proyectos de inversión pública acorde a las dimensiones del desarrollo local, comparándose entre sí, para después analizar los resultados históricos y en futuras investigaciones proyectar los impactos del corredor interoceánico a través de su diseño, para confirmar la relevancia social de dicho proyecto, si será diferente o no y si satisface los ejes del desarrollo local.

Desarrollo, Istmo, Impactos

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Introduction

Public and social investment projects are agents of change, which theoretically seek to have an impact on improving the well-being and quality of life of the population, in terms of access to basic services (education, housing, health, security, clothing), technology, employment, wages, etc., through various strategies and lines of action. However, they are also defined as large-scale complex enterprises that usually cost millions of dollars, take a long time to develop or build, involve many public and private interests, turn the region in which they are installed upside down, and affect millions of people (Flyvbjerg, 2017). They also have a lasting impact on their environment, both socially and spatially, and on future generations (Eskerod & Ang, 2017).

These projects, whether economic corridors, hydroelectric plants, refineries, wind farms, roads, among others, involve the construction of large infrastructures and have proven to be a very important way to achieve the development of regions and countries, however, often the established objectives are not achieved, therefore, the results do not meet the needs of local communities, coupled with the effects that are generated in the environment, culture and lifestyle (Cuganesan & Floris, 2020).

It is here that various concerns arise, as these projects generate a variety of impacts, some positive (mainly in regions, states and countries) and others negative (particularly in local communities), depending on the perspective from which the project is viewed, which come before the generation of the impulse for local development where controversy arises for various stakeholders, as for some these projects generate development and for others dependence, according to historical data, which in turn leads to local resistance.

In this sense, various investigations have identified the most common negative impacts of project development, which are a myriad of fixed and variable costs related to transport, machinery, labour, accidents, traffic on the roads where the project is developed, among others, as well as the cost of the land used for the construction of the project, air costs which involve atmospheric pollution due to gas emissions from motorised units and noise emissions, and hydrological impacts.

External costs derived from the consumption of products from non-renewable resources and impacts deteriorating the land, mountains, flora, fauna, etc. (Korytárová & Hromádka, 2014).

These are often a catalyst for resistance from local communities due to their high economic cost, environmental threats and the lifestyle they are accustomed to leading on a day-to-day basis (Cuppen *et al.* 2016), leaving the expected benefits for development with less impact, although local communities do not have formal decision-making authority over projects proposed by the Presidency of the Republic, research indicates that resistance results in additional costs, prolonged delays, abandonment of projects, among other issues that hinder such development (Dewey & Davis, 2013).

Public investment projects in the international context

Within the international framework, a wide range of public and/or social investment projects have been implemented over the years, with the aim of generating development in the regions or areas of impact. However, in some cases there has been resistance from local inhabitants, despite the fact that their implementation is justified and publicised by the authorities, in order to achieve a common goal, which is to generate local development that will theoretically benefit the different stakeholders, including society in general. In the world there are well known public and/or social investment projects, which are analysed and mentioned below.

Panama Canal

The Panama Canal, a consolidated public investment project (megaproject) formally inaugurated in 1914, is strategically a meeting point for the most important trade routes, containerised cargo, grains, oil and its derivatives, among other products, being a fundamental part of the supply chain between East and West (Intracorp, 2006).

Some of its main trade routes (Figure 1) that make use of the canal are from the east coast of the United States to the Far East, from Europe to the west coast of the United States-Canada and from the east coast of the United States to the west coast of South America (Micanaldepanama.com, 2018).



Figure 1 Panama Canal trade routes
Source: (Micanaldepanama.com, 2018)

This Canal unites the American continent and optimises world maritime navigation, reducing times and distances between consumer and producer countries, which is why this global logistics centre favours economic development in the areas through which it passes, since its commercial movements, per year, produce 11,000 million dollars in imports and exports, with more than 2,000 established companies and more than 400 hectares (Sabonge & Sánchez, 2009).

However, the impact is not only economic, it has also generated various benefits over time, for example in the period between 1939-1946 commercial traffic was reduced but gave way to the production of liquor, sugar, milk and slaughtered livestock derived from its Canal connections (Valdés, 2021), likewise the Panama Canal is a driver of tourism whose average every four months exceeds 900,000 visitors, within them 79.3% are tourists, 13.1% cruise passengers and 7.6% day visitors (Office of the Comptroller General of Panama, 2016).

On the other hand, approximately 60% of the budget allocated for the construction of roads, schools, hospitals, aqueducts, sewage systems, etc., comes from the Panama Canal (El Faro, 2006), which undoubtedly proves the importance of the project in contributing to the development of the inhabitants of the communities in the areas of influence of the Canal.

China's Special Economic Zones

At the end of the 1970s, China implemented a solid policy of innovation in the country, which over the last four decades has led to economic growth indicators of over 8% per year. This policy proclaimed the construction of four special economic zones in the south-east region of China (Orozco, 2009).

According to Graham (2004, apud Orozco, 2018), the creation of Special Economic Zones emanated in the 1970s with the investment drive. The main strategy within this investment drive was to attract technology, as the industrial sector lacked it, and in turn improve services within the country. It is a set of economic zones focused on agricultural, industrial, trade, housing, tourism and services; primary export management with a focus on tourism; and foreign and domestic organisations.

The foreign direct investment that the Special Economic Zones have brought to China has contributed to the development of communities by improving the quality of life in different ways, such as modifying the export process in heavy industry, generating profits in the tourism sector, innovating business procedures, increasing employment, strengthening human capital, boosting the development of industrial sectors and addressing globalised market trends in the scientific, technological and economic areas (Orozco, 2009).

Gibraltar-San Roque Refinery

The Gibraltar-San Roque refinery arose due to the priority needs of the inhabitants of Campo de Gibraltar, to confront the economic and social depression that prevailed in the area, in addition to other political restrictions.

This is how the Campo de Gibraltar Development Plan was created, where it was decided to build the refinery on property in the Bay of Algeciras, specifically in the municipality of San Roque.

Today, the refinery is an integral industry, not only with its petrochemical activities, but also with the rest of the surrounding complexes in the area, to which it supplies energy resources.

It has the unique feature of integrating a significant petrochemical area and lubricant manufacturing facilities, so that the units produced go beyond the refining facilities. It covers an area of 1.5 million square metres and its maximum distillation capacity is 12 million tonnes of oil per year and 337 million euros in a semester (EuropaSur, 2021).

At the same time, its activities not only have an impact on the economic development of the region, but also improve the living conditions of the people, mainly from the closest communities, as the workforce is made up of 84% inhabitants of the province of Cadiz, 13% from the rest of Spain and only 3% foreigners. It has a training school where more than 200,000 hours a year are taught, updating and training human capital in the area. Similarly, the refinery supports cultural, sporting and social activities. It is socially responsible as it supports the "Marillac Home", an organisation that supports people with AIDS, the "New Future" orphans' home and the Botafuegos prison, which are subsidised by the refinery. Likewise, there is a canteen for indigenous people "El Carmen" in Algeciras, as well as the "Centro Español de Solidaridad" for the prevention of drug addiction.

In order to preserve customs, it promotes a significant number of activities, sponsoring festivals, literary works, science and art fairs, as well as supporting archaeological research (CEPSA, 2021).

Public investment projects in southeast Mexico

Public investment projects to boost development in the Mexican southeast began with a project for inter-oceanic communication in the Isthmus of Tehuantepec and the state of Veracruz, which was first proposed in Hernán Cortés' Fourth Letter of Relation. According to García (2019), the project continued in the treaty (Mc Lane-Ocampo) which Benito Juárez signed with the United States. The project was originally designed for trade between the Pacific Ocean and the Atlantic Ocean, but it did not last long as it only functioned from 1907 to 1914, since at the end of that year the Panama Canal was inaugurated, which monopolised international commercial transport through the Isthmus (Oropeza, 2019).

Likewise, when General Porfirio Díaz was president of the Mexican Republic in this area known by many as "the belt of Mexico", he wanted to carry out an ambitious mega-project that would link the Pacific Ocean with the Gulf of Tehuantepec. In the first instance, the idea was to build a maritime route through a canal, but due to the morphology of the land and the high seismicity of the region, it was decided not to proceed, instead it was concluded that the ideal solution was to build a train.

In 1967, President Gustavo Díaz Ordaz encouraged the exchange of goods between oceans with freight transport, starting with the construction of the Pajaritos petrochemical plant in Coatzacoalcos, Veracruz. Three years later, in 1977, José López Portillo promoted the Alfa-Omega plan by means of a railway route through the Isthmus using containers. During his term of office, he opened the Cangrejera petrochemical plant and the Salina Cruz Refinery. In 1985, during the presidency of Miguel de la Madrid, the construction of the Nueva Teapa Salina Cruz pipeline began. In the following years, President Ernesto Zedillo wanted to revive the project under the name Plan Alfa Omega, and during the six-year term of Vicente Fox, an attempt was made to promote it under the name Plan Puebla Panama.

In 2007, President Felipe Calderón announced the Isthmus Logistics System to tender container terminals in both ports and the operation of a modern freight railway accompanied by a multimodal corridor. In 2013, Enrique Peña Nieto announced the Isthmus Gateway to America Plan and its follow-up through the Exclusive Economic Zones announced in 2016 (Contreras, 2020).

It should be noted that all of these projects have been opposed at the time, with the aim of preserving and caring for the lives of the 12 indigenous peoples of the Isthmus region in both states (Oaxaca and Veracruz). Today, these peoples are resisting the proposals of the current president of Mexico, Andrés Manuel López Obrador, who published the book *Un proyecto alternativo de Nación* in 2004, in which he outlines a comprehensive programme for the development of the Isthmus.

Public investment projects in the Isthmus of Tehuantepec, Oaxaca

The first action to promote the development of the Isthmus of Tehuantepec dates, as already mentioned, from the intention to connect the trade between oceans since the letters of relationship written by Cortés between 1519 and 1526, then it gained strength again more than 100 years ago, specifically when the railway linking Salina Cruz with Coatzacoalcos was installed, with a flow of 60 trains a day, which only lasted from 1907 to 1915 when the Panama Canal was inaugurated and the transformation was irreversible.

In 1938, the mouth of the Port of Salina Cruz was reopened and the fishing fleet and the arrival of oil tankers began activities, expecting development, but instead it brought sensitive effects on the social fabric and regional economies at both ends of the Isthmus, as well as fragile ecological imbalances (Programa de Desarrollo del Istmo de Tehuantepec, 1990).

