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Ecotourism Hubs as an articulator of Sustainable Urban Landscape in Morales – San Antonio - ingles.d

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Ecotourism Hubs as an articulator of Sustainable Urban Landscape in Morales – San Antonio.

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Abstract

The San Martín Region, located in the Peruvian jungle, presents ecological constraints regarding environmental tourism, which encompass both natural and cultural resources. However, unplanned urban growth influences the degradation of the urban landscape, with the town center of San Antonio being the most affected, losing approximately 377ha. in natural forest. Therefore, this research presents the following question: How do ecological tourism hubs articulate the sustainable urban landscape of the Morales - San Antonio axis?. The objectives of this research identify centers of ecological tourism, delimit perimeters and geomorphological patterns, interpret the territory and its transition through landscape transformations and recognize social tourism dynamics of people in the Province. Likewise, this research has a qualitative approach, whose instruments were the observation sheet, open interview, municipal documents; and the data collection techniques were through satellite images, cartography, photographic records. and design software. Resulting in evidence of an axis with tourism potential in the city of Tarapoto, which is experiencing very accelerated urban growth, in which urbanized ecological places can be seen; Indicators were also identified for tourism centers organized into 4 groups: Buildings with tourism potential, natural remnants, ecological areas and permanent flooded and/or swampy areas. Finally, it is concluded that in fact the city of Tarapoto has ecological tourism centers and that these are articulated in the sustainable urban landscape of the Morales - San Antonio axis.

1 Introduction

According to the World Tourism Organization (WTO, 2022), global tourism has experienced a growth of 4%, representing 415 million arrivals by the year 2021, compared to the year 2020, when it reached 400 million international tourist arrivals, very low figures obtained before the pandemic; however, the WTO begins to notice recovery in this sector (p. 1). Something similar occurs with ecotourism, also known as ecological tourism (Gambarota & Lorda s.f.), which is a type of alternative tourism that includes activities carried out in natural areas, thus conserving the environment (Leal Londoño, 2017).

However, its growth is accelerated, taking on great importance since it is one of the most relevant sectors at a global level above the tourism industry in general. (UICN, 2022). Thus, according to the study prepared by Tudela Mamani, Cachui Cachui and Aliaga Melo (2022), they report that this sector is the third most important in the world economy in terms of exports, representing 10.3% of the Gross Domestic Product (GDP).) worldwide, giving job opportunities to more than 330 million people; this indicates that such practice should be given importance, and regions with environmental indicators have the full potential for nature tourism development (Ezaquias 2022).

Such is the case of San Martín, a region that contributes to sustainable tourism and is one of the industries with the greatest commitment to low environmental and cultural impact, while also providing employment and income to the local population (Provincial Municipality of San Martín, 2019, pp. 22-24).

Currently, the construction sector presents a negative impact on the natural environment (Álvarez Calixto, Rincón Carreño & Roper Duran 2020), leading to resource depletion, ecosystem imbalance, and other problems, causing negative effects on human health (Enshassi, Kochendoerfer & Rizq 2014). For this reason, various studies acknowledge the existence of areas with tourism riches, as well as the presence of ecological tourism hubs, considering the characteristics of the zone. These tourism clusters in the region, primarily in the city of Tarapoto, are categorized into three zones: Environmental Protection Zones (ZPA), Ecological Protection Zones (ZPE), and Spatial Zones (ZGE) (Provincial Municipality of San Martín, 2019).

However, the city of Tarapoto is experiencing rapid urban growth (Arévalo & León, 2017), resulting in the loss of a significant portion of vegetation cover, thus diminishing its visual appeal. The research aims to develop strategies through theoretical and practical study of the natural landscape, considering zonal tourism as one of the priorities (Rodríguez Martínez, Ramírez Pérez & Pérez Hernández 2020), transforming the image of a rural district to turn it into a tourist product and key activities that drive the region (Fuller 2011). Therefore, it involves analyzing the connection of hubs, landscape transformation, and tourism dynamics.

