

Analysis in the Special Economic Zones as a Strategy to Promote Economic Growth in Peru

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Abstract

In a globalized and competitive world, countries seek new strategies and policies to boost their economic development. The Special Economic Zones (ZEE) have emerged as one of the most used tools to encourage foreign investment, promote industrialization and stimulate economic growth. In the case of Peru, the SEZs is considered a key strategy to boost its economy and increase its competitiveness in the international context. However, it is essential to address the challenges for its development. Therefore, the present study aims to analyze the approach of the Special Economic Zones (ZEE) as a strategy to promote economic growth in Peru using the MOORA method. During the analysis, difficulties were identified in legal aspects, inter-institutional coordination, inclusion of local actors, economic diversification, environmental sustainability, and international promotion. Strategies such as a clear legal framework, better coordination, local participation, economic diversification, sustainability and international promotion were proposed. In conclusion, the need to address the challenges and obstacles of SEZs in Peru through specific strategies and academic projects was highlighted. The collaboration between actors and the comprehensive implementation of these measures promotes the potential of SEZs and sustainable economic growth.

Keywords: *Special Economic Zones, economic growth, obstacles, and strategies.*

INTRODUCTION

Special Economic Zones (SEZs) are delimited geographical areas within a country that are established for the purpose of encouraging foreign investment, promoting international trade (Ramos-Cortez & MacNeill, 2022), stimulate industrial development and generate employment. These areas are characterized by special conditions and regulations that seek to attract investors and facilitate economic activity (Bilal et al., 2022).

In the case of Peru, the main objective of the SEZs is to boost the country's economic growth and competitiveness (Peace Jury, 2022). These zones are established in strategic locations that possess comparative advantages, such as developed logistics infrastructure,

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access to ports and airports, natural resources, and skilled labor (Raihan & Tuspekova, 2022) (Arce Rojas, 2022).

The definition of SEZs in the Peruvian context is regulated by the Law on Special Economic Zones for Export and Transformation (SEZ) and is conceived as delimited areas where investment is encouraged and the production of goods and services for export is promoted. These zones are characterized by a special customs and tax regime, logistical facilities, access to financial services and institutional support.

The characteristics of the Special Economic Zones in Peru are based on the promotion of foreign direct investment, the attraction of multinational companies, the generation of quality employment, the promotion of innovation and technology, and the diversification of the economy. These zones focus on strategic sectors such as agribusiness (Merino, 2020), manufacturing, logistics, services and tourism.

The objectives of the SEZs in the Peruvian context are aligned with the general purposes of promoting economic growth, improving international competitiveness, generating employment and reducing poverty. These zones seek to promote the transfer of knowledge and technology (Martín-Cuadrado et al., 2021), stimulate the creation of production chains, strengthen regional integration and enhance participation in international trade.

The implementation of SEZs in Peru seeks to take advantage of the country's potential as a platform for exporting and attracting investment. In addition, it seeks to promote public-private collaboration to develop infrastructure projects and improve the internal and external connectivity of the areas.

The implementation of SEZs in Peru dates back to the late 1970s, when the Free Trade Zone policy was adopted as a strategy to boost trade and attract foreign investment. However, at that early stage, SEZs were not implemented according to a theoretical framework and comprehensive planning, which limited their effectiveness.

In the historical evolution of SEZs in Peru, two main forms of zones are identified: Form 1, export-oriented, and Form 2, focused on long-term industrial development. Initially, Peruvian SEZs focused on Form 1, seeking short-term objectives and without adequate coordination with a long-term development perspective.

In the mid-90s, Export Centers were introduced (Dilas-Jiménez & Cernaqué Miranda, 2021), Transformation, Industry, Marketing and Services (CETICOS) and Economic Development Zones (ZEDs) were proposed within the legal framework. However, these proposals faced difficulties in their implementation and many projects remained on paper, limiting their impact on the country's economic development.

Among the factors that have influenced the development of SEZs in Peru are the lack of an explicit industrialization policy by the State, the absence of comprehensive planning, and insufficient economic infrastructure. In addition, there is the lack of an adequate education system for the development of qualified human resources and the lack of coordination between the various entities involved in the management of SEZs.

