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Strategic analysis of the development hubs for the well-being of the transisthmian project in Oaxaca

Análisis estratégico de los polos de desarrollo para el bienestar del proyecto transístmico en Oaxaca

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Abstract

The Transisthmian Project in Oaxaca is essential for regional development. It seeks to create development hubs for local well-being in an area with historic economic and social challenges. The main objective is to apply strategic planning in the development hubs for the welfare of the Transisthmian Project in Oaxaca to ensure its success and regional sustainability. The strategic planning methodology allows through the MEFE and MEFI matrix:

1. Identify the necessary resources, financial, human and technological, in the area to establish and maintain the development hubs.

2. Management and mitigation of risks to constantly evaluate results.

3. Evaluating, adjusting and improving the progress of the development hubs on an ongoing basis.

The MEFE matrix is used to evaluate external aspects that impact a region. The MEFI evaluates internal factors that affect community development. In conclusion, the Transisthmian Project's strategic planning methodology in Oaxaca is key to achieving development objectives in the region. It aligns stakeholders, allocates resources efficiently, addresses risks, and evaluates progress. With sound planning, the project drives sustainable development and local well-being.

Stakeholders, Strategic, Evaluating

Resumen

El Proyecto Transístmico en Oaxaca es esencial para el desarrollo regional. Busca crear polos de desarrollo para el bienestar local en un área con históricos desafíos económicos y sociales. El objetivo principal es aplicar la planeación estratégica en los polos de desarrollo para el bienestar del Proyecto Transístmico en Oaxaca para asegurar su éxito y sostenibilidad regional. La metodología de la planeación estratégica permite a través de la matriz MEFE y MEFI:

1. Identificar los recursos necesarios, financieros, humanos y tecnológicos, en el área para establecer y mantener los polos de desarrollo.

2. Gestión y mitigación de riesgos para evaluar constantemente resultados.

3. Evaluar, ajustar y mejorar el progreso de los polos de desarrollo de forma continua.

La matriz MEFE se usa para evaluar aspectos externos que impactan en una región. La MEFI evalúa factores internos que afectan el desarrollo de la comunidad. En conclusión, la metodología de planeación estratégica en el Proyecto Transístmico en Oaxaca es clave para alcanzar los objetivos de desarrollo en la región. Alinea partes interesadas, asigna recursos eficientemente, aborda riesgos y evalúa el progreso. Con una planificación sólida, el proyecto impulsa el desarrollo sostenible y el bienestar local.

Stakeholders, Estratégico, Evaluación

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Introduction

The Isthmus of Tehuantepec in the state of Oaxaca, Mexico, has been the focus of attention in recent years due to the Transisthmian Project, also known as Interoceanic, an economic and social development initiative aimed at improving the quality of life of the local population. An essential part of this initiative is the strategic planning of the "poles of development for well-being" that are being established in the region (Diario Oficial de la Federación, 2023). This article presents a strategic analysis exercise on one of the five communities called to become a development pole for well-being, namely San Blas Atempa, using the MEFE (Matrix for the Evaluation of External Factors) and MEFI (Matrix for the Evaluation of Internal Factors) matrices.

During the diagnostic visits, focus groups and interviews with the study population, as well as on the basis of basic statistical information, it was possible to present this strategic analysis.

Method

MEFE Matrix (Matrix for the Evaluation of External Factors):

The MEFE matrix is used to evaluate and analyse external factors that can influence the success or failure of a project or strategic plan (Ponce, 2006). In the case of the development poles in the Isthmus of Tehuantepec, this matrix becomes an essential tool to understand the challenges and opportunities faced by the project.

Strengths (F): In the context of development poles, external strengths that can support the success of the project should be identified. These may include factors such as government interest in the region, the strategic geographic location of the Isthmus, and investment opportunities.

Opportunities (O): This looks at external opportunities that can be leveraged to benefit the project. This could include the availability of international funds for regional development, the growing demand for services in the area, and the existing transport infrastructure.

Weaknesses (D): External weaknesses that could hinder the success of the development poles are identified. These can range from a lack of basic infrastructure to environmental or social challenges in the region.