Additionally, instruments and techniques are being developed to implement tools for on-site interpretation of the areas identified as hubs, at local, district, and provincial scales, with particular attention to points where ecotourism is present and where landscape organization is intended.

Finally, international precedents such as Fernández Tabales & Santos Pavón (2018) and Briceño Ávila (2018) highlight the interrelation between urban landscapes and tourism. According to national studies by Hernández Ramírez, (2020), and Esparza et al. (2020), affirm that they are relational areas of more practical social ways of life, thus, ecological tourism through defined spaces becomes a sustainability alternative. In this sense, ecotourism is becoming one of the most effective ways to avoid irreversible damage, to reduce costs not only in the social and economic spheres but also in the environmental spheres affecting locals, thus preserving sectors with high-value ecosystems (Saeteros Hernández, Da Silva y Flores Sánchez 2019). Therefore, these precedents suggest the need for studies focused on the identification of ecological tourism hubs as organizers of sustainable landscapes in the city of Tarapoto, encompassing their ecological components and relationship with the territory.

In this context, the proposal is to organize the urban landscape through ecological tourism hubs for the maintenance and natural conservation of the articulating axis Morales - San Antonio, capable of protecting ecological areas and, consequently, promoting the tourist competitiveness of the city.

Through the following objectives: Delimiting the perimeters and geomorphological patterns of the hubs to understand the articulation of sustainable urban landscape in the district of Morales - San Antonio; Interpreting the territory and its transition through landscape transformations in the natural axis of the district of Morales - San Antonio, and understanding the social tourism dynamics of the people in the Province of San Martín, grasping the activities carried out by the population of the province.

Thus, this research poses the following question: How do ecological tourism hubs articulate the sustainable urban landscape of the Morales - San Antonio axis?

2 Metodology

Case study: The Morales- San Antonio Route.

This research takes place in San Martín Province, geographically located in northern Peru. It shares its northeastern border with Loreto, with Picota to the south and Lamas to the west, with the central capital being Tarapoto (see Figure 1). Likewise, the study focuses on the area between the districts of Morales and San Antonio.

District of Morales: Population of 43,481

M-SA Route: 18.7 km

District of San Antonio: Population of 1,674.