The results obtained to date in the implementation of SEZs in Peru have been mixed (Jiménez Cabrera & Garrido Quiroz, 2022). While some areas have managed to attract investment and generate employment (Haller, 2012), many of them have faced difficulties in reaching their full potential due to lack of adequate conditions, limitations in infrastructure, poor development of external markets, among other challenges.

Therefore, it is necessary to take into account that the evaluation of the impact of the SEZs must consider the specific Peruvian context, including socioeconomic, geographical and cultural aspects. It is also necessary to compare the results of the zones in different regions of the country, as there may be significant variations in their performance. Therefore, the general objective of the study is defined as:

Analyze the approach of Special Economic Zones (SEZs) as a strategy to boost economic growth in Peru and its impact on the country's socioeconomic development.

To this end, the following specific objectives are defined:

Identify the challenges and obstacles that have arisen in the implementation of Special Economic Zones in Peru, by analyzing legal, administrative, logistical and social aspects that have limited their effectiveness.

Propose recommendations and improvement strategies for the approach of Special Economic Zones in Peru, considering international good practices and the particularities of the country's socioeconomic context, with the aim of enhancing their contribution to economic growth and sustainable development.

MATERIALS AND METHODS

The work responds to a bibliographic review of the topic presented, which necessarily requires the collection of information and data based on research. The information, texts and scientific articles used make it possible to analyse the problem posed. The information collected contributes to the discussion on the SEZ and its particularities of the country's socioeconomic context. It is added that the research leads to a problem in terms of study existing in the Peruvian reality.

MOORA Method

The Multiobjective Optimization by Ratio Analysis (MOORA) method was introduced by Brauers and Zavadskas. The basic idea of this procedure is to calculate the overall return of each alternative as the difference between the sums of its normalized returns that belong to the cost-benefit criteria (López Castañeda et al., 2021). Before starting, it is important to have all the attributes well defined and consider that all of them must be measurable, that is, that they can be measured or valued with respect to each of the alternatives. The procedure for implementing this method will be described in detail below.

1. MDF approach.

The method begins with the identification of available alternatives and criteria. Then, the decision-making matrix is constructed, which contains n rows representing the alternatives in the evaluation, and $J+L$ the columns representing the criteria under evaluation (J quantitative criteria and L qualitative criteria). In this way, the Final Decision Matrix (FDM) is calculated using equation (8).

$$MDF = [VO, VST] \begin{bmatrix} A^1 \\ A^2 \\ \vdots \\ A^n \end{bmatrix} \begin{bmatrix} x_1^1 & \cdots & x_j^1 & x_{j+1}^1 & \cdots & x_{j+L}^1 \\ x_1^2 & \cdots & x_j^2 & x_{j+1}^2 & \cdots & x_{j+L}^2 \\ \vdots & & \vdots & \vdots & & \vdots \\ x_1^n & \cdots & x_j^n & x_{j+1}^n & \cdots & x_{j+L}^n \end{bmatrix} \quad (1)$$

Where A_i represent the alternatives, for $i=1 \dots n$, and x_j^i represents the inputs of alternative i with respect to criterion j .

2. Calculate the normalized decision matrix.

It is feasible for the qualification criteria to be expressed in various units or scales of measurement; So, normalization takes place. Where the Euclidean norm is obtained according to equation (9) to the criterion x_j

$$|X_j| = \sqrt{\sum_{i=1}^n x_i^2} \quad (2)$$

Therefore, the normalization of each input in the MDF is carried out according to equation (10).

$$Nx_{ij} = \frac{x_{ij}}{|X_j|} \quad (3)$$

The results obtained using equation (10) are dimensionless values that lack scale, allowing operations between criteria to be additive.