The harmonisation of this new development with agricultural activities once again became a conflict and a challenge when the Benito Juárez Dam was built and the 19th Irrigation District was created, as well as the Santo Domingo sugar mill, which was added to the Espinal sugar mill and 34 industries established between 1940 and 1980. Similarly, as a result of a thorough proposal in 1975, the project of the refinery "Ing. Antonio Do valí Jaime" was initiated, which would consist of three stages so that the start-up of the primary plant would be in 1978, which was intended to lead to economic development for the region as it produces 350 thousand barrels per day, petrochemicals and gasoline to feed the Pacific ports from where they are distributed to load gas and a space to attend tankers supplied with petroleum products from Coatzacoalcos (SCT, 2017).

It is well understood that these projects had not been successful due to the lack of attention to the needs, perceptions and concerns of local inhabitants.

In short, since 1990 the Constitutional Government of the United Mexican States has had in mind the implementation of initiatives that generate the integral development of the region, since the Isthmus represents, and perhaps synthesises, the challenges that socially, but also economically and politically, impose access to a qualitatively different development, to a more just, participatory and stable collective existence, built and guaranteed by the efforts of society as a whole (PDIT, 1990). Now, more than 30 years ago, the possibility of development in Tehuantepec was sought through the Development Programme for the Isthmus of Tehuantepec (1990), by means of six agreements that would make up this integrality:

- Regional Agreement for Welfare and Urban Redevelopment
- Regional agreement for agricultural and forestry development
- Regional agreement for water use and development
- Regional agreement for the modernisation of communities
- Regional agreement for the modernisation of fisheries and aquaculture.
- Regional agreement for industrial and commercial development

Likewise, in 1996, the integration of projects to promote the development of the Isthmus of Tehuantepec was presented, proposing alternative investment projects to the Panama Canal (integration of productive chains, selected detonators, etc.), evaluating the current transport infrastructure in the Isthmus and proposing a new development in the Isthmus. And now actions are once again being implemented in this territory, in particular with the so-called Interoceanic Corridor, which points out public investment as one of its main strategies, with the aim of boosting development in the south-southeast of the country.

This project according to Candelas, (2019), in the informative folder 119 of the Interoceanic Corridor project points out that it consists of seven stages, starting with the modernisation of the old railway route that currently connects the cities of Coatzacoalcos, Veracruz and Salina Cruz, Oaxaca, once this stage is completed, the goods train will have a capacity to transport 300,000 tons per day.

The project contemplates the installation of a fibre optic network; modernisation of the ports of Coatzacoalcos and Salina Cruz; rehabilitation of the refineries of Salina Cruz and Minatitlán; installation of industrial parks in the Isthmus corridor; attraction of industrial and service companies, as well as the creation of a free trade zone.

This project is part of the programme for the development of the Isthmus of Tehuantepec (Table 1), which includes 12 objectives that will be achieved during the development of this project.

Infrastructure in the Multimodal Corridor		
Transisthmian Train + Ports + Roads + Airports. + Connectivity + Supply of services + Global network of means + transport systems Keys to understand the project as a social issue.		
1. Improved living conditions of the population.	2. Participation and alliance of the population in strategic projects.	3. Inclusive and sustainable economy.
4. Respect for the integrity of indigenous peoples.	5. Respect for the environment.	6. Harnessing the social and cultural wealth of the people.
7. Implement a new concept of development.	8. A new model of economic growth that distributes national income.	9. Breaking old inertias that generate inequalities between the country's regions and social groups.
10. New bases of social and solidarity economy.	11. Productive projects that generate employment and income for the local population.	12. Identity, pride and preservation of local identity and culture.

Table 1 Programme for the Development of the Isthmus of Tehuantepec

Source: (Candelas, 2019)

Originally this project covered 79 municipalities in Oaxaca and Veracruz; however, the most updated version of the project has been expanded to 99 municipalities to cover two more states: Chiapas and Tabasco. In addition, as part of the route, it is intended to connect the train line with the Tren Maya route that goes to Mérida and Valladolid, Yucatán, in order to achieve development not only for the region but for the country as a whole.

Resistance to public investment projects

Historically, large initiatives to generate development, known as public investment projects, have generated various groups of opposition or resistance, from different perspectives and with different levels of influence. "Given the complex characteristics of the urban territory, an irruption of such magnitude is at odds with the interests of third parties, be they residents and local economic activity or environmental conditions" (Bernabe, 2019).

Likewise, research such as that of Gómez (2019) indicates that "generally, state decisions regarding when, where and how to exploit natural resources or promote public investment projects are justified in the name of the interests of the nation, which are often interpreted as reflecting the interests of the majority. Hence, the conclusions are up to each indigenous people".

In the same context, Isla (2022), in his research on the impacts of extractivism on populations in Central and South America, concludes that "most of the projects are paid for with bank loans granted to the state to benefit corrupt local officials and international mafias. Cultural and natural heritage (oil, mining, air, water, forests, landscapes, etc.) are expropriated by multinational corporations. Signed international consultations (Convention 169, OAS and other UN resolutions) become meaningless. Moreover, when Latin American citizens protest, they are killed or disappeared by the police and their undercover agents, as well as by paramilitaries in some countries.

Or the article by Silva (2017), which analyses resistance against the arrival of capitalism, indicating that "resistance as a characteristic of the defence of territoriality not only becomes an alternative for survival but a way of life to perpetuate in a dignified and cosmogonic way the relationship that humans have with the Earth".

As a result, various articles (example in box 2) make evident the resistance of local communities, so that these projects do not generate negative impacts.

Name of article	Variables	Author (es)
Megaprojects in consultation: rights or simulations?	Opportunities and risks of megaprojects	Gasparello, Giovanna (2020).
Indigenous consultation: a prelude to dispossession or a strategy for the defence of their territories?	Type of indigenous consultation	Gómez, Magdalena (2019).
The EZLN's defence of territoriality in the face of socio-environmental capitalist development	Territory at risk of dispossession	Silva, Marcos (2017).
Is the Sustainable Development Goals (SDG) index an adequate framework to measure the progress of the 2030 Agenda?	Neoliberal project	Díaz, José; Jato, Daniel; Castro, Daniel. (2017).
Investigating perspective taking when infrastructure megaproject teams engage local communities: Navigating tensions and balancing perspectives	Indigenous peoples	Cuganesan, Suresh; Floris Maurizio. (2020).
"They will not automatically benefit": The politics of infrastructure development in Laos's Northern Economic Corridor	Defence of territoriality	Dwyer, Michael. (2020).
Urban megaprojects from the second half of the 20th century, their social and political implications in Mexico City.	Global development indices	Bernabé (2019).
Political subjectivation in the struggle against wind megaprojects in the Isthmus of Tehuantepec.	Effective assessment of the implementation of the 2030 agenda	Tripp (2019).
Urban infrastructure megaprojects, social impact and social movements, case study: "Mexico City's new airport" (2000 -2019).	Perspectives of megaproject teams	Ulloa (2019).
Megaprojects and dispossession of territory in the Tarahumara region	Perspective of communities	Ávila (2018).
The sense of community and the construction of megaprojects: the case of the thermoelectric plant in Huesca, Morelos.	Effectiveness of megaprojects	Hernández (2016).

Table 2 Investigations of public investment projects

Source: Own Elaboration

Unit of análisis

This research had as its unit of analysis the region of the Isthmus of Tehuantepec, Oaxaca, which according to COPLADE (2017), covers an area of 20,755.26 km² and is subdivided into 41 municipalities grouped into two districts: Tehuantepec and Juchitán (Figure 2).



Figure 2 Isthmus of Tehuantepec region

Source: CIESAS, 2014

Likewise, the region represents the second largest population concentration in the state (629,036 inhabitants) and constitutes 15.9% of its total population. The municipality with the largest population is the H. Ciudad de Juchitán de Zaragoza (98,043 inhabitants) and the smallest is San Miguel Tenango (729 inhabitants).

In the 41 municipalities of the region there are 1,352 localities, counted in the 2010 Population and Housing Census. The population is concentrated in the Tehuantepec-Juchitán-Ixtepec corridor, but is also widely dispersed in mountainous and jungle areas, 39.9% of the region's population is located in cities and 33.1% in towns with 1 to 499 inhabitants, which are generally rural and difficult to access.

Within the same context, the Isthmus is dominated by the indigenous population of the Zapotec, Mixe, Chontal, Huave and Zoque ethnic groups. There is a concentration of the population aged 3 and over who speak an indigenous language (32.8%), a figure very similar to the state average (32.2%), and more than 60% of the population considers itself indigenous, a figure lower than the state average of 65%.

However, the Isthmus region has great potential in the wind energy industry, and in 2015 there were close to 1,000 wind turbines in 23 wind farms controlled by 10 companies, including the Federal Electricity Commission (CFE) (COPLADE, 2017).

Method

A documentary study was carried out with historical data in order to analyse the development and resistance of the communities of the Isthmus of Tehuantepec to public investment projects and to derive the required knowledge, with the aim of understanding and deepening our understanding of the problem.

The historical results of public investment projects were analysed according to the dimensions of local development, which is a "participation scheme to promote strategies and mechanisms for the satisfaction of the basic needs of the population or a methodology that promotes the intervention of all social actors working towards a single objective: to develop human resources so that, as active subjects, they can be protagonists of the changes that society requires" (Moreno, 2003, apud Miguel *et al.*, 2011) that should be integrated into all public investment projects. These dimensions are:

1. Culture
2. Environmental
3. Social
4. Political
5. Gender
6. Economic
7. Tourism

In this stage, use was made of the content analysis method, which is based on the principles of objectivity, quantification and systematisation of content, adding the interpretation and inference of data derived from the reference environment. This was done through the analysis of consolidated public investment projects, under development and past development plans and programmes in the Isthmus of Tehuantepec, Oaxaca (Cea, 1996, apud Ortega & Heras, 2021). On the same basis, a descriptive-explanatory scope was estimated, since the objective of this study was to describe situations, contexts and events based on the negative and positive impacts of public investment projects implemented in the Isthmus of Tehuantepec region.

Conclusions

Among the distinctive features of public investment projects are the diversity of impacts, actors and interests that may be involved in or affected by their construction or implementation, which is why there may be resistance from certain interest groups, including people living in settlements near the project.

In this regard, some research currently indicates that due to the complexity of public investment projects due to their impacts, the high political and social interest, as well as the large number of people involved, leadership is generally unclear or not clearly identified (Denicol *et al.*, 2020), since their management or development involves different teams, such as joint ventures, consortiums and governments, which increases and varies the information, communication, stakeholders, etc., and consequently, the entropy of the projects (Jones & Lichtenstein, 2009).

Then, as a result of this entropy generated by the multiple situations mentioned above, it has been proven that this generates distrust on the part of local inhabitants and consequently resistance to these projects, which often causes them to fail so often (Cerić *et al.*, 2020).