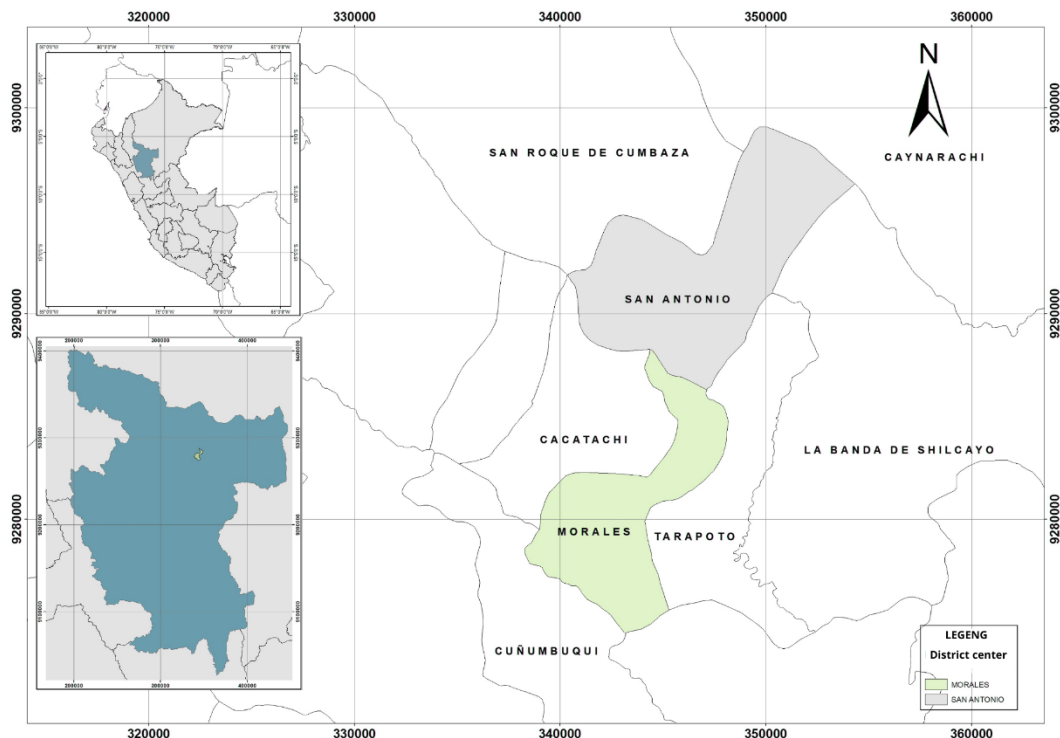


Figure 1: Location from macro to micro of Peru, Department and province of San Martín, Morales and San Antonio. **Source 1:** Self-made, ArcGis software.

2.1 Focus and data collection techniques

The present research adopts a qualitative approach method. As mentioned by (Hernández Sampieri, Fernández Collado and Baptista Lucio, 2014, pp. 7-9), qualitative research is a scientific method based on observation for the collection of non-numeric data and the collection of data that is not completely standardized or predetermined. Such collection consists of obtaining the perspectives and points of view of the participants. Furthermore, this research has a descriptive-non-experimental/correlational scope, which is a scientific methodology based on observation and description of variable behavior (Guevara et al., 2020, pp. 166-167). Likewise, the research considered a case study design, since it contemplated the analysis of a phenomenon, allowing us to understand and know the strategies; through the information developed in the field, as well as the theories and perspectives of other investigations, thus substantiating and contributing to the investigation.

2.2 Population and Sample

In this research, the population under study comprised the 'Ecotourism hubs' along the Morales - San Antonio axis in San Martín (See Figure 2).

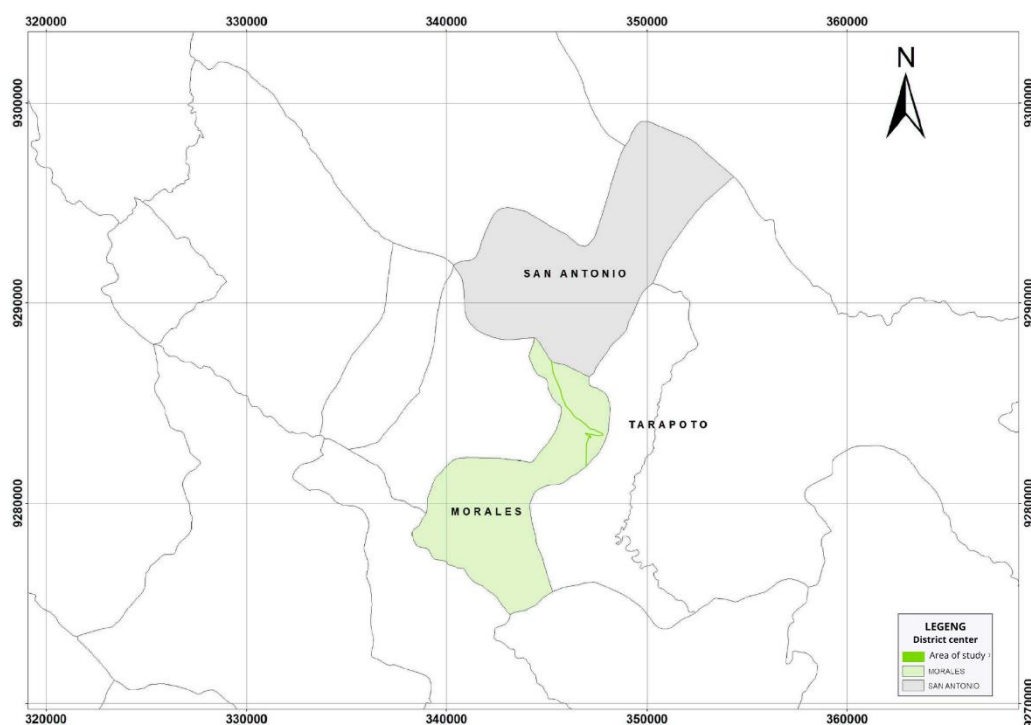


Figure 2: Study area location (Morales - San Antonio articulation axis). **Source 2:** Self-made, ArcGis software