3. Calculate the weighted normalized decision matrix.

Taking into account the different importance of the criteria, the normalized weighted ratings are calculated using equation (11). WNx_{ij}

$$WNx_{ij} = w_i \cdot Nx_{ij} \quad (4)$$

Selection of alternatives using distance to reference point when using Tchebycheff. The reference point or alternative is constructed. This benchmark is constructed with the best evaluation for each criterion. $R[r_j]$

To measure the distance between each alternative and the reference point, the Tchebycheff metric is used.

$$Dist_{(i,j)} = \{max_j |r_j - WNx_{ij}|\} \quad (5)$$

The alternatives are ordered according to the shortest distance

$$min_i = \{max_j |r_j - WNx_{ij}|\} \quad (6)$$

RESULTS

In the context of Peru, SEZs have faced a number of challenges that have hindered their full functioning and the achievement of their objectives. The identification of the challenges and obstacles that have arisen in the implementation of the Special Economic Zones in Peru, by analyzing legal, administrative, logistical and social aspects, which allow us to understand the limitations that have affected the effectiveness of these zones in the country. The results of this analysis will be essential to propose recommendations and solutions that contribute to overcoming these obstacles and strengthening the development of SEZs in Peru, for the benefit of sustainable and equitable economic growth (see table 1).

Table 1. Challenges and obstacles that have arisen in the implementation of Special Economic Zones (SEZs) in Peru.

Cod.	Challenge/Obstacle	Remarks
DO1	Lack of clear and up-to-date legislation to regulate SEZs.	The absence of specific and up-to-date legislation creates uncertainty and hinders the effective implementation of SEZs in Peru.
DO2	Inconsistency between national laws and SEZ-specific regulations.	The lack of harmonization between general laws and SEZ-specific regulations hinders consistent implementation and the creation of an enabling environment for investment.
DO3	Administrative hurdles due to lack of clarity in procedures.	The lack of clarity in administrative procedures related to SEZs creates delays and obstacles for investors, making it difficult to implement projects and limiting the efficiency of these areas.
C4	Slow procedures and lack of coordination between different government entities.	Excessive bureaucracy and lack of coordination between government entities involved in the implementation of SEZs delays procedures, creates uncertainty and limits the effectiveness of these zones as engines of economic growth.
C5	Lack of institutional capacity and trained human resources to	The scarcity of trained human resources and the lack of institutional capacity in the entities responsible for the management of SEZs make it difficult to adequately monitor,

	manage SEZs.	control and promote these areas, as they limit their potential impact on the Peruvian economy.
DO6	Poor coordination between different levels of government in the implementation of SEZs.	The lack of coordination between national, regional and local governments hinders the harmonized implementation of SEZs and can lead to conflicts of competence, affecting strategic planning and limiting the effectiveness of these zones as tools for economic development.

Source: Authors' own creation

The table summarizes the six challenges and obstacles that have arisen in the implementation of Special Economic Zones (SEZs) in Peru, grouped according to the aspects analyzed: legal, administrative, and logistical.

From the legal aspect, three challenges are identified, firstly, the lack of clear and up-to-date legislation to regulate SEZs has generated uncertainty and difficulties in their implementation. In addition, inconsistency between national laws and SEZ-specific regulations has led to conflicts and administrative obstacles. Finally, the lack of clarity in the procedures has hindered the progress and development of SEZs.

Regarding the administrative aspect, two challenges stand out, the slowness in the procedures and the lack of coordination between the different government entities have generated delays and obstacles in the implementation of the SEZs. In addition, the lack of institutional capacity and trained human resources has limited the efficient and effective management of these areas.

On the logistical side, it can be noted that the lack of adequate infrastructure is a relevant challenge. The lack of efficient road, port and airport connections hinders access to areas and the movement of goods, affecting the competitiveness and attractiveness of SEZs for companies.

Finally, an additional challenge can be considered from the social aspect: the lack of participation and dialogue with local communities. The lack of consultation and social development policies generates mistrust and opposition, limiting the positive impact of SEZs on employment generation and the human development of surrounding communities.

These challenges and obstacles, both from the legal, administrative, logistical and social aspects, require coordinated actions and comprehensive policies to overcome them and strengthen the implementation of SEZs in Peru. To this end, its effectiveness in promoting sustainable and equitable economic growth must be promoted.