This distrust in turn generates fear as exemplified by Pazarán (2021), in his thesis on resistance in the Isthmus of Tehuantepec where he addresses the matrix of capitalism, stating that "everything becomes objectifying and interchangeable, permanently available as a commodity; thus, the world becomes a network of objects and commodities that has no experience of limits or brake on desire fed into the market as a necessity; emanating desires that will never be fully satisfied" by the orchestrators of public investment projects.

Similarly, it is worth noting that achievements to mitigate negative impacts, such as reforms, regulations or policies that assess environmental and social impacts to protect local communities, have been the product of resistance and struggles between development banks, governments, civil society actors and local people over these infrastructure projects (Dwyer, 2020).

Consequently, it can be concluded that various international research identifies that different types of public investment projects can serve as a means to promote development in regions, leading to various collective benefits, such is the degree of relationship with development, that The Economist (2008) announced that "the biggest investment boom in history is underway", where it is estimated that 57 trillion dollars will be spent on infrastructure investments between 2012 and 2030 (Flyvberg, 2017), however they also describe many types of repercussions stemming from the historically poor performance of public investment projects with insufficient community involvement in project planning and implementation by the project team (Dewey & Davis, 2013), impacts on the environment, culture, customs of local inhabitants, without taking them into account, thus causing resistance, which slows down and hinders the positive outcomes intended.

Within the same framework, in research at the local level, the problem addressed is similar, since on the one hand, on the positive side, it is confirmed that they are a fundamental means to achieve socio-economic results, managing to reduce inequalities in various aspects, but at the same time, with the precedents experienced in Mexico derived from the methods and tactics employed, The results that have been achieved to generate development have not fulfilled their objectives, much less met the expectations of the local inhabitants, which often provokes resistance manifested in protests, community conflicts, disagreements, among other circumstances, causing delays and budget overruns in the projects.

In this context, the point of congruence between authors lies in emphasising the negative impacts that these projects generate, mainly due to the resistance that does not allow the free flow of actions on the part of those in charge of projects, caused by historical events, the way in which they develop and impose decisions. In this way, it is pertinent to analyse the results obtained by the various public investment projects implemented in the area of analysis and, with the data obtained and the design of the inter-oceanic corridor project, to identify prospective scenarios in future research that visualise and document the possible benefits, to be disseminated among the inhabitants of the surrounding communities and to be able to anticipate actions to take advantage of them and promote local development.

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The impact of social responsibility on organizational legitimacy

El impacto de la responsabilidad social en la legitimidad organizacional

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Abstract

As part of the strategies that companies implement to stay current and comply with international guidelines is social responsibility. The objective of this research is to analyze the factors of social responsibility that lead to the construction of the organizational legitimacy of companies in Ciudad Obregón. The importance of this research focuses on verifying to what extent the social responsibility activities carried out by companies lead to legitimization. As part of the intellectual merit and the contribution that this research intends to make to knowledge is the quantitative measurement of the organizational legitimacy variable, this variable has been measured in studies that come from European countries, so it is intended to analyze the variable in this country. The research is non-experimental quantitative, cross-sectional correlational, the hypotheses of this study will be verified through the structural equation model (SEM). Among the findings identified, it is found that legitimacy is explained by 45% by the dimensions of social responsibility of socially responsible companies in Ciudad Obregón, identifying that the social activities they promote are the key factor for the perception of the legitimacy of said companies.

Dimension, Social responsibility, Legitimacy, Structural equations

Resumen

Como parte de las estrategias que implementan las empresas para mantenerse vigentes y cumplir con lineamientos internacionales se encuentra la responsabilidad social. El objetivo de esta investigación es analizar los factores de responsabilidad social que conducen a la construcción de la legitimidad organizacional de las empresas de Ciudad Obregón. La importancia de la presente investigación se centra en comprobar en qué medida las actividades de responsabilidad social que llevan a cabo las empresas conducen a legitimarse. Como parte del mérito intelectual y la contribución que pretende aportar esta investigación al conocimiento es la medición cuantitativa de la variable legitimidad organizacional, dicha variable ha sido medida en estudios que provienen de países Europeos, por lo que se pretende analizar la variable en este país. La investigación es cuantitativa no experimental, correlacional de corte transversal, las hipótesis de este estudio se comprobarán a través del modelo de ecuaciones estructurales (SEM). Entre los hallazgos identificados se encuentra que la legitimidad es explicada en un 45% por las dimensiones de la responsabilidad social de las empresas socialmente responsables en Ciudad Obregón, identificando que las actividades sociales que fomentan son el factor clave para la percepción de la legitimidad de dichas empresas.

Dimensiones, Responsabilidad social, Legitimidad, Ecuaciones estructurales

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Introduction

In recent years, the increase of companies recognized as socially responsible has been constant, as well as the integration of best practices in their sustainability reports, according to the report published by International Business Report (2017), companies that issued best practice reports following the Global Reporting Initiative (GRI) model worldwide, increased from 44% in 2011 to 57% in 2017.

In the case of Mexico, the report reflects that 75% of the leading companies that present their Social Responsibility reports under the GRI methodology agree that sustainability should be integrated into financial reports, according to the IBR report. However, despite the results, there is a questioning by social groups about the validity of the numbers in the published reports, because at the same time that the number of companies that publish their sustainability reports increases, the social, economic and financial crises of the last years also increase, which implies a discussion about the legitimization process and the impact that such actions can generate in the companies.

With the passage of time, companies have begun to improve their internal and external practices, and these strategies have become an axis in which they insert their Social Responsibility activities, mostly oriented to mitigate social problems and reduce environmental impact; however, despite the great progress in the application and dissemination of these activities, it has not been possible to measure the impact that this generates in the legitimacy of these organizations before their stakeholders, which is gaining strength in the academic and business environment.

According to the International Business Report (2017), for which more than 2,500 interviews were conducted with leading entrepreneurs in social responsibility in 34 economies around the world, in a period from 2008 to 2014, it was identified that beyond financial results, customer demand is the key driver in the movement towards a development of socially sustainable business practices.

On the other hand, in academia, most of the literature on CSR in developing countries focuses on the social issue (Visser, 2008), these countries where globalization, economic growth, investment and business activity are likely to have greater impact by addressing social and environmental issues (World Bank, 2006).

Although the literature frames the debate on organizational legitimacy in a global context, there is still little empirical research on the nature and scope in developing countries, Vives and Peinad (2011) point out that the social responsibility agenda in Latin America has been very marked by socioeconomic and political conditions, which is due to the fact that these situations have tended to aggravate environmental and social problems, such as deforestation, unemployment, inequality and crime. The importance of the legitimacy of companies, the way in which they are carrying out their social actions, the disclosure of information in the annual sustainability reports and the legitimacy of such social actions highlight the importance of empirical studies that outline an overview at the national level on how social responsibility has a significant impact on the construction of legitimacy in organizations before their stakeholders.

Therefore, there is a need to know the differences that occur between the dimensions of social responsibility and the legitimacy of organizations. Likewise, legitimacy has been studied under a multidimensional concept (Thomas, 2005), authors such as Díez, Blanco, Cruz and Prado (2014), Chung, Berger and DeCoster (2016) have presented their proposals on the effects of CSR on legitimacy, but the impact it has on each dimension of social responsibility has not been identified. This knowledge would allow organizations to direct their efforts towards those dimensions that increase the organization's legitimacy to a greater degree and strengthen the dimensions that are less supported.

However, there are studies that have analyzed different aspects involving the concept of legitimacy, such as Meyer and Rowan (1977), Zucker (1987), Zimmerman and Zeitz (2002). Some of these authors affirm that legitimacy represents a key success factor for the survival of organizations.

There is research that has analyzed different aspects of legitimacy in the field of organizations, where strategic actions that improve their legitimacy have been identified, such as Suchman (1995) and Zimmerman and Zeitz (2002), it has not been identified in the literature through empirical studies in Mexico if the initiatives supported by socially responsible companies to mitigate social problems have an impact on the legitimacy of these companies. The intellectual merit of this research is to try to quantitatively measure the organizational legitimacy variable, a variable that has been scarcely measured in European countries, with which we intend to contribute to the knowledge of the study of the legitimacy variable in this country.

In recent years, emphasis has been placed on trying to recognize the way in which organizations argue that social responsibility is strategic, as well as the way in which they manage their social actions to legitimize themselves before their stakeholders; however, the percentage of companies that disclose the amounts they invest in the development and implementation of socially responsible actions is still low. There are consulting agencies that recommend companies to avoid risks through the attention and fulfillment of the expectations of their stakeholders, but on the other hand they neglect the opinion that consumers have about certain companies, that prioritize the example of large corporations in sustainability, but leave out the obstacles faced by small and medium-sized companies in the search for this path.

In spite of the work carried out by the organizations in charge of promoting the benefits that companies can achieve with the implementation of social responsibility and of large companies to maintain their position in the market and before their stakeholders, what has not yet been evaluated is to what extent social responsibility leads to the construction of organizational legitimacy in the companies of Ciudad Obregón. Therefore, the main objective of this research is to analyze the factors of social responsibility in its three dimensions (economic, social and environmental) that lead to the construction of organizational legitimacy of companies in Ciudad Obregón.

Research Hypothesis

H1: Social responsibility contributes to the construction of organizational legitimacy.

Institutional theory

Institutional theory studies organizations and explains the reasons why they share certain characteristics with each other in the organizational environment. DiMaggio and Powell (1983) define the organizational domain as the set of key attributes that make up organizations such as suppliers, consumers of resources and products, regulatory agencies and other organizations that produce similar products or services" (p. 147). Referring to Oliver (1991) Carpenter and Feroz (2001) emphasize that institutional theory views organizations as a set of firms operating within a social framework of norms, values and assumptions that are taken for granted in society.

For Deegan (2009) institutional theory links organizational practices with CSR and other accounting practices, with the values and norms of the society in which the organization operates. This connection ultimately leads an organization to the need to maintain, gain or regain its legitimacy through the legitimized practices that organizations implement, thus organizations adopt institutional practices (Dillard *et al.* 2004). They voluntarily disclose their CSR activities and promote volunteering in organizational activities through which they are considered part of institutional practice (Idem, 2009).

Legitimacy theory

Legitimacy theory refers to organizations ensuring that they are operating in accordance with the norms that society establishes as acceptable (Deegan, 2009). This explains that legitimacy theory assumes that there is a "social contract" between an organization and its stakeholders (Deegan 2006; Samkin and Schneider 2010). This social contract is responsible for ensuring that an organization operates within the limits and norms established by society itself or by society's expectations. Thus, organizations try to ensure that these terms are not breached in order to keep their legitimacy intact, as this allows the organization to continue to exist.

The legitimization strategies outlined by Lindblom (1994) can be applied by adopting Corporate Social Responsibility (CSR) activities and disseminated through the publication of their own financial or sustainability reports.