Threats (A): Finally, external threats that could pose risks to the project are assessed. This could include factors such as natural disasters, social conflicts or changes in government policies.

MEFI Matrix (Matrix for the Evaluation of Internal Factors):

The MEFI matrix, on the other hand, focuses on the internal factors that affect the project's ability to achieve its objectives. This involves a comprehensive analysis of the internal resources, skills and capacities available to the development poles.

Internal Strengths (IF): This lists internal strengths, such as the availability of financial resources, strategic alliances and existing infrastructure.

Internal Weaknesses (ID): Internal weaknesses are identified, such as shortage of qualified staff or lack of experience in managing similar projects.

How were the development poles for well-being selected?

Based on the update of the Isthmus Programme as of May 2022, it was decided to work with five municipalities located in Oaxaca, out of the ten so-called Poles of Development for Wellbeing; San Blas Atempa, Asunción Ixtaltepec, Ciudad Ixtepec, Santa María Mixtequilla and Salina Cruz.

These municipalities, as indicated at the meeting of the Interoceanic Corridor of the Isthmus of Tehuantepec-Confederation of Industrial Chambers (2022), were selected by a collegiate group according to technical criteria and procedures such as:

- "Strategic positioning with respect to resources, communications and supply of services".
- "Competitiveness-oriented incentive configuration through investment attraction."

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- Integration into the industrial production ecosystem through industrial groupings or clusters.

- "Linkage to local productive vocations, regional productive chains and availability of human capital."

- "Granting of a package of fiscal and non-fiscal incentives and support through one-stop shops and customs facilitation."

- "Availability of a favourable business climate: public safety and social peace."

Having clarified the delimitation of the unit of analysis, in the first instance it is necessary to refer to the entire region of the Isthmus of Tehuantepec, which according to the General Coordination of the State Planning Committee for the Development of Oaxaca COPLADE (2017), covers an area of 20,755.26 km2, is subdivided into 41 municipalities grouped by districts: Tehuantepec and Juchitán (Figure 1).

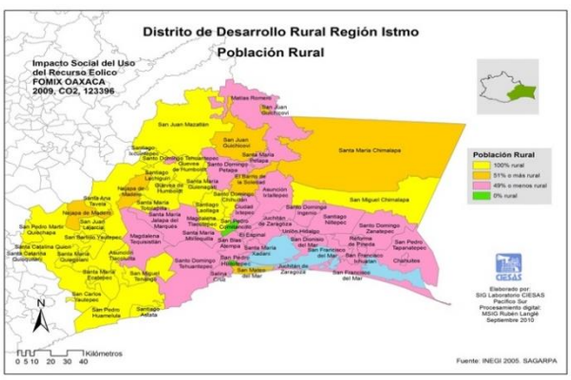

Figure 1 Isthmus of Tehuantepec region
Source: Nahmad, 2010.

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 with 98,043 inhabitants and the smallest is San Miguel Tenango with 729 inhabitants (COPLADE, 2017).

The Isthmus region is made up of 41 municipalities where 1,352 localities are distributed, as counted in the 2020 Population and Housing Census. The population is concentrated in the Tehuantepec-Juchitán-Ixtepec corridor, but is also widely dispersed in mountain 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 (idem).

The Isthmus region 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% (idem).

However, the Isthmus region has great potential for 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 CFE (idem).

Unit of Analysis: San Blas Atempa

Location

The municipality of San Blas Atempa, meaning "by the river", is located in the Isthmus of Tehuantepec region in the southeast of the state (Figure 2), at coordinates 95° 13' west longitude, 16° 19' north latitude, at an altitude of 40 metres above sea level. It is bordered to the north by Santo Domingo Tehuantepec and San Pedro Comitancillo, to the south by San Pedro Huilotepec and Salina Cruz, to the east by Santo Domingo Tehuantepec, and to the west by Juchitán de Zaragoza (Secretaría de Desarrollo Agrario Territorial y Urbano, 2020).