To achieve this objective, it is necessary to analyze in detail the current approach of SEZs in Peru and evaluate their effectiveness in terms of generating employment, attracting foreign investment, diversifying the economy, and promoting environmental and social sustainability. Based on this analysis, areas for improvement can be identified and appropriate strategies can be designed to maximize the potential of SEZs in the Peruvian context (see Table 2).

Table 2. Improvement strategies that could boost the approach to SEZs in Peru.

Cod.	Strategy	Description
E1	Clear legal and regulatory framework	Establish an up-to-date and coherent legal framework that provides legal certainty to investors and promotes an enabling environment for the development of SEZs.
E2	Inclusion of local actors	Actively involve local communities in the planning and management of SEZs, taking into account their needs and promoting social equity.
E3	Inter-agency coordination	Improve coordination between different government entities at national, regional and local levels to streamline procedures and processes related to SEZs.
E4	Promoting economic	Promote the creation and strengthening of non-traditional sectors in SEZs, through incentives and support programs to attract investment in

	diversification	areas such as manufacturing, technology, agribusiness and specialized services.
E5	International Promotion	Strengthen the international promotion strategy to attract foreign investment to SEZs, through participation in international fairs and events, the promotion of competitive advantages and the facilitation of procedures for foreign investors.
E6	Environmental Sustainability	Incorporate practices and policies that promote environmental sustainability in SEZs, through the adoption of clean technologies and the proper management of natural resources (Banerjee et al., 2019).

Source: Authors' own creation

To determine which of these strategies should be prioritized, it is necessary to make use of the MOORA method to evaluate and classify according to the proposed criteria. Six criteria are proposed to evaluate the alternatives using the MOORA method, along with their description and the weights assigned to each of them (see Table 3).

Table 3. Evaluation criteria to define the priority of strategies.

Cod.	Criterion	Description	Weight
C1	Profitability	Assessment of the ability to generate short- and long-term economic benefits.	0.25
C2	Environmental Sustainability	Consideration of environmental impacts and sustainable use of natural resources (Zobel et al., 2023).	0.15
C3	Social impact	Evaluation of the effect on society, by providing employment, social equity and quality of life.	0.20
C4	Technical feasibility	Analysis of the technical feasibility of implementing the alternative, taking into account the infrastructure and resources available.	0.15
C5	Risk	Assessment of the possible risks associated with the implementation of the alternative.	0.10
C6	Contribution to Regional Development	Consideration of the impact on the socio-economic development of the region where the alternative will be implemented.	0.15

Source: Authors' own creation

To determine the selection of the alternative with the highest priority, the MOORA method is used, the six proposed alternatives will be evaluated according to the criteria presented. The evaluation of each alternative is shown below and the alternative with the highest priority is determined (see tables 4 to 7):

Table 4. Final Decision Matrix.

	C1	C2	C3	C4	C5	C6
Strategies	Max	Max	Max	Max	Min	Max
E1	0.8	0.7	0.6	0.8	0.7	0.7
E2	0.7	0.6	0.8	0.7	0.8	0.6
E3	0.6	0.8	0.7	0.6	0.6	0.8
E4	0.7	0.7	0.6	0.8	0.7	0.7
E5	0.8	0.6	0.7	0.7	0.8	0.6
E6	0.6	0.7	0.8	0.6	0.6	0.8
Sum of squares	2.98	2.83	2.98	2.98	2.98	2.98
Square Root	1.73	1.68	1.73	1.73	1.73	1.73

Source: Authors' own creation

Table 5. Normalized matrix.

	C1	C2	C3	C4	C5	C6
Strategies	Max	Max	Max	Max	Min	Max
E1	0.463	0.416	0.348	0.463	0.405	0.405
E2	0.405	0.357	0.463	0.405	0.463	0.348
E3	0.348	0.476	0.405	0.348	0.348	0.463
E4	0.405	0.416	0.348	0.463	0.405	0.405
E5	0.463	0.357	0.405	0.405	0.463	0.348
E6	0.348	0.416	0.463	0.348	0.348	0.463
w	0.25	0.15	0.20	0.15	0.10	0.15

Source: Authors' own creation

Table 6. Normalized and weighted matrix.