This strategy implies that through CSR disclosure, organizations seek to communicate their legitimizing actions (Deegan 2006; Deegan and Soltys 2007). As Tilling (2004) states, there are two currents in legitimacy theory: one is a broader perspective and the other is a narrow perspective. The broader perspective, generally identified as the "macro theory" of legitimacy theory or institutional legitimacy theory, is concerned with how organizational structures have gained legitimacy in society at large. This perspective was preferably informed by Marxist thought (Tilling 2004; Gray *et al.* 2010).

For their part Guthrie and Parker (1989) apply legitimacy theory in trying to explain disclosures over 50 years of CSR activities as evidence for the explanation of legitimacy theory in a leading organization in the Australian mining industry. Finally, the results concluded that the legitimacy theory could not be confirmed in this particular corporate case (p.351). O'Dwyer (2002) obtained similar results in a study analyzing managers' perceptions of the benefits of CSR reporting and whether CSR reporting would be a successful legitimacy strategy. The findings confirm that CSR reporting cannot be considered a success.

In relation to the results mentioned above, the main limitation of the theory is its ambiguity in the area of CSR, in the literature it has not been possible to identify what type of CSR activities could be disclosed to improve legitimacy, therefore the legitimacy theory is the theoretical perspective most commonly used in studies on the relationship of these variables (Tilling 2004; Thomson 2014).

For its part, stakeholder theory states that Managers in an organization try to satisfy the expectations of the stakeholders who control the critical resources required by the organization. The more critical the stakeholder demanding the organizations resources the greater the managerial effort the organization must expend to satisfy the expectations of those stakeholders (Deegan 2009). This perspective can be employed in an organization-centric approach, (Gray *et al.*; 2010).

From the managerial perspective, an organization is expected to inform in the first instance the group with the most influence or power in the organization about the management it carries out, instead of informing all stakeholders as an ethical perspective.

In this managerial perspective, stakeholder activism or participation is considered of utmost importance to the organization, which can positively or negatively affect the company (Murray & Vogel 1997).

The main challenge of this perspective is to identify who their critical stakeholders are, to whom they are accountable and to what extent accountability extends (O'Riordan & Fairbrass 2008). Likewise, the managerial perspective of stakeholder theory focuses primarily on managing the relationship between an organization and its critical stakeholders. Unlike the ethical perspective, the organization-centered perspective of the managerial perspective of stakeholder theory can be, and often is, tested by empirical studies (Deegan 2009).

The relationship between legitimacy theory and social responsibility practices

The legitimization strategies proposed by Lindblom (1994) can be achieved by adopting social responsibility activities and publicizing them through sustainability reporting. Because organizations tend to disclose their activities through positive social responsibility behavior rather than negative news (Gray *et al.* 2010). This strategy implies that through the dissemination of social responsibility, organizations seek to communicate their legitimizing actions (Deegan *et al.* 2002; Deegan and Soltys 2007). In this way, it is a matter of recognizing the impact that these socially responsible actions have on the legitimacy of organizations.

Moreover, in today's social and political environment, corporate managers are expected to recognize the importance of the actions taken by companies in their duty to be a good corporate citizen (Cohen and Werbin, 2022).

Stakeholder theory

Stakeholder theory is a theory that deals with the relationship between an organization and its stakeholders. One of the pioneers in the use of this term was Ansoff (1965), but the term was adopted in the 1980s. From the publications of Freeman (1984; Freeman 1994; 2005); Donaldson and Preston, (1995); Harrison and Freeman 1999; Carrol (1991), Carroll and Shabana (2010).

Freeman's contributions define the use of this theory as a purely strategic management methodology. This research also addresses this strategic and non-normative approach despite the fact that several studies have made proposals to unite the theories and strengthen the management of the ethical dimension of the company, the approach suggested here is at the strategic level.

On the other hand, around the stakeholder theory in the literature its application in different areas has been identified, one of them is CSR (Freeman 1984; Freeman 1994; Donaldson and Preston 1995; Harrison and Freeman 1999; Belal 2016). After several studies have identified the assumptions to this theory, among the most appreciated in the application of this is the ability conferred by stakeholders to put pressure on an organization in conjunction with activities and stakeholder attributes, since stakeholders put pressure on the organization because it has certain expectations about it. It should also be able to balance the conflicting interests of internal and external stakeholders.

Methodology

The present research will be quantitative with a correlational scope. The correlational study aims to answer the following research question: To what extent does social responsibility lead to the construction of organizational legitimacy in the companies of Ciudad Obregón? The purpose of this study is to determine the relationship between the dimensions of social responsibility and the dimensions of legitimacy.

The research will be of a non-experimental type since only the level of compliance with the subject of study in question will be measured and the variables involved in the present study will not be manipulated. Cross-sectional, due to the type of research, in which the data are collected in a single moment, in a single time, with a correlational-causal approach. For this research, socially responsible companies operating in Ciudad Obregón will be considered as the unit of analysis; the intention is to carry out a population-based study due to the number of socially responsible companies operating in the city.

For the design of this research, it has been decided to develop it in two phases, the first one through a qualitative study, which will consist of conducting a transcendent search in the literature on the variables involved to define the construct(s). The instrument is divided into three sections, the first with six questions related to general aspects of the companies, in the second section are the items that will measure social responsibility, for which 15 items were used which were an adaptation of the contributions of Bansal (2005); Chow and Chen (2011); Ramos, Manzanares and Gómez (2014) and Ayuso and Navarrete-Báez (2018), who measure CSR through the dimensions (economic, social and environmental) under a stakeholder approach.

Economic Dimension
1. Information about the company's products and/or services.
2. Supplier selection systems.
3. Preference policy for local suppliers
4. Complaint handling through effective procedures.
5. Anti-corruption policy
Social dimension
6. Employment of people at risk of social exclusion.
7. Policy for hiring senior executives from the local community.
8. Training and development of its employees.
9. Employee development plan, quality of life and benefits.
10. Safety and health programs.
Environmental Dimension
11. Use of consumables, in-process and/or processed products with low environmental impact.
12. Energy saving plan.
13. Activities related to the protection and improvement of the natural environment.
14. Plans to reduce the environmental impacts generated by the company.
15. Policy or procedure in favor of the use, purchase or production of environmentally friendly goods.

Table 1 Independent variable ítems

To measure the legitimacy variable, it will be adapted from Díez-Martín *et al.* (2013); Suchman (1995), as well as from the proposal of Alexiou and Wiggins (2019); which captures individual perceptions of pragmatic, moral and cognitive legitimacy. This measure allows capturing the perceptions of individuals involved in the implementation of CSR in their organizations. Twelve items will be used to measure this variable. The instrument will be measured using a 5-point likert scale.

L16. Attention to the interests of its members.
L17. Activities benefiting immediate stakeholders.
L18. Comparison with similar organizations in operation and management
L19. Comparison with similar organizations, understands the needs and concerns of its customers.
L20. Ethical behavior in their field.
L21.Importancia de la organización para la región.
L22. The operation promotes the common good.
L23. Policies and procedures to make the world a better place.
L24. This organization is necessary in the region.
L25. The activities are appropriate for the region.
L26. The activities have an essential function for the region.
L27. The policies are specific to their activity.

Table 2 Dependent variable items

Source: Adapted from Alexiou and Wiggins (2019) *Measuring individual legitimacy perceptions: Scale development and validation instrument. Strategic Organization*

The study subjects for this research are 19 companies located in Ciudad Obregón, Sonora, which were selected from the list of companies certified by the Mexican Center for Philanthropy (CEMEFI) that have the ESR label for the year 2020 and 2021, most of which belong to the transformation and services sector. The means of contact was through the managers and/or employees directly responsible for the implementation of social responsibility, it should be noted that the instrument was sent and answered through an online platform which was sent by email. The sampling selected for this research was by convenience, which worked because it was based only on considering representative data that could have an impact throughout the process (Gómez, 2012).

To measure the reliability of the constructs and the purification of data for the application of the surveys was through Cronbach's Alpha the result will allow to know the reliability and validity of each construct (environmental, economic and social) which are part of CSR and legitimacy. Likewise, in order to test the hypothesis of this study, the statistical tool Smart-PLS will be used through the structural equation model (SEM).

The hypothesis to be tested in this research is through the structural equation method is as follows:

H1: Social responsibility contributes to building organizational legitimacy.

Results

As a result of the application of the instrument, it was possible to determine the first model (Figure 1) which reflects that some items do not have the factor load required to measure the construct; therefore, it was necessary to purge them since they do not explain the dimension. The items eliminated are: Ec1, Soc 6 and M11, L18, L21, 23 and L27, the intention is to raise the factor loadings for each of the constructs which allows to improve the explanation of the results through a higher R2 result, also theoretically a value of 0.750 in Cronbach's α is acceptable. The alpha results for the first model are as follows; economic dimension 0.761, social 0.859, environmental 0.803 and legitimacy 0.899, which shows that the items are acceptable for data analysis.

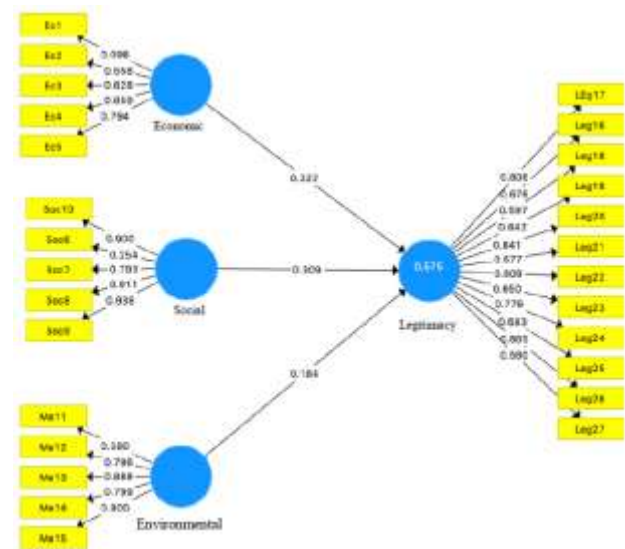


Figure 1 Statistical model, step 1, prior to debugging
Source: Own Elaboration

Once the aforementioned items had been filtered, the data were analyzed again to obtain the final model. The results show more robust data in two of the independent variables (economic and social dimension), but not in the environmental dimension, which was affected by the purification.

The values of the reliability indicators are shown in Table 3. It can be seen that both the composite reliability indices and Cronbach's α have high internal consistency in the three CSR dimensions analyzed.

Legitimacy has a Cronbach's α of 0.919, which is considered statistically acceptable. These results confirm that the dimensions used to measure CSR and legitimacy are reliable, thus verifying the internal consistency of the instrument. Convergent validity is considered to exist when the items correlate closely with the theoretical constructs (Gefen and Straub, 2005), for which the first criterion of validity is established through the analysis of factor loadings (Chin, 1998).