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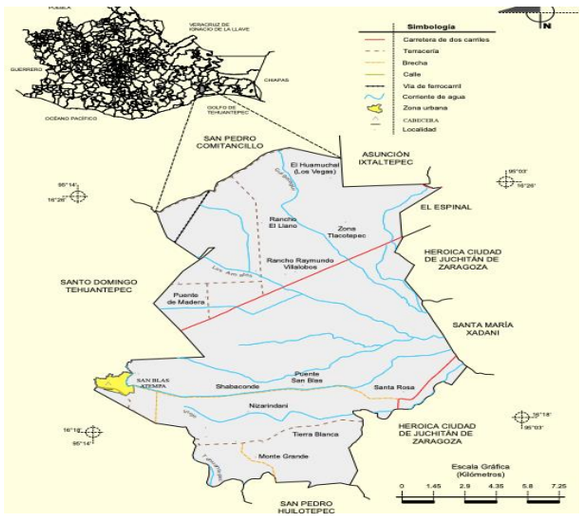

Figure 2 Municipality of San Blas Atempa
Source: National Institute of Statistics and Geography (INEGI, 2010).

Socio-demographic characteristics

The population of the municipality in 2020 was 19,696 inhabitants (9,925 women and 9,771 men). The indigenous population is represented by 19,252 people and 230 Afro-Mexicans. The municipality is made up of 28 localities and registers a high social backwardness (Gobierno del Estado de Oaxaca, 2023).

The main economic activities reported are agriculture and livestock and the production of handicrafts. In this sense, the elaboration of embroidery uses basic tools in the productive process, the work is practically done by hand. Despite the little implementation of technology, this process is valued for its importance in the social reproduction of artisan families, according to Devillard (1990), this activity as a productive element performs functions of residence, production and distribution, "they are a mechanism that functions both in the production and reproduction of life, both in education and health care, as well as in the field of decision-making and collective security" (Zibechi, 2015).

This work begins on a small scale, which is why the whole family is involved in this activity. Small-scale production begins as a means of self-consumption or exchange (barter) for basic necessities, and later as a means of commercialisation for local consumption and national and international markets.

Strategic analysis of the Municipality of San Blas Atempa

The results of the MEFE Matrix are presented below:

Threats

1. Natural disasters: This community is located in a seismically active zone, which exposes it to earthquakes and tsunamis.

2. Climate change: The region often faces droughts and problems of access to clean water, which can affect agriculture and the daily life of the population.

3. Environmental impact: Unsustainable exploitation of natural resources and pollution can threaten the environment and local resources.

4. Threat to culture and biocultural heritage: The Isthmus of Oaxaca is a region rich in culture and history, and the construction of the project could threaten archaeological sites, the loss of biocultural heritage and local traditions.

5. Changes in Governmental Policies: Upcoming electoral movements could affect the support and continuity of the project.

6. Funding Sustainability: Possible interruptions in funding or management could threaten the success of both the project and the welfare development poles.

Opportunities:

1. Tourism Potential: Tourism promotion of the development poles for wellbeing will generate jobs and income thanks to the coastal location and regional culture of San Blas Atempa.

2. Use of renewable energies: The proximity to the Isthmus of Tehuantepec allows the use of renewable energy sources, such as wind power, to generate electricity and reduce energy costs.

3. Interoceanic Project: This development project will strengthen local capacities in search of the well-being of the population.

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4. Investments in infrastructure: The investment that will be carried out with the interoceanic project in roads and basic services will improve connectivity and the quality of life of the population of the development poles for well-being.

5. Adoption of sustainable practices: Promoting the adoption of sustainable practices in the management of natural resources will preserve the environment and generate income for the population of the welfare development poles.

6. Partnerships with NGOs: It is necessary to promote collaboration with NGOs that provide technical and financial support for local development projects such as that of the Isthmus of Tehuantepec and its development poles.