	C1	C2	C3	C4	C5	C6
Strategies	Max	Max	Max	Max	Min	Max
E1	0.1158	0.0624	0.0696	0.0695	0.0405	0.0608
E2	0.1014	0.0536	0.0926	0.0608	0.0463	0.0522
E3	0.0869	0.0714	0.0810	0.0522	0.0348	0.0695
E4	0.1014	0.0624	0.0696	0.0695	0.0405	0.0608
E5	0.1159	0.0536	0.0810	0.0608	0.0463	0.0522
E6	0.0869	0.0624	0.0926	0.0522	0.0348	0.0695
r_j	0.1159	0.0714	0.0926	0.0695	0.0348	0.0695

Source: Authors' own creation

Table 7. Evaluation of each alternative by distance to reference point.

							Max	Order
E1	0.000	0.009	0.023	0.000	0.006	0.009	0.0230	2
E2	0.015	0.018	0.000	0.009	0.012	0.017	0.0178	1
E3	0.029	0.000	0.012	0.017	0.000	0.000	0.0290	3
E4	0.015	0.009	0.023	0.000	0.006	0.009	0.0230	2
E5	0.000	0.018	0.012	0.009	0.012	0.017	0.0178	1
E6	0.029	0.009	0.000	0.017	0.000	0.000	0.0290	3

Source: Authors' own creation

Once the corresponding calculation and analysis has been carried out, it is determined that the strategies with the highest priority are:

- **Inclusion of local actors:** Actively involve local communities in the planning and management of SEZs, taking into account their needs and promoting social equity.
- **International promotion:** Strengthen the international promotion strategy to attract foreign investment to SEZs, through participation in international fairs and events, the promotion of competitive advantages and the facilitation of procedures for foreign investors.

These alternatives score the highest based on the criteria evaluated, indicating that they have the greatest potential to contribute to economic growth and sustainable development in Peru.

It should be noted that these results constitute an interpretation based on the established criteria and weights. There may be other specific factors or considerations that need to be taken into account when making a final decision on the most appropriate improvement strategy for Special Economic Zones in Peru.

University Academic Project No. 1: "Community Participation in the Planning and Management of Special Economic Zones in Peru"

Project scope: The project aims to actively involve local communities in the planning and management of Special Economic Zones (SEZs) in Peru. It seeks to promote social equity and ensure that the needs of communities are taken into account in the development of SEZs, by encouraging citizen participation and generating inclusive benefits.

Execution time: The project will be carried out over a period of 2 years, divided into implementation and monitoring stages.

General Objective: To promote community participation in the planning and management of Special Economic Zones in Peru, in order to ensure social equity and sustainable development in these areas.

Specific objectives:

- Identify the needs and expectations of local communities in relation to SEZs.
- Design and implement citizen participation mechanisms that allow the inclusion of communities in decision-making.
- Develop training and empowerment programs to strengthen community participation in the management of SEZs.
- Establish effective communication channels between SEZ authorities and local communities.
- Evaluate the impact of community participation in the development of SEZs and generate recommendations to improve their effectiveness.
- Encourage the creation of strategic alliances between the public and private sectors and local communities for the sustainable development of SEZs.

Stages of the project:

1. **Diagnosis and collection of information:** Identification of the needs and expectations of local communities in relation to SEZs.
2. **Design and implementation of citizen participation mechanisms:** Creation of spaces and mechanisms for participation that allow communities to be actively involved in the planning and management of SEZs.
3. **Training and empowerment:** Development of training and empowerment programs to strengthen the capacities of communities and encourage their effective participation in the management of SEZs.
4. **Establishment of communication channels:** Implementation of effective communication channels between SEZ authorities and local communities to ensure smooth and transparent communication.
5. **Impact Assessment and Recommendation Generation:** Evaluation of the impact of community participation in the development of SEZs and generation of recommendations to improve the effectiveness of participation.
6. **Strategic partnerships:** Fostering strategic partnerships between the public and private sectors and local communities to drive the sustainable development of SEZs.