	Cronbach's alpha	Rho_A	Composite reliability	Average variance extracted (AVE)
Economic	.775	.793	.868	.688
Social	.909	.937	.936	.712
Environmental	.853	.894	.899	.690
Legitimacy	.919	.934	.937	.712

Table 3 Reliability and Construct Validity
Source: Own Elaboration

According to the results of the final model, the hypothesis of this research H1: Social responsibility contributes to the construction of organizational legitimacy and is explained by 63.9% of socially responsible companies in Ciudad Obregón. The economic and social dimensions have the greatest impact on the organizational legitimacy of the companies, with the social dimension being the one with the greatest contribution to the literature in this study.

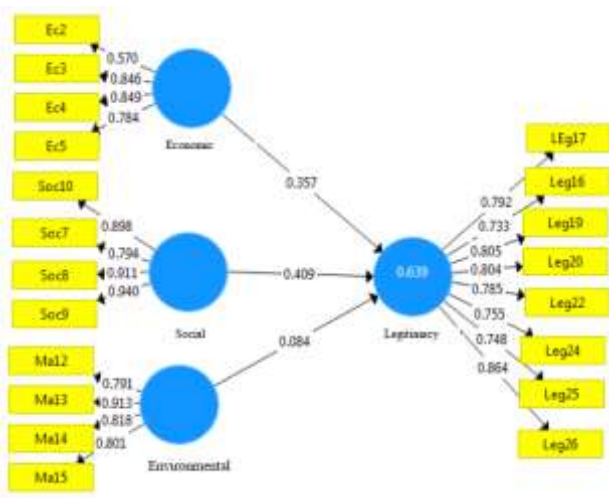


Figure 2 Final statistical model
Source: Own Elaboration

Blanco, Cruz, Díez and Prado (2014) point out that the results obtained showed a positive relationship between CSR and legitimacy.

In turn, organizations that have positive variations in CSR manage to improve their legitimacy through the implementation of strategies; therefore, the strategy that most influences legitimacy is CSR. Furthermore, previous studies such as those by Alcantara (2006) and Tornikoski and Newbert (2007) affirm that organizations are not passive elements in legitimacy, but that by working together they can drive and persuade the perceptions of the environment.

The measurement of CSR could be improved by expanding the data obtained through companies, internally and externally, in conjunction with company personnel and company consumers. In this sense, the analysis of legitimacy could be completed by taking into account the different dimensions that make up CSR. In this way, it would be possible to identify which dimension of CSR has the greatest effect on results, or which would have the greatest effect on legitimacy.

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Conclusions

The three dimensions of social responsibility (economic, social and environmental) were analyzed, which allows solving the research question: To what extent does social responsibility lead to the construction of organizational legitimacy in the companies of Ciudad Obregón? The social dimension is the factor with the greatest impact on the perception of legitimacy of socially responsible companies in Ciudad Obregón. With the analysis of the data, it was possible to identify that the social responsibility of the companies in Ciudad Obregón, measured through the three dimensions, has a 63.9% impact on organizational legitimacy.

It can be observed that the impact is representative considering that the environmental dimension did not have a representative impact on legitimacy. It was expected to find a similar impact among the dimensions demonstrating that the three dimensions could have a direct and significant impact on the organizational legitimacy of the companies.

To identify the social responsibility factors that are associated with the perception of organizational legitimacy in socially responsible companies in Ciudad Obregón, the results show that the objective of this research was satisfactorily achieved by analyzing the three social responsibility factors associated with the perception of organizational legitimacy, identifying that social actions are the key factor for the perception of legitimacy of socially responsible companies in Ciudad Obregón.

We conclude by noting that the activities carried out by socially responsible companies are a key factor for the perception of legitimacy and that they can increase their legitimacy in the eyes of society by investing more time and resources in these activities. It is important for companies to be aware of their CSR potentialities, which generate responsible management in their strategy, hoping to obtain competitive success.

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Taxkat, emblem for the conservation of Totonacapan**Taxkat, emblema para la conservación biocultural del Totonacapan**

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Abstract

This research is based on a theoretical and methodological effort to design conservation strategies for the *Mexican Scaptotrigona* (Guérin-Meneville, 1845) in Totonac communities in the State of Veracruz, Mexico. From the recovery of the ritual ceremonies related to the conservation of the stingless bee known as Taxkat (*S. mexicana*) and which refer to life, fertility, fidelity and well-being, the recovery of ancestral knowledge and the dissemination of management practices through the consolidation of a Network of meliponiculturists of Totonacapan that includes four indigenous communities belonging to the municipality of Papantla de Olarte Veracruz, which in the region are developing strategies for the recovery of ancestral knowledge and its preservation for future generations .

Conservation, Ancestral, Strategies, Bees**Resumen**

La presente investigación se fundamenta en un esfuerzo teórico y metodológico para diseñar estrategias de conservación de la *Scaptotrigona mexicana* (Guérin-Meneville, 1845) en comunidades Totonacas del Estado de Veracruz, México. A partir de la recuperación de las ceremonias rituales relacionadas con la conservación de la abeja sin aguijón conocida como Taxkat (*S. mexicana*) y que refieren a la vida, fertilidad, fidelidad y bienestar, se plantea la recuperación de conocimientos ancestrales y la difusión de prácticas de manejo a través de la consolidación de una Red de meliponicultores del Totonacapan que incluye cuatro comunidades indígenas pertenecientes al municipio de Papantla de Olarte Veracruz, que en la región están desarrollando estrategias para la recuperación de los saberes ancestrales y su preservación para las futuras generaciones.

Conservación, Ancestrales, Estrategias, Abejas

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Introduction

The stingless bee, *Scaptotrigona mexicana* (UNIBIO, 2009; Guérin-Meneville, 1845), is a native species of Mexico, is a hymenopteran of great importance not only in the biological context but also from the cultural perspective, mainly because of its use and management by pre-Hispanic cultures, particularly by the Totonacs, who know it by the name of taxkat (García *et al.* 2013). According to the bee catalog of Moure (2013), the species *S. mexicana* (Guérin-Meneville, 1845) is distributed from the States of Chiapas, Guerrero, Hidalgo, Morelos, Mexico, Oaxaca, Puebla, San Luis Potosí, Tamaulipas and Veracruz-Llave, in the Neotropical region of Belize(Cayo), Costa Rica (Cartago), and El Salvador; Guatemala (Alta Verapaz).

From an ecological point of view, stingless bees are considered important pollinators of native flora in tropical and subtropical regions of the world (Slaa *et al.* 2006). It is estimated that between 30 and 50% of wild plant species in the Americas, in the tropics and subtropics, depend on these hymenopterans to transport their pollen, and are also responsible for the pollination of around 200 species of cultivated plants of great importance to human societies (Aguilar, 2001).

The management of native stingless bees in a systematized way seems to have been a practice of the pre-Hispanic cultures of Mesoamerica. The ethnic groups of South America, due to their primitive characteristics of nomadic gatherers and hunters, were exclusively the collectors of nests established in the forest to obtain bee products such as honey, pollen and cerumen (González-Acereto, 2012). Similarly, during pre-Hispanic times, the Totonacs, as well as other peoples of the Mesoamerican area, the Huastec, Maya, Tepehuas, Nahua, among others, have lived together, domesticated and cultivated honey. In Mexico, stingless bees are widely known because they were cultivated in pre-Hispanic times, thanks to their docility, abundance and honey production (Guzmán-Díaz *et al.*, 2006). Currently, *S. mexicana* colonies are mainly conserved to produce honey, appreciated for its exquisite flavor and use in the preparation of traditional remedies, and wax that is used as an insulator and teaching material in schools (Obregón-Hernández and Arzaluz-Gutiérrez, 2002).

In the present context, Totonac culture offers a unique condition of expressions, a *continuum* between nature and culture. It is here where the importance of the wisdom of indigenous peoples to make use of their natural resources arises from the understanding that nature is sacred. Totonaca communities live the link between cultural and natural heritage. Although their worldview obeys the hierarchy structured by deities and owners, their understanding of the world is manifested in an emerging holararchy, in which there is not, as its name indicates, a concept of superiority but of coexistence and cooperation between the various forms of life (García *et al.*, 2013). This encounter between the natural and cultural worlds involves a conservation strategy and implies an effective interpretation of reality in the face of the current world order.

The new world order is nourished by false conceptions, by ways of perceiving the world that conceive humanity as one-dimensional, based on the double Western myth: 1) the conquest of nature-object; and 2) the false infinity towards which economic growth is launched. The prevailing principles are those that feed economic efficiency, which constitute threats to the viability of civilization, such as competitiveness, specialization or the principle of comparative advantage, and the homogenization of systems and production. These principles have indeed made the economy more efficient in terms of cost/benefit ratios, but they undermine cultural and natural diversity, identity, cognitive democracy and inclusion.

In this context, this paper shows the scope of a research project conducted in the community of Gildardo Muñoz, in the municipality of Papantla de Olarte, Veracruz, focused on the conservation of the biocultural heritage of Totonacapan from the recovery of ritual ceremonies related to the conservation and management of the stingless bee, and that refer to life, fertility, fidelity and welfare of the communities.

Objective

To analyze the influence of disturbed landscape elements on the bee-environment system (*Scaptotrigona mexicana*), as a basis for the implementation of conservation strategies for this biocultural resource.

Specific objectives

- Identify the coverage of the main landscape elements and evaluate the potential floristic foraging resources for *S. mexicana*.
- To evaluate the retention capacity of stingless bees in each landscape element.
- Differentiate the effect of each landscape element on nest attributes and configuration, as well as honey production and quality of *S. mexicana*.
- Design a model for the appropriation of ritual ceremonies related to the traditional management of stingless bees.

Theoretical Framework

The stingless bee and its management in Totonaca culture

The management of the stingless bee in Totonaca culture is characterized by a set of symbolic practices that are historically constructed and legitimize a collective identity. The stingless bee has a relevant meaning in the identity and relationship of families and the community. The Totonacs have coexisted with them for generations, providing shelter, making them part of the family and using honey.

According to their ideology, in order to take honey from the trees, the Totonacs ask permission and show gratitude to 'Kiwíkgolo' and 'Kiwichat', the owners of the forest. Prior to the conquest of Mesaoamerica, the Totonacs already cultivated bush honey known as 'kiwitaxkat', a product that was used as a sweetener before sugarcane was introduced (García-Flores *et al.*, 2013). For honey management, the Totonac express descriptions of ancient rituals and festivals that confirm that honey and bees occupy a very important place in their ceremonial life and religious thought (García-Flores *et al.*, 2013).

Historically, the stingless bee is identified as the natural pollinator in the Totonacapan region, especially of vanilla. Totonacan grandparents mention that this bee contributed to the larger size of the pollinated vanilla pod compared to that which was pollinated manually (García *et al.*, 2013).