Factor	Valoue	Calification	Weighted result
A1. Natural disasters	.08	1	.08
A2. Climate change	.03	2	.06
A3. Environmental impact	.03	2	.06
A4. Threat to culture and biocultural heritage.	.08	1	.08
A5. Changes in government policies.	.08	1	.08
A6. Sustainability of funding	.08	1	.08
01. Tourism potential	.10	3	0.3
02. Use of renewable energies,	.10	3	0.3
03. Inter-oceanic project	.11	4	.44
04. Investments in infrastructure.	.11	4	.44
05. Adoption of sustainable practices.	.10	3	0.3
06. Partnerships with NGOs	.10	3	0.3
TOTAL	**1**	**28**	**2.52**

Table 1 MEFE matrix for San Blas Atempa

Results of the MEFE Matrix analysis:

A score of 2.52 on an External Factor Evaluation Matrix (EFEM) indicates that the evaluated external factor is considered moderately important in the context of the strategic analysis. The following is an interpretation of a score of 2.52 on the MEFE:

1. Moderate Importance: A value of 2.52 suggests that the external environment factors have some relevance, but is not considered extremely critical or insignificant in the strategic analysis.

2. Moderate Impact: This score indicates that external factors may have a moderate impact on the community or project, but are not necessarily determining factors that dictate the strategy on their own.

3. Consideration in Planning: Although these are not extremely important factors, they should still be considered in strategic planning, as they can influence strategic decisions, but do not completely dominate them.

4. Potential Area for Improvement or Attention: If these factors are considered favourable, it may be an area where the community or project can capitalise or improve further. If they are considered unfavourable, they may require attention to mitigate potential negative impacts.

5. Balance with Other Factors: In the context of the MEFE, it is important to consider how these factors compare with other external factors assessed. A value of 2.52 may indicate that some factors have a moderate balance compared to others.

Overall, a MEFE score of 2.52 implies that the external factors assessed are neither extremely critical nor insignificant, and should be part of the strategic analysis, but not necessarily a dominant factor in decision-making. The precise importance and impact of this factor will depend on the context and how it relates to other factors assessed in the MEFE matrix.

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We will now look at the behaviour of the FEMI Matrix to come to a final conclusion.

Weaknesses:

1. limited infrastructure: The lack of adequate infrastructure, such as roads and utilities, limits the economic development of the community.

2. High social backwardness: A high proportion of the population lives in conditions of poverty, which affects access to basic services and quality of life.

3. Unemployment: The lack of job opportunities generates economic inequalities in the region.

4. Limited access to education: The lack of middle and high schools hinders access to quality education.

5. Insecurity: Crime and violence affect the security and quality of life of the inhabitants of San Blas Atempa.

6. Limited access to health services: The lack of adequate medical facilities hinders access to quality health care for the population.

7. Social and agrarian conflicts: There are conflicts in the population related to political and land distribution problems.

8. Lack of a municipal dump. The current dump is insufficient and does not meet the requirements and characteristics stipulated for municipal dumps.

Strengths:

Natural resources: The coastal location and local natural resources support economic activities such as fishing and agriculture.

1. Tourist attractions: The natural beauty and coastal location become a tourist attraction that generates employment and income for the population.

2. Embroidery craft traditions: The community has traditional craft skills in regional costume embroidery that promote local production and trade.

3. Community resilience: The community has experience in managing natural disasters and can be resilient in times of crisis.

4. Cultural identity: There is a strong sense of cultural identity, which promotes social cohesion and community pride.

5. Community solidarity: Collaboration among residents has fostered local projects and community empowerment.

6. Strategic location: The geographical location of the municipality in the region facilitates trade.

7. High literacy rate: Illiteracy has been reduced and nowadays the majority of the population between 6 and 14 years of age can read and write.

Factor	Valor	Calification	Weighted result
DI1. Unlimited infrastructure	.10	1	.10
DI2. High social backwardness.	.10	1	.10
DI3. Unemployment	.05	2	.10
DI4. Limited access to education.	.10	1	.10
DI5. Insecurity	.05	2	.10
DI6. Limited access to health services.	.10	1	.10
DI7. Social and agrarian conflicts.	.10	1	.10
DI8. Lack of a municipal dump.	.05	2	.10
FI1. Natural resources.	.03	3	.09
FI2. Tourist attractions.	.03	3	.09
FI3. Embroidery craft traditions.	.05	4	.20
FI4. Community resilience	.05	4	.20
FI5. Cultural identity	.06	4	.24
FI6. Community solidarity	.05	3	.15
FI7. Strategic location	.05	4	.20
FI8. High literacy rate	.03	3	.09
TOTAL	**1**	**39**	**2.06**

Table 2 MEFI matrix for San Blas Atempa

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Results of the analysis of the MEFI Matrix

This matrix obtains a value of 2.06, that is, it has a value lower than the average of 2.5, which indicates that the identified strengths are not seen as significant advantages or strong differentiators by the municipality or by those who developed the Transisthmian Project; that is, they exist, but their impact or importance in the general strategy has not been considered.