Resources Needed:

- Academic staff specialized in the subject of citizen participation and sustainable development.
- Technical team for data collection and analysis.
- Spaces and materials for training and participatory meetings.
- Technological resources to facilitate communication between the parties involved.

Expected Impact:

- Greater inclusion of local communities in the planning and management of SEZs.
- Improvement in social equity and distribution of benefits in SEZs.
- Greater engagement and empowerment of communities in decision-making.
- Sustainable development and balanced economic growth in SEZs.

Qualified Personnel:

- Project coordinator: PhD in Sustainable Development.
- Researchers and analysts: Specialists in citizen participation and local development.
- Facilitators and trainers: Professionals with experience in participatory methodologies and community empowerment.

It is of vital importance to establish effective communication in every organization for the proper development of activities. Efficient communication, both internal and external, can contribute significantly to business success, while poor communication can lead to large losses. (Torres Merlo & Pantoja Burbano, 2023).

Approval Levels: The project will require approval from the university's sustainable development programme management and local authorities involved in the development of SEZs.

Funding: The project may be financed through internal funds of the university, as well as through the search for external funding through international cooperation projects and strategic alliances with public and private entities.

Expected Results and Benefits:

- Improvement in the governance and management of SEZs through the active inclusion of local communities.
- Sustainable development of SEZs with economic, social and environmental benefits for local communities.
- Strengthening citizen participation and social equity in the planning and management of SEZs.
- Generation of academic knowledge and good practices on the subject of community participation and sustainable development in the context of SEZs in Peru.

University Academic Project No. 2: "Implementation of Special Economic Zones of Form 2 in Peru and Countries of the Region"

Project scope: The project aims to promote the implementation of Form 2 Special Economic Zones (SEZs) in Peru and countries in the region with similar characteristics. It seeks to promote development strategies focused on the industry, in concurrence with other strategies applicable to different regions of each country. Special emphasis will be placed on attracting investment from China, taking as a reference the best practices of Chinese SEZs and their contribution to China's policy objectives.

Execution time: The project will be developed over a period of 5 years, divided into planning, implementation and monitoring stages.

General Objective: To promote the proper implementation of Form 2 Special Economic Zones in Peru and countries in the region, in line with industrial development strategies, and to encourage the attraction of investments, especially from China, to boost employment, increase exports and strengthen the economy.

Specific objectives:

- Analyze and adapt the best practices of Chinese SEZs to the reality of Peru and the countries of the region.
- Establish an explicit industrialization policy by the Peruvian State and associated countries.
- Develop the necessary economic infrastructure, by prioritizing the construction of the Brazil-Peru bioceanic rail corridor, which includes the Chancay-Pucallpa-Rio Branco do Sul section.
- To create institutions of scientific education and technological innovation under the responsibility of the State.
- Maintain existing policies to promote Foreign Direct Investment (FDI).
- Promote joint ventures between Peruvian and foreign companies, in particular, Chinese companies.
- Conduct research led by public institutions, universities, and business associations to define specific aspects of the general design of the Special Economic Zone system.

Stages of the project:

1. Analysis and adaptation of best practices in Chinese EEZs.
2. Design of industrialization policy and creation of institutions for scientific education and technological innovation.
3. Development of economic infrastructure, including the construction of the bioceanic rail corridor.
4. Promotion of joint ventures and attraction of foreign investment, especially from China.
5. Directed research to define specific aspects of the overall design of the Special Economic Zone system.

Resources Needed:

- Academic staff specialized in economics, industrial development and international relations.
- Researchers and analysts with knowledge in Special Economic Zones and comparative experiences.
- Experts in public policy and infrastructure development.
- Business associations and representatives of the private sector.
- Funding for research, training, and investment promotion.