For this, the indicators that comprise these terms were considered, which are areas containing: Buildings with tourism potential, ecological areas, natural remnants, permanently flooded and/or swampy areas (See Figure 3), from which residential buildings (houses) were excluded. Subsequently, a survey of 23 hubs was conducted: Km3, Río Lookout, El Trapiche, Gin-tonic, Wayruro, Piñarreta Esplanade, "El Gran Paso" Fairground, Stairway Lookout, Añuje Loco, Aguajales, San Antonio de Cumbaza Beaches, Unnamed Lookout, Paradise Entrance, Cuy Wasi, La Curva Restobar, Z. Club Lookout, Tree House, Tamoba Lookout, Tropicocos, Las Sombrillas, Stairway Mountain Range, Wide Vegetation Areas, San Pedro de Cumbaza Riverbank, selected based on the aforementioned criteria.

As a final result, 10 hubs were selected as the sample for this article: Río Lookout, El Trapiche, Piñarreta Esplanade, "El Gran Paso" Fairground, Aguajales, Tree House, Las Sombrillas, Stairway

Mountain Range, Wide Vegetation Areas, San Pedro de Cumbaza Riverbank, extracted from the percentage of attendance of the population of San Martín.

2.2 Instruments for data collection analysis

The instruments used in the research were as follows:

Observation Sheet: Its application is aimed at achieving Objective 1. Indicators of ecotourism hubs and delimiting the perimeters and geomorphological patterns of existing hubs. Field visits were conducted, notes and photographs were taken, and these were compared with municipal documents.

Open Interviews: This was conducted to achieve Objective 3, involving three types of actors: international, national, and local tourists. References regarding social tourism dynamics were obtained, understanding activities and preferences along the Morales - San Antonio axis.

Municipal Documents: These documents were part of the analysis process to achieve Objective 2. They helped interpret the territory and its transition through landscape transformations along the natural axis of the Morales - San Antonio district.

Satellite Image Analysis: Images were used in the analysis for Objective 1. They included views over the years to capture urban growth and the state of the landscape along the articulation axis.

Mapping: Mapping was part of Objective 2, allowing for macro and micro-level visualization of the analysis area. The sector was considered the sector as it currently stands, presenting the most up-to-date and realistic information possible.

2.4 Phases for the data collection analysis process

Table 1: Data Analysis Phases

DATA ANALYSIS PHASES			
BASED ON THE 3 SPECIFIC OBJECTIVES OF THE RESEARCH			DESK/ FIELD
Obj.1	DELIMIT	The perimeters and geomorphological patterns of the hubs	1. Theoretical research documentation and expert interviews. 2. Field data collection. 3. Mapping using software (landscape transformation). 4. Analysis of social tourism dynamics.
Obj.2	ANALYZE	The transformations of the landscape (rivers, forests, natural ecological edge).	
Obj.3	UNDERSTAND	The social dynamics of the people in San Martín.	

Source 1. Self-made.

2.5 Definition of Variables

Dependent – Independent:

Variable D: Ecotourism hubs.

Variable I: Sustainable urban landscape.

Where:

M: Sample represented by ecotourism hubs organizing the sustainable urban landscape along the Morales-San Antonio articulation axis.

V1: Ecotourism hubs.

r: Relationship between the study variables.

V2: Sustainable urban landscape.

For the research, 4 important indicators were considered, such as: buildings with tourism potential, natural remnants, ecological areas and permanent flooded and/or swampy areas, each of these indicators present nuclei that are described in the following table 2.

Table 2. Indicators for Ecotourism Hubs (Morales - San Antonio Articulating Axis).