This fact is an indicator that vanilla was produced naturally and under ancestral techniques long before colonial times. It has also been documented that its honey was already being used as medicine by healers. From a cultural point of view, the stingless bee has a relevant significance in the identity and integration of families and the community. The Totonacs have lived with them for generations, providing shelter, making them part of the family and using their honey for the wellbeing of the family and the community. The preservation and conservation of Taxkat is a cultural practice that survives in the present time among our ethnic group.

The honey it produces has several uses and contributes to the health of the environment, food and the economy of the families in the indigenous localities. The stingless bee as an element of cultural preservation is justified based on the following dimensions: a) it is an indicator of individual, family and community well-being. There is evidence of its existence for more than four hundred and ninety-five years; b) its integration in Totonac families implies a series of cultural rituals and meanings with respect to the elements of the natural world; c) the use of honey is an indispensable element in traditional Totonacan medicine; and e) the recovery of ceremonies, techniques, knowledge and management of the stingless bee in Totonacapan is urgent.

Taxkat is one of the insects that has provided the most benefits to Totonac communities. At the time of the Spanish Conquest, approximately 495 years ago, the Totonacs were already producers of mountain honey known as kiwitaxkat, since it was the main sweetener for them before the introduction of sugar cane cultivation. Despite its importance, taxkat is currently in danger of extinction. This began because of the intervention of non-native vanilla producers and hoarders; seeing in vanilla the opportunity to make money, but lacking knowledge of the social and cultural aspects and ancestral knowledge, they mistakenly identified the bee as a pest and fought it with agrochemicals and pesticides.

The landscape and prospective of Totonaca meliponiculture

Landscape means more than a scientific instrument useful to describe the world (Hernández, L.; 2011:251). Although it has been understood as a concept, text, pictorial knowledge, aesthetic representation or as a geographical area for the administrative or political delimitation of regions, for the purposes of this research landscape is an analytical tool. It is conceived as an indivisible whole: "The cultural landscape is created by a cultural group from a natural landscape. The culture is the agent, the natural area is the medium, and the cultural landscape is the result" (Sauer, cit. By Hernández, L.; 2011: 253). In this way the landscape is a geographical space and an ideological and political construction.

Since the arrival of the Spanish in Mesoamerica in the sixteenth century, the native cultures underwent a radical change due to the displacement of labor from traditional activities to new forms of commercial and industrial activity. The introduction of extensive cattle ranching caused a gradual deterioration of native forests throughout Mesoamerica.

In the Totonacapan region, severe destruction of tropical forests occurred between the 16th and 20th centuries (Aguilar, 2011), with the latifundia system of large estates dedicated to monoculture cultivation. These monocultures need open spaces to develop. At the same time that the forest was cleared, the resources for nesting and foraging sites for native bees largely disappeared. However, some of the stingless bee species require large tree cavities for nesting (*Scaptotrigona mexicana* (UNIBIO, 2009; Guérin-Meneville, 1845), *Melipona beecheii* (UNIBIO,2011), *Scaptotrigona pectoralis* (UNIBIO, 2009; Dalla Torre, 1896), for example).

This decline has reached such a point that the wild nests of *Scaptotrigona mexicana*, *Scaptotrigona pectoralis* and *Melipona beecheii* have almost completely disappeared from the Totonacapan Region of the State of Veracruz, where the cultivation of corn, citrus and vanilla, among other crops, are intensive, together with the use of land dedicated to extensive cattle ranching.

Therefore, significant populations of *Scaptotrigona mexicana* (UNIBIO, 2009; Guérin-Meneville, 1845), *Melipona beecheii* (UNIBIO, 2011), *Scaptotrigona pectoralis* (UNIBIO, 2009, Dalla Torre, 1896), are distributed in some parts of the State of Veracruz that are currently limited to mostly indigenous meliponiculturists.

The context of this research is located in the municipality of Papantla de Olarte, Veracruz, Mexico, in the indigenous communities of Gildardo Muñoz, Cerro del Carbón, Plan de Hidalgo, La Sabana and Vista Hermosa. In this region, human occupation dates back to 1875 (Cortés, 2007) and it is in this area that meliponiculture or proper management of stingless bees is a traditional activity of great importance for the indigenous Totonaca people.

Methodology

The interest of this research lies in analyzing the cognitive system of the communities, the repertoire of their ecological knowledge that underlies their productive practices and their forms of interaction with biocultural resources. This will make it possible to establish the potential combinations of the practices derived from the knowledge so that they can result in sustainable development modalities (García Flores, 2013). The research was aimed at generating a self-management capacity in the community based on the knowledge of its territory.

An inventory of natural and cultural elements and their link to their quality of life, the analysis of their internal and external economic exchanges with the aim of creating their own organization (Boada, M. and Toledo, V., 2003). From the ethnographic perspective, fieldwork was conducted assuming a specific attitude or "ethnographic posture" (Ortner; 1995, cit. By Good; (2011), which implies an intellectual and moral position. The perceptions and appropriations of social actors are approached as a research tool, local processes and forms of resistance were contextualized. In the meeting with the communities, a map of meanings was constructed.

The project was developed in three stages: 1) Documentation of referential information regarding ritual ceremonies related to the stingless bee through a First meeting of indigenous meliponiculturists of Totonacapan in the community Gildardo Muñoz, municipality of Papantla de Olarte, Veracruz; 2) The conformation of a Network of Meliponicultores for the conservation of the native bee as a biocultural resource; and 3) Design of a model for the appropriation of ritual ceremonies related to the traditional management of stingless bees in Totonacapan.

Results

The activities had a significant scope, the work meetings allowed the foundation and documentation of the memory of the First Meeting of Meliponicultores. Likewise, the documentation that involves the topic of local medicinal plants allows the recovery of ancestral knowledge and can be taught through workshops to members of the community and/or the school. It should be noted that, as a result of this meeting, management strategies were developed with institutions to obtain resources that benefit the community. New forms of intergenerational conversation were constructed, thus visualizing the existence of a new school format that operates under a conception of education that corresponds to its original meaning. Common expectations and interests were organized and community criteria were established for collective decision making and planning, the convites were implemented, a new cooperative was organized and community bonding was strengthened.

As results of this project, the following can be listed: 1) collection of information on the collection and identification of medicinal plants for the establishment of a living pharmacy, 2) three meliponiarías, 3) Memory of the First Meeting of indigenous meliponicultores of Totonacapan, 4) workshops for the proper management of the stingless bee and on traditional medicine, 5) a course with students of basic education on the proper management of the stingless bee and 6) Network of meliponicultores.

With this information, the group developed their perceptiveness in a special way. This not only consisted in the expansion of their attention, observation and integration skills.

It is also experience and knowledge in motion. In the process, it has developed a sensitivity in which emotions are intertwined with reasoning and intuition. The following map (Figure 1) shows the distribution of meliponiculturists that make up the beginning of the Totonacapan Meliponicultores Network in the municipality of Papantla de Olarte, Veracruz.

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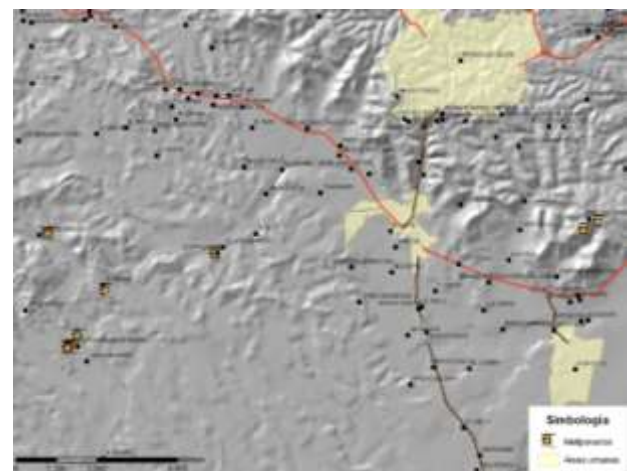


Figure 1 Distribution of the Melipon Farmers' Network

It is precisely in this municipality that a diagnosis of the traditional melipon farmers was carried out, the establishment of linkage mechanisms between communities was initiated and the creation of the Totonacapan Melipon Farmers Network was generated (Table 1).

Community	Meliponarios	Beehives
Gildardo Muñoz	4	250
Cerro del Carbón	2	89
Plan de Hidalgo	1	35
La Sabana	1	17
Vista Hermosa de Madero	3	92

Table 1 Inventory of meliponiarías and beehives in indigenous communities in the study área

Evidently, this effort is just one example of what is being done with the indigenous rural communities of the Totonacapan region around the management of a natural resource with cultural and religious value.

This example shows a way to recover Totonacan ritual ceremonies to conserve nature and ancestral knowledge through the traditional management of the stingless bee, which was shared during the first Meeting of Meliponicultores del Totonacapan.

The Network of meliponicultores that has been established has the following characteristics: a) They have the capacity of congregation, that is, they meet face to face and maintain a face to face concentration that strengthens their interiority; b) They have binding ties by virtue of their histories, traditions and rituals, their commitment is ethical; c) their organization is voluntary, by affinity and ideology with common actions and this gives them empowerment.

In this sense, as a consolidation strategy for the conservation of bees and to achieve the sustainable use of natural resources, it is proposed that management should not reduce or affect the potential future use of the species or other species, or the habitat that supports them, because this should be concomitant with the long-term maintenance of the viability of the ecosystem that depends on or maintains the species used (Leal, A., Sánchez L. E., Izquierdo S. J., & Demedio, 2008). Therefore, it is proposed to implement an institutional reservoir that impacts bee communities in a scientific research park based on the strategic program of the Universidad Veracruzana that allows interaction with different actors inside and outside the university (Figure 2).

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Public policy proposal, inclusive tourism for people with disabilities in San Juan del Río, Qro.

Propuesta de política pública, turismo incluyente para personas con discapacidad en San Juan del Río, Qro.

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Abstract

In this work, the needs of disabled people in the locality under study to enjoy tourist activities, specifically the food of the restaurant of their choice, are presented as meetings and contributions, establishing that there is a lack of awareness and interest in improving the conditions and resources to provide service to this vulnerable group. Therefore, a proposal for people with disabilities was designed and proposed, which was called "public policy aimed at raising awareness and/or training restaurateurs in the provision of services to people with disabilities for inclusive tourism in the city of San Juan del Río, Querétaro". The above was obtained through a mixed type of research, including literature review and field observation, using the qualitative approach for the analysis of information and proposal of the necessary public policy proposal to contribute to the minimization of the detected problem, from which arose the objective of finding and minimizing the areas of opportunity in terms of inclusive tourism for people with disabilities in the restaurant industry of San Juan del Río, Querétaro.

Inclusive tourism, Public policy, disability, San Juan del Rio Qro.