Weaknesses, on the other hand, have a specific importance that can become major obstacles or significant limitations for the community or the project.

Interpreting values below 2.5 on the MEFI matrix leads to the following considerations:

1. Reassessment of Priorities: If weaknesses and strengths have low values, it may be necessary to reassess whether these areas deserve significant attention in the current strategy. It may be that other external factors are more important.

2. Focus on External Factors: It may be more important to focus on external factors, such as opportunities and threats, that may have a greater impact on the success of the community or project.

3. Continue to Monitor: Even if internal factors are not considered critical at this time, it is important to continue to monitor them in case they change in the future or become more relevant.

4. Look for Differentiating Factors: If the identified strengths are weak, it may be beneficial to look for additional areas in which the community can differentiate itself or improve its competitive position.

In summary, these values in the MEFI matrix help the community to identify areas in which it needs to improve and areas in which it can rely on to achieve its objectives, but should continue to be considered and evaluated in the changing context of the Transisthmian project environment.

Acknowledgement

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Conclusion

The use of the MEFE and MEFI matrices in the strategic planning of development poles for well-being in the Isthmus of Tehuantepec provides a sound basis for informed decision-making. These tools enable planners and decision-makers to identify critical internal and external factors that can influence project success. They also help prioritise actions and strategies to capitalise on opportunities and mitigate threats, while leveraging internal strengths and addressing weaknesses. Ultimately, these matrices play a key role in effective strategic planning and in creating a clear path towards sustainable development and well-being in the Isthmus of Tehuantepec, Oaxaca.

Thus, it was concluded that the internal and external factors of the so-called development poles in the Isthmus of Tehuantepec Oaxaca are of vital importance for the success and positive impact of the Transisthmian Project and, in general, for the wellbeing of the region and its inhabitants. Some of the reasons for this importance are set out below:

a) This megaproject plans a significant impact on the quality of life of the people residing in the areas surrounding the development poles for welfare. In the case study, the high degree of marginalisation of the community refers to low quality of life, unemployment and underemployment, low education, limited access to health services, poor infrastructure and vulnerability to crises and disasters.

b) On the other hand, in order for the Transismic Project to be sustainable in the long term, it is essential that the communities that are the development poles are in a solid position in economic, social and environmental terms, as this ensures that the mega-project not only develops, but also continues to benefit future generations.

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c) Also, external factors, such as a stable and investment-friendly political environment, adequate transport infrastructure and a skilled workforce, can attract investors and businesses to the area and this in turn generates jobs and economic opportunities for local people. However, the welfare development pole analysed lacks these positive factors and is not perceived as a community with the capacity to attract investment.

d) When the communities where the megaproject will be implemented are in a strong position, they are more likely to participate actively and constructively in the development and implementation of the project. However, in the Isthmus region there have been some demonstrations against the implementation of the megaproject due to the negative public perception of the project.

As Sachetti (2023) points out, considering the importance of strong governance, the literature highlights that those who are not in control, along with their ideas, interests and intuitions, do not exert influence on the decision-making process. In other words, there are concrete situations, such as the Transismic Project, where stakeholders (inhabitants of the welfare poles) operate with different motivations and knowledge than the decision-makers (Federal Government).

In other words, it must be recognised that the internal and external factors of the welfare development poles and those of the communities near them are fundamental to ensure that the TransisMic Project and other development projects have a positive impact on the region and the welfare of its inhabitants, so a focus on these factors is necessary to contribute to the sustainability, quality of life and overall success of the project.

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