Indicators	Description	Ecotourism Hubs
BUILDINGS WITH TOURISM POTENTIAL	Architecture tourist within the Morales – San Antonio axis, often involves constructions that accommodate visitors according to the desired experience's needs.	Lodgings
		Tourist Resorts
		Restaurants
		Tourist Hostels
		Aquatic Centers
		Plant Nurseries
NATURAL REMNANTS	Original areas of remaining vegetation with internal biodiversity.	Mountains
		Grasslands
		Forests
		Shrublands
ECOLOGICAL AREAS	Geographically delimited zones that possess ecologically significant attributes, deserving conservation measures.	Wooded Areas
		Extensive vegetation zones
PERMANENTLY FLOODED AND/OR SWAMPY AREAS	Areas prone to flooding, swampy areas, marshes, boardwalks, beaches and those near hydrographic basins.	Boardwalks
		Aguaiales
		Beaches
		Swamps

Source 4: Self-made.

3. Results and discussion

3.1. Morales – San Antonio articulation axis.

The city of Tarapoto is rising to become the third most organized territorial area in the Peruvian Amazon (Rondón Ramírez, 2017, pp. 100-101). It boasts an anomalous topographical environment in the city center, with a reduction in altitude as it approaches the riverbanks. This leads to a variety of platforms, creating microclimates and diverse vegetation, which in turn provide comfortable spaces for

residents. These spaces aim to mitigate the elevated climate in the city, enhancing livability in the urban fabric.

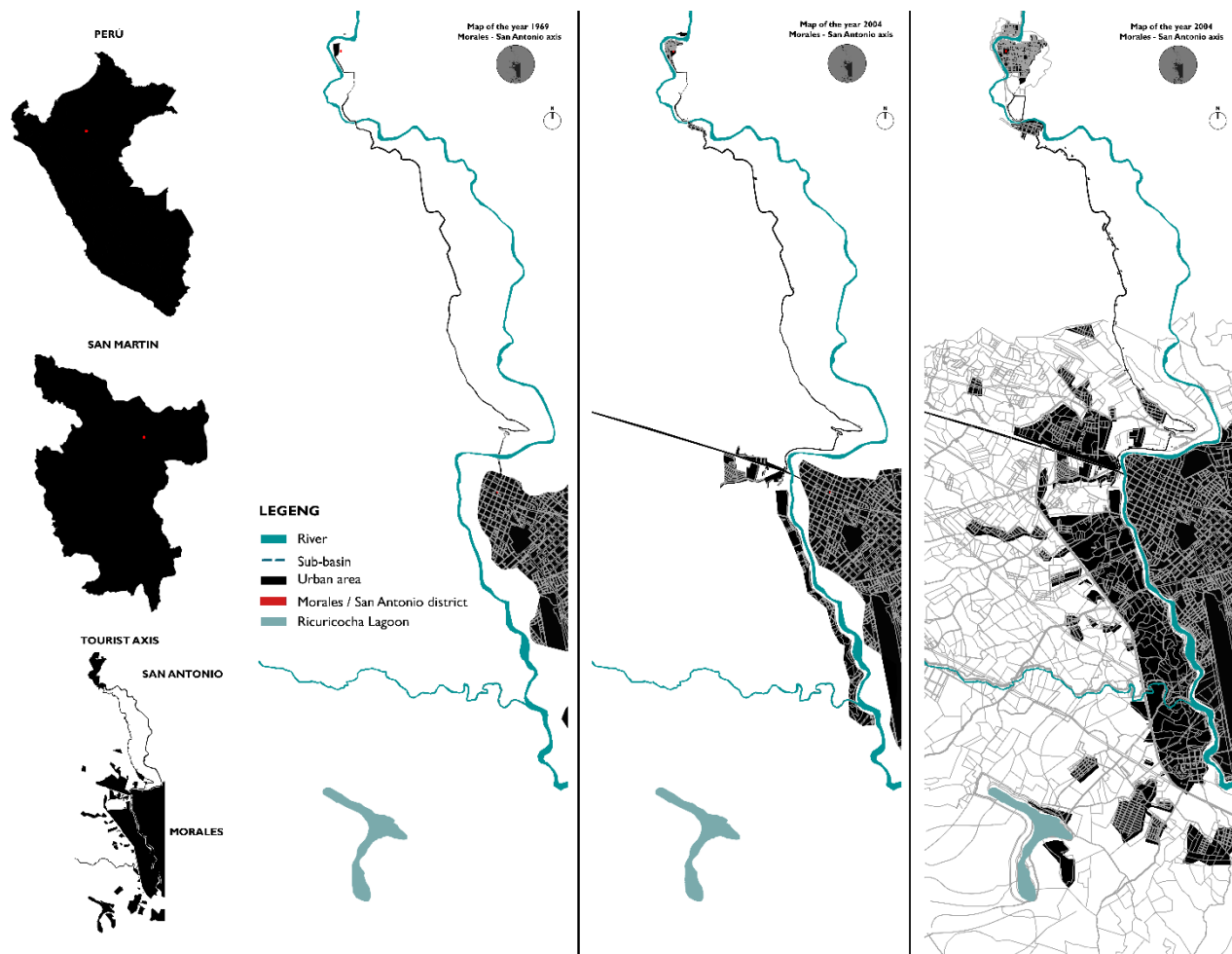
However, the entire department of San Martín is filled with vegetation, exhibiting diverse structure. Yet, the existence of a rural poverty index leads to the most vulnerable sectors, in need of housing, positioning themselves over territorial and environmental resources, resulting in unplanned urban growth (Environmental Management Directorate, 2021).