Resumen

En el presente trabajo se exponen como encuentros y aportaciones las necesidades de las personas con discapacidad de la localidad en estudio para disfrutar de actividades turísticas, específicamente de los alimentos del restaurante de su preferencia, estableciendo, que existe una falta de sensibilización e interés por mejorar las condiciones y los recursos para prestar el servicio a este grupo vulnerable, por lo que se diseñó y plantea una propuesta para personas con discapacidad que se denominó "política pública encaminada a la sensibilización y/o capacitación a los restauranteros en materia de prestación del servicio a personas con discapacidad para un turismo incluyente en la ciudad de San Juan del Río, Querétaro". Lo anterior se obtuvo a través del tipo de investigación mixto, incluyendo revisión bibliográfica y observación en el campo, utilizando el enfoque cualitativo para el análisis de información y planteamiento de la propuesta de política pública necesaria para contribuir a la minimización del problema detectado, de donde surgió el objetivo de encontrar y minimizar las áreas de oportunidad en materia de turismo incluyente para personas con discapacidad en la industria restaurantera de San Juan del Río, Querétaro

Turismo incluyente, Política pública, discapacidad, San Juan del Río Qro.

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Introduction

The objective of this work is to find the deficiencies in inclusive tourism for people with disabilities, observed in the restaurant industry of San Juan del Río, Querétaro, without the use of research instruments that require any validation, using a mixed type of research that included observation and own experience in the field, while for the documentary part a theoretical review was carried out to contextualize the problem and the actors involved in it, specifically people with disabilities and the restaurant industry in the city of San Juan del Río, Qro, information at the general level of the country and at the local level of the city under study.

Afterwards, the detected needs of the disabled people of the locality to enjoy tourist activities, specifically the food of the restaurant of their preference, establishing that there is a lack of awareness and interest to improve the conditions and resources to provide the service to this vulnerable group, Therefore, a proposal for people with disabilities was designed and proposed, which was called "public policy aimed at raising awareness and/or training restaurateurs in the provision of service to people with disabilities for inclusive tourism in the city of San Juan del Río, Querétaro", including phases ranging from the detection of the problem as an unmet need to the organizational proposal for the implementation of public policy projects, actors and actions.

The problem

Alcocer Lizcano, (2013) refers that tourism is a dynamic sector that in recent decades has become the support of the national economy in many parts of the world, as it has successfully overcome enormous challenges and challenges demanded by globalization, the way of consumption and consumer expectations. Currently, the influence of international currents in terms of inclusiveness and other objectives of the Agenda 2030 of the United Nations (UN) guides and recommends all sectors to observe the needs of "different" groups, so to speak, of groups that could be vulnerable in the provision of services in the tourism sector, in this case those who have a disability and require services from the restaurant industry.

Similarly, it is noted that the national and local government are working in this regard, in accordance with the provisions of the National Council for the Development and Inclusion of Persons with Disabilities, however, information that can be found in digital press such as Noesis.com, states that these works in the state of Queretaro are for the improvement of infrastructure in the sector.

San Juan del Río, Querétaro is a city that due to its geographic location and wine corridors, among other virtues, is favored by national and international tourism and its interest in offering inclusive tourism in the municipality is observed by initiating training activities for the personnel of governmental agencies in order to have an impact on the promotion and other actions among local tourism service providers in the search for knowledge in the area of attention to people with disabilities, The restaurant industry is also working to make the necessary changes so that their exterior and interior facilities have the appropriate signage and information services to provide a quality service to this vulnerable group.

The restaurant industry

The National Institute of Statistics Geography and Informatics (INEGI) in the collection of sectorial and regional studies for 2021, stated that the North American Classification System (SCIAN) considers the following classification for restaurants, which are found in branch 7225 that refers to food preparation services and alcoholic and non-alcoholic beverages; dividing them into the following activities:

722511 Restaurants with food preparation service a la carte or run-food service.

722512 Fish and seafood restaurants

722513 Restaurants with service of preparation of antojitos (appetizers)

722514 Restaurants with service of preparation of tacos and cakes 722515 Cafeterias, fountains and snack bars

722515 Cafeterias, soda fountains, ice cream parlors, soft drink parlors and the like 722519 Other food preparation services

722519 Other food preparation services for immediate consumption 722516 Self-service restaurants

722516 Self-service restaurants

722517 Restaurants serving pizzas, hamburgers, hot dogs and rotisserie chickens for take-out

722518 Restaurants serving pizzas, hamburgers, hot dogs and rotisserie chickens for take-out

722519 Restaurants serving other food for immediate consumption

722518 Restaurants that prepare other take-out food.

Algunos indicadores de la industria restaurantera

At a national level, INEGI stated in 2020 that the economic units of the restaurant industry represented 12.2% of all businesses in the country and generated a little more than two million jobs, generating 7.5% of the jobs in the country, and that it is mainly made up of micro-enterprises.

In the Municipality of San Juan del Río, Querétaro

According to tourism blogs, San Juan del Río has 124 restaurants within the municipality, where they correspond to:

Table No. 1 Number of restaurants in San Juan del Río, Querétaro.

Quantity	Description
68	Restaurants with a la carte food preparation or with a meal plan:
7	Restaurants with fish and seafood preparation service
8	Restaurants with preparation of antojitos
6	Restaurants with taco and tortas preparation service
19	Cafeterias, soda fountains, ice cream parlors, refreshment stands and similar establishments
16	Restaurants with pizza, hamburgers, hot dogs and rotisserie chicken to take away.

Table 1 Restaurants in San Juan del Río
Source: Own Elaboration with data from Tripadvisor

People with disabilities

What is a disability?

The World Health Organization (WHO) 2021 defines disability as a general term that encompasses impairments, activity limitations and participation restrictions. Impairments are problems affecting a body structure or function; activity limitations are difficulties in performing actions or tasks; and participation restrictions are problems in participating in life situations. Therefore, disability is a complex phenomenon that reflects an interaction between the characteristics of the human organism and the characteristics of the society in which it lives.

The same organization mentions that people with disabilities are one of the most marginalized groups in the world. These people have worse health outcomes, have lower academic results, participate less in the economy and have higher poverty rates than people without disabilities, and for the purposes of this study, it can be said that they are the ones who enjoy tourism the least due to services that are not suitable for them.

The Royal Spanish Academy defines disability, the quality of the disabled, as a person who is impeded or hindered in any of the daily activities considered normal by the alteration of their physical or intellectual functions.

The Ministry of Health of Bogota defines disability as resulting from the interaction between people with impairments and barriers due to attitude and environment that prevent their full and effective participation in society, on equal terms with others.

The statistics of the National Institute of Statistics, Geography and Information (INEGI) 2000 classifies impairments and disabilities according to the organ, function or area of the body affected or where the limitation occurs, giving some examples such as: brain injuries, spinal cord, limb and other body part such as absence of legs, etc., these disabilities refer to the consequences of the impairment in the affected person, for example limitations in speaking, walking, other activity or learning. As more specific examples, not being able to see, or not being able to move a part of your body, etc., also dividing them into total, moderate or severe disability.

Likewise, the National Institute classifies them by group, as shown in the following table: See Table 2 (Annexes)

The 2014 census conducted by INEGI establishes that there are 15.8 million people with some type of disability, which represents 13.2% of the total population. It mentions that the economically active population (EAP) of 15 years and older with disability conditions represents 39.1% and the one without limitation or any disability represents 65.7%, of which 27.6 are women with disability and 47.9 without limitations and 52.9 are men with disability and 84.7 without disability or limitation, this difference in the EAP could be causing significant losses of potential income for households in which people with disabilities reside.

Disability in San Juan del Río, Querétaro

In 2019, the year in which the Support Program for People with Disabilities was created, in a first census 3000 disabled people were detected in the city of San Juan del Río, Querétaro according to García (2019), who also stated that a purge would have to be made because as they would be given a pension of 2500 pesos bimonthly with the mentioned program, some people of those censused could be pretending not to be disabled. The INEGI census of the year 2020 states that the main disabilities present in the population of San Juan del Río were visual, physical, hearing, motor, memory and communication disabilities. The same census provides information on the number of people with disabilities and the percentage of the total population.

Disability	Visual impairment	Physical disability	Hearing impairment	Motor	To remember	For contact
Number of disabled	6383	6044	3377	2516	2455	1950
% of total population	2.14	2.03	1.13	.84	.82	.65

Table 3 Disabilities in the population in San Juan del Río, Querétaro

Source: Own Elaboration with data from INEGI (2020)

Demands of political actors

What do people with disabilities in San Juan del Río, Querétaro need to enjoy tourist activities, specifically food from the restaurant of their preference.

According to Matamoros, Tejeida & Morales (2019), in Mexico, people with disabilities encounter physical, social, economic and cultural barriers to enjoy tourism and recreational activities and the supply in this tourism sector is inefficient in terms of accessibility and there is a lack of adequate public policies, which has prevented them from fully enjoying their free time, considered a universal human right.

Therefore, it is necessary to strengthen or create appropriate public policies in order to create processes that allow linking this group of people with the tourism sector, that is, to improve infrastructure, internal equipment and trained personnel in the various tourist services such as restaurants, hotels and cultural centers, thus avoiding barriers to the social inclusion of people with disabilities.

This is because tourism is a universal human right and is recognized in Article 7 of the World Tourism Organization's (WTO) Global Code of Ethics for Tourism and should be available to any person without physical, social, economic, racial or any other kind of distinction. As in Mexico, the Political Constitution in Article 1 establishes the scope of the human rights of people in conditions of vulnerability or any disadvantage, by pointing out the obligation of all authorities not to discriminate in any way, Rabell (S.f.), as well as various laws such as the General Law for the Inclusion of People with Disabilities, the Federal Law of Tourism, among others, promote and seek to guarantee equal opportunities for people with disabilities within the development programs of the tourism sector.

Regarding the Municipality and the sector that concerns us in the present work, data on restaurants that have equipment and trained personnel for inclusive activities to receive and serve people with disabilities has yet to be determined, however, through observation in a first exploration, we visited restaurants in San Juan del Río, Querétaro, observing that in the providers of this service there is a lack of adequate equipment and trained personnel to serve people with disabilities or lack of sensitivity of the food service providers to this vulnerable group.

Proposed public policy

Therefore, considering the steps mentioned by Rabell (S.f.) for the present work, a public policy proposal is made, in which it can be observed that some of the steps for the elaboration of public policies are proposed, as well as the phases proposed by Pérez (2021).

These phases include: Detection of pending actions with justification of why it is an unsatisfied need and its probable causes; an alternative is also proposed, without having proposed several and choosing one; likewise, the evaluation phase is included, without being evaluated, but it is thought that this would be positive, hypothetically considering that the local government has the capacity to intervene, it would be effective and that there is political feasibility. It also includes the objectives (general and specific), the project for the chosen alternative with activities and the projection of objectives, the necessary organization for the implementation of the public policy projects with space to propose participants and leaders.