Expected Impact:

- Attracting investment and promoting industrial development in Form 2 SEZs in Peru and countries in the region.
- Increase in employment and exports, to strengthen the national and regional economy.
- Establishment of institutions of science education and technological innovation that promote the development of local capacities.
- Consolidation of strategic alliances with foreign companies, especially Chinese, to promote the transfer of knowledge and technology.

- Generation of academic knowledge and good practices in the design and management of Special Economic Zones.

Qualified Personnel:

- Project coordinator: PhD in Economics and Industrial Development.
- Researchers and analysts: Specialists in Special Economic Zones, economic development and international relations.
- Experts in public policy and infrastructure development.
- Representatives of business associations and the private sector.

Approval levels: The project will require the approval of the university's academic authorities, as well as the national and regional governments involved in the implementation of the SEZs.

Funding: The project may be financed through internal funds of the university, as well as through the search for external funding through international cooperation projects and strategic alliances with public and private entities.

Expected Results and Benefits:

- Successful implementation of Form 2 Special Economic Zones in Peru and countries in the region.
- Increased foreign investment and industry development in SEZs.
- Job creation and increased exports.
- Development of local capacities in science education and technological innovation.
- Establishment of strategic alliances with foreign companies, especially Chinese ones.
- Generation of academic knowledge and transfer of good practices in the design and management of Special Economic Zones.

DISCUSSION

The SEZs in Peru have been implemented with the aim of boosting economic growth through the attraction of foreign investment and the promotion of export activity. First, it is highlighted that the most convenient approach for Peru and countries in the region is to adopt Form 2 EEZ, which has been successfully implemented in China and has contributed to achieving its policy objectives. This form of SEZ promotes the participation of Chinese companies in the promotion and management of SEZs, which can generate significant benefits in terms of employment and increased exports.

However, in order for these SEZs to be true engines of economic development, additional conditions are needed. In this sense, the importance of having an explicit industrialization policy on the part of the Peruvian State is highlighted, which must be supported by the construction of adequate economic infrastructure, such as the Brazil-Peru bioceanic railway corridor. This infrastructure project makes it possible to efficiently connect the SEZs, facilitating the transport of goods and promoting regional integration.

Emphasis is also placed on the need to establish institutions of scientific education and technological innovation under the responsibility of the State. These institutions will play a key role in building local capacities and promoting research and innovation in SEZs.

It is important to note that in order to make the most of the potential of SEZs, existing policies to promote Foreign Direct Investment (FDI) must be maintained and

strengthened. In addition, it is suggested to promote the formation of joint ventures between Peruvian and foreign companies, especially Chinese ones. These strategic partnerships can leverage the expertise and resources of both parties, generating synergies that drive the development of SEZs.

CONCLUSION

It can be concluded that:

- Special Economic Zones (SEZs) represent a potentially effective strategy to boost economic development in Peru and countries with similar characteristics. However, its implementation faces challenges and obstacles that need to be addressed comprehensively to maximize its impact.
- Among the main challenges identified are legal and regulatory aspects, inter-institutional coordination, inclusion of local actors, promotion of economic diversification, environmental sustainability, and international advocacy. These obstacles affect the effectiveness of SEZs and require special attention to overcome.
- To overcome the aforementioned challenges and obstacles, strategies and academic projects have been proposed that can contribute to the improvement of SEZs in Peru. Suggested strategies include establishing a clear legal framework, improving inter-agency coordination, including local communities, promoting economic diversification, environmental sustainability, and international advocacy. These strategies must be implemented in a coordinated manner and in line with the particularities of the country's socioeconomic context.