Moreover, these issues are exacerbated presently due to the lack of control by governmental institutions, which are responsible for executing planning and urban development instruments in the city (Arévalo & León, 2017). Consequently, ecological areas are being urbanized, leading to environmental impacts. Therefore, preserving ecological areas is a priority to maintain our territory's resources and ensure long-term access to them (Babii & Nadeem, 2021, para. 1). Most of this urban growth is occurring in the city's peripheries.

Interpretation of the territory and its transition over the years

Interpreting the territory and transition over the years 1969, 2004, and 2023 in the case study corresponding to the Morales - San Antonio articulation axis reveals accelerated expansion in the North-West direction (See Figure 4), establishing itself as an urbanized area. It's understood that the route has gained significance in the last 5 years not only for the recreation and leisure of the population of San Martín but also for tourists seeking tourism activities, indicating that urban growth will continue. Consequently, as these areas are not identified for development as ecotourism hubs, the Amazonian landscape has been and will continue to experience alterations in the urban area, leading to loss of vegetation cover (Carranza Gallardo & Tasilla Montalván, 2020, p. 1).

Figure 3: Maps of interpretation and transition of the Morales - San Antonio articulation axis, years 1969, 2004, and 2023.



Source 5: Self-made

3.2 Hubs and Landscape

3.2.1 Ecotourism Hubs

Studies from institutions involved in research and tourism in the Peruvian jungle such as the Peruvian Amazon Research Institute (IIAP), Regional Tourism Advisory Council (CCRT)-San Martín, among others, have recognized the existence of areas with touristic riches, leading to the development of methods aimed at defending and promoting diversity and ecotourism (DIRCETUR, 2021).

Similarly, the Urban Development Plan for the City of Tarapoto with its Urban Hubs, developed by the Provincial Municipality of San Martín (2019), explains the cultural, environmental, and physical conditions that the city meets to be promoted as an ecotourism destination. Additionally, with existing natural resources in the city, it is enhanced as a tourist destination (Provincial Municipality of San Martín, 2019, p. 93).

Indicators of tourism hubs in the study area:

1. It is proposed to take tourist architecture such as: Lodging, tourist recreation, restaurants, aquaculture centers, sports centers and nightclubs, discarding residential buildings on the Morales - San Antonio axis.
2. Original areas of remaining natural vegetation with internal biodiversity.