The pending action of creating a public policy aimed at raising awareness and/or training restaurateurs in the provision of services to people with disabilities for inclusive tourism in the city of San Juan del Río, Querétaro is detected.

It is an unsatisfied need since in relation to another time and another space, it is behind and in order to initiate actions in the city that are aimed at inclusive tourism for people with disabilities, it is necessary that first the service providers are sensitized and trained in this regard. The probable cause of this need is that there is little interest in providing the service to this vulnerable group or lack of knowledge of the rights of this same group with respect to inclusive tourism.

Therefore, the alternative is to start with a program to sensitize and train restaurateurs in the provision of service to people with disabilities.

Considering that this alternative solution to the problem or area of opportunity observed would be evaluated by the municipal government as feasible, considering the criteria of:

- Intervention capacity (Financially and organizationally).
- Effectiveness (Efficiency in resources and objectives)
- Political feasibility (social and legal feasibility).

Objectives of the chosen alternative

Sensitization and/or training to restaurateurs in terms of providing service to people with disabilities for inclusive tourism in the city of San Juan del Río, Querétaro.

General objective:

Raise awareness and train restaurateurs in the city, through a process that considers training, exchange of experiences, promotion of best practices in service to the disabled, social dialogue and the commitment of stakeholders to the existing challenges in the field.

Specific objectives:

Promote greater knowledge among stakeholders on initiatives, standards, approaches, methods, etc., of service delivery to people with disabilities through various processes of capacity building, training, research - among the various stakeholders - on approaches and methods, systematization and dissemination, which contribute to a better understanding of the benefits and the role of the various stakeholders in the development of services.

Project for the chosen alternative

1. Municipal project to raise awareness and provide training in the provision of tourism services to people with disabilities for inclusive tourism.

Institutional project activities for awareness and training in the provision of tourism services to people with disabilities for inclusive tourism.

Design and implementation of a web platform (a space on the municipal government's website) for the dissemination of information on the subject.

Organization of conferences, seminars and training courses on the subject with the participation of international and national experts. See Table 4 (Annexes).

Organization for the implementation of public policy projects and activities.

In order to implement the project activities for training and capacity building in the provision of tourism services for people with disabilities, a committee or management council is first required to initiate the implementation, manage the financing and continuity of the identified lines of action.

This council can be organized into commissions or subcommittees by topic that are responsible for implementing what is necessary to carry out the actions of each of the projects, that is, for designing the work plan on the basis of social dialogue and consensus among all the participating actors, which must have technical, social, political and financial viability.

1. These commissions should be formed on the basis of the activities proposed for each of the projects:
2. Commission for training and education in the provision of tourism services to people with disabilities.
 - A) Committee for the Design and implementation of a training program on the provision of tourism services to people with disabilities at the municipal level.
 - B) Committee for the design of a training plan for the provision of tourism services to people with disabilities in order to strengthen and expand the actions currently being carried out.
3. Communication and Dissemination Committee
 - C) Committee for the design and implementation of a web platform for the dissemination of information on the provision of tourism services to persons with disabilities.
 - D) Committee for the organization of conferences, seminars and training courses on the provision of tourism services for people with disabilities with the participation of international and national experts. See table number 5 (Annexes)

Conclusions

After what has been observed in companies of the tourism sector, specifically in those dedicated to the provision of prepared food services, as well as analyzing the information from bibliographic sources, it is confirmed the existence of a situation that does not contribute to the exclusivity of people with disabilities to receive services according to their needs in the restaurant industry of San Juan del Rio, Qro.

Being that: there is no sensitivity, knowledge in the workers of the mentioned business or the service providers to improve the necessary conditions for a quality service to vulnerable people due to their disability.

Likewise and derived from the above, a proposal to improve the quality of services offered to people with disabilities in the city, called "public policy aimed at raising awareness and / or training to restaurateurs in the provision of service to people with disabilities for inclusive tourism in the city of San Juan del Rio, Queretaro", including phases such as: detection of pending actions with substantiation of why it is an unmet need and its probable causes; an alternative is proposed, the phases of evaluation, objectives, project to be implemented, necessary organization for the implementation of the public policy projects with space to raise participants and leaders are included.

Annexes

Group	Subgroup	Examples
Sensory and communication disabilities	- Disability to see, - Hearing impairment, - Speech impairment (muteness), and - Communication and language comprehension disability	Ablepsia Amaurosis Sightlessness Total blindness Blind Missing one eye One-eyed Hearing impaired No hearing in one ear Born deaf Does not hear in right or left ear Deaf-mute Uses hearing aid Lack of tongue Mute Mute Does not speak well No speech Obmutescence (total loss of voice) Cleft lip and palate Alexia Dysphasia Lacunar language

Motor Disabilities	<ul style="list-style-type: none"> - Disabilities of the lower extremities, trunk, neck and head, and - Disabilities of the upper extremities 	Bone shortening of the lower extremity Amputation of any part of an extremity Amputation of legs or feet Leg atrophy Rheumatoid arthritis Lamé Disabled legs Missing foot or leg Missing toes Not walking Partial paralysis of legs Pes cavus Amputation of arms or hands Absent arms or hands Fingers fused together Missing fingers or toes One-armed No movement of hands or arms
Mental Disabilities	<ul style="list-style-type: none"> - Intellectual disabilities (mental retardation), and - Behavioral and other mental disabilities 	Brain atrophy Mental weakness Mental deficiency Dementia Alzheimer's disease Mental gaps Slow learning Complete memory loss Amnesia Mental retardation Down syndrome Trisomy Hallucinations Epileptic seizures Autism Suicidal behavior Seizures Insanity Neurosis Psychopath
Multiple and other disabilities	<ul style="list-style-type: none"> - Multiple disabilities and - Other disabilities 	Limitation of movement or walking and limitations in the use of arms or hands Quadriplegia Stroke Stroke Parkinson's disease Unable to move Left or right side paralysis Total paralysis Asthma Blood cancer Kyphosis Diabetes
Special keys	<ul style="list-style-type: none"> - Descriptions that do not correspond to the concept of disability - Not specified general 	Uric acid Alcoholic Allergy High blood pressure Anemia Arthritic Arm droop Cramps Hardly hears Hardly sees Heart difficulty Stuttering Dyslexia Difficulty breathing Uses crutches Uses prosthesis Old age

Table 2 Disability groups
 Source: Own Elaboration based on statistical data from INEGI (2000)

Thematic Commission	Lead	Participants
Training and education commission for the provision of tourism services to people with disabilities this commission must work on the lines of action of training and education; research and systematization in order to carry out activities 1, 2, 3, 4, 5, 6, 7, 8 and 8.		

Table 4 Projection of public policy objectives
 Source: Own Elaboration

Projectable Objectives	Indicators, Verifiers and External Factors		
Awareness raising and training on issues related to the provision of tourism services to people with disabilities for inclusive tourism.	Indicators	Verifiers	External factors
General Objective of the Project (Long-Term): To promote the provision of tourism services to people with disabilities, through a process that considers training, exchange of experiences, promotion of best practices, social dialogue and stakeholder engagement with existing challenges in the field.			
Specific Project Objectives	1.- To promote greater knowledge among stakeholders about initiatives, standards, approaches, methods, etc., for the provision of tourism services to people with disabilities.		
	2.- To establish different training, education and research processes - among the different stakeholders- on the provision of tourism services to people with disabilities.		
	3.- To raise awareness among stakeholders about the benefits and the role of each one in the development of tourism services for people with disabilities in the municipality.		
General Objective of Project 1 (Short Or Medium Term):			
Specific objectives of the project for raising awareness and training in the provision of tourism services to persons with disabilities	1.- Design and implementation of a training program on the provision of tourism services to people with disabilities for all stakeholders.		
	2.- To design and implement a training program for the provision of tourism services to people with disabilities in order to strengthen and expand the actions currently being carried out.		

Table 5 Who participates and leads such commissions?
 Source: Own Elaboration

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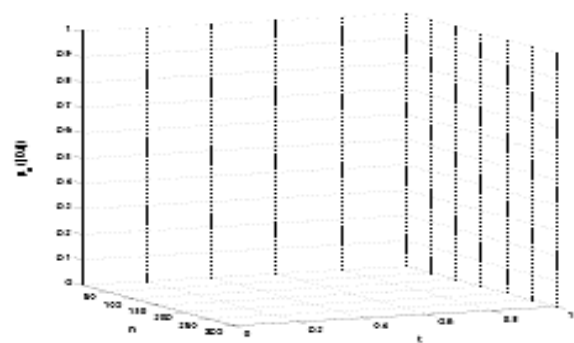
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The Publisher undertakes to guarantee the confidentiality of the evaluation process, it may not disclose to the Arbitrators the identity of the Authors, nor may it reveal the identity of the Arbitrators at any time.

The Editor assumes the responsibility to properly inform the Author of the stage of the editorial process in which the text is sent, as well as the resolutions of Double-Blind Review.

The Editor should evaluate manuscripts and their intellectual content without distinction of race, gender, sexual orientation, religious beliefs, ethnicity, nationality, or the political philosophy of the Authors.

The Editor and his editing team of ECORFAN® Holdings will not disclose any information about Articles submitted to anyone other than the corresponding Author.

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The description of the peer review processes is made known by the Editorial Board in order that the Authors know what the evaluation criteria are and will always be willing to justify any controversy in the evaluation process. In case of Plagiarism Detection to the Article the Committee notifies the Authors for Violation to the Right of Scientific, Technological and Innovation Authorization.

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The Arbitrators undertake to notify about any unethical conduct by the Authors and to indicate all the information that may be reason to reject the publication of the Articles. In addition, they must undertake to keep confidential information related to the Articles they evaluate.

Any manuscript received for your arbitration must be treated as confidential, should not be displayed or discussed with other experts, except with the permission of the Editor.

The Arbitrators must be conducted objectively, any personal criticism of the Author is inappropriate.

The Arbitrators must express their points of view with clarity and with valid arguments that contribute to the Scientific, Technological and Innovation of the Author.

The Arbitrators should not evaluate manuscripts in which they have conflicts of interest and have been notified to the Editor before submitting the Article for Double-Blind Review.

Responsibilities of the Authors

Authors must guarantee that their articles are the product of their original work and that the data has been obtained ethically.

Authors must ensure that they have not been previously published or that they are not considered in another serial publication.

Authors must strictly follow the rules for the publication of Defined Articles by the Editorial Board.

The authors have requested that the text in all its forms be an unethical editorial behavior and is unacceptable, consequently, any manuscript that incurs in plagiarism is eliminated and not considered for publication.

Authors should cite publications that have been influential in the nature of the Article submitted to arbitration.

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