References

- Arce Rojas, R. S. (2022). The approach to forest development in Peru. *Sowing*, 9(2), e3851. <https://revistadigital.uce.edu.ec/index.php/SIEMBRA/article/view/3851>
- Banerjee, S., Kaushik, S., & Rajesh Singh, T. (2019). Global Scenario of Biofuel Production: Past, Present and Future. *Biofuel and biorefinery technologies*, 10(April), 499-518. https://link.springer.com/chapter/10.1007/978-3-030-14463-0_18
- Bilal, M., Ali, M. K., Qazi, U., Hussain, S., Jahanzaib, M., & Wasim, A. (2022). A multifaceted evaluation of hybrid energy policies: The case of sustainable alternatives in special Economic Zones of the China Pakistan Economic Corridor (CPEC). *Sustainable Energy Technologies and Assessments*, 52(August), 2-4. <https://www.sciencedirect.com/science/article/pii/S2213138822000108>
- Dilas-Jiménez, J. O., & Cernaqué Miranda, O. C. (2021). SIAL approach as a strategy for the production and commercialization of specialty roasted coffee in northern Peru. *Alpha Centauri*, 2(2), 02-16. <http://www.journalalphacentauri.com/index.php/revista/article/view/31>
- Haller, A. (2012). Vivid valleys, pallid peaks? Hypsometric variations and rural–urban land change in the Central Peruvian Andes. *Applied Geography*, 35(1-2), 439-447. <https://www.sciencedirect.com/science/article/pii/S0143622812001002>
- Jiménez Cabrera, D. I., & Garrido Quiroz, A. (2022). The Exclusive Economic Zone: The Geopolitical Role of the International Court of Justice in the Peru–Chile and Nicaragua–Colombia Cases (2001–2014). *Geopolitics(s). Journal of Space and Power Studies*, 13(1), 83-113. <https://revistas.ucm.es/index.php/GEOP/article/view/74653>
- Jurado Paz, I. M. (2022). Rural Entrepreneurship as a Territorial Development Strategy: A Documentary Review. *CUC ECONOMICS*, 43(1), 257-280. <https://revistascientificas.cuc.edu.co/economicascuc/article/view/3510>
- López Castañeda, J. R., Pérez-Domínguez, L. A., & García Alcaraz, J. L. (2021). Application of the MOORA method for workload management in the care of patients with COVID-19.

- Business Concern, 21(2), 111-120.
https://revistas.uptc.edu.co/index.php/inquietud_empresarial/article/view/12555
- Martín-Cuadrado, A. M., Pérez Sánchez, L., & Álvarez, M. (2021). Introduction. Training in digital competence. *Revista Prociências*, 4(2), 4-10.
<https://periodicos.ufpel.edu.br/index.php/prociencias/article/view/21968>
- Merino, R. (2020). The Geopolitics of Food Security and Food Sovereignty in Latin America: Harmonizing Competing Visions or Reinforcing Extractive Agriculture? *Geopolitics*, 27(3), 1-23.
<https://www.tandfonline.com/doi/full/10.1080/14650045.2020.1835864?scroll=top&needAccess=true&role=tab>
- Raihan, A., & Tuspekova, A. (2022). The nexus between economic growth, renewable energy use, agricultural land expansion, and carbon emissions: new insights from Peru. *Energy Nexus*, 6(June), 2-9. <https://www.sciencedirect.com/science/article/pii/S2772427122000304>
- Ramos-Cortez, C., & MacNeill, T. (2022). Challenging the 'absent state': Neoliberal extractivist governance and state effects in the northwest Peruvian Amazon. *Political Geography*, 98(October), 2-5. <https://www.sciencedirect.com/science/article/abs/pii/S0962629822001342>
- Torres Merlo, O. X., & Pantoja Burbano, M. J. (2023). The relevance of communication for business growth: a case study of Cooperativa de Ahorro y Crédito "Chuchuqui LTDA", Ecuador. *University and Society*, 15(S2), 577- 585. Retrieved from <https://rus.ucf.edu.cu/index.php/rus/article/view/3928>
- Zobel, M., Moora, M., Pärtel, M., Semchenko, M., Tedersoo, L., Öpik, M., & Davison, J. (2023). The multiscale feedback theory of biodiversity. *Trends in Ecology & Evolution*, 38(2), 171-182. [https://www.cell.com/trends/ecology-evolution/fulltext/S0169-5347\(22\)00228-2](https://www.cell.com/trends/ecology-evolution/fulltext/S0169-5347(22)00228-2)