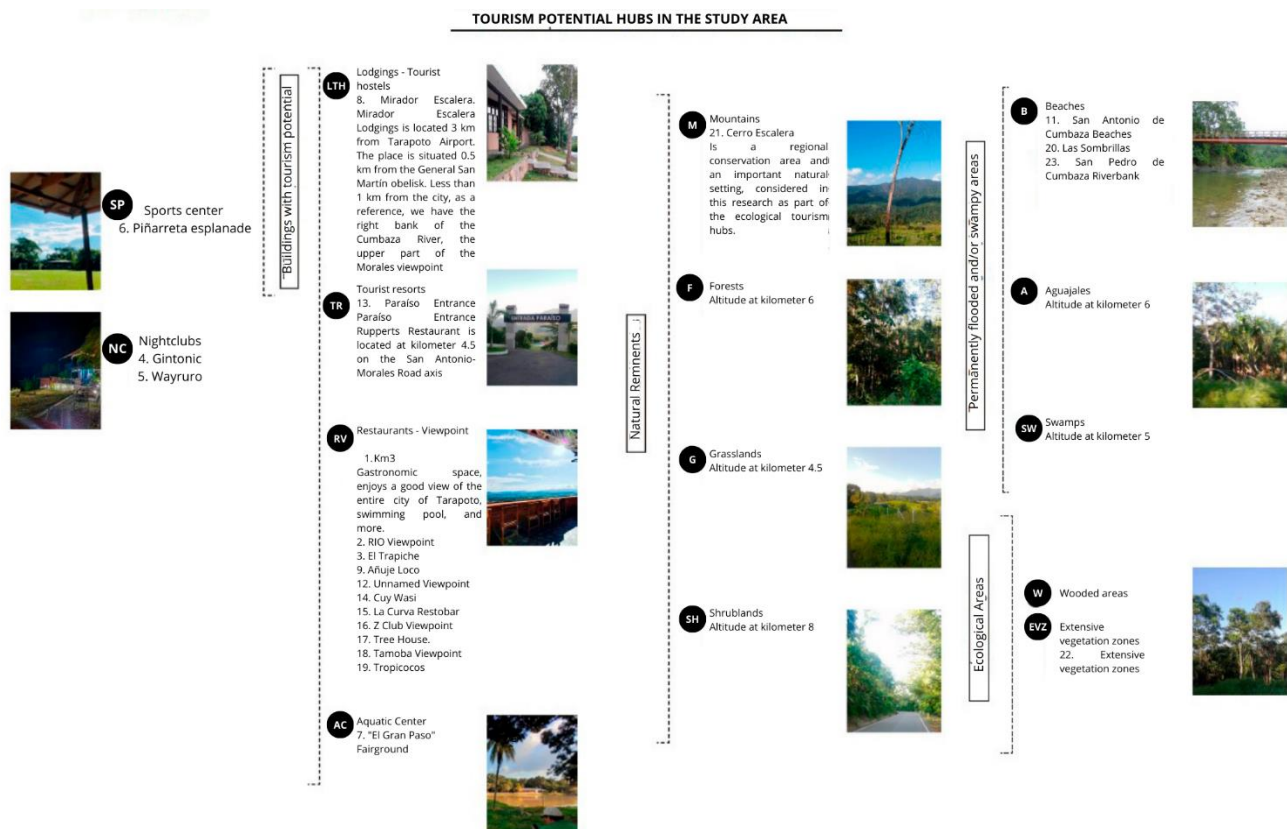
3. These geographically delimited areas, their main characteristic is that they have ecological attributes enhancing their beauty for their prompt conservation.
4. Areas with possibilities of flooding, swampy areas, marshes, jetties, beaches and those close to hydrographic basins.

Additionally, the city has ecotourism hubs, considering the characteristics of the area. These places and buildings with tourist potential (See Figure 4) are expressed as large expanses of vegetation, forests, water sources, and viewpoints, as indicated in their development plan for the years 2020-2029.

Indicators for ecotourism hubs (See Figure 2) identified in the study area:

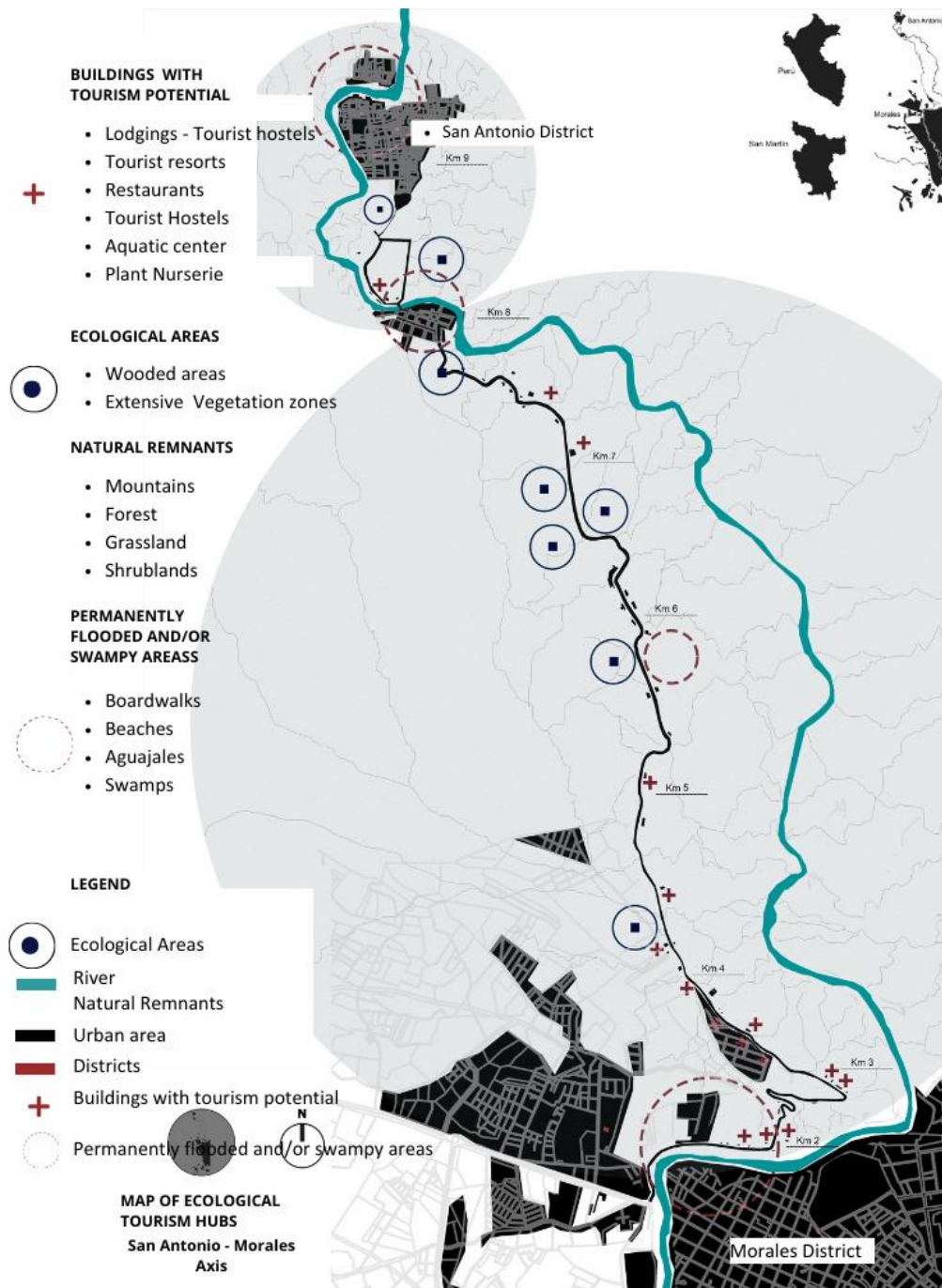
1. Buildings with tourism potential
2. Natural remnants
3. Ecological areas.
4. Permanently flooded and/or swampy areas.

Figure 4: Tourism potential hubs in the study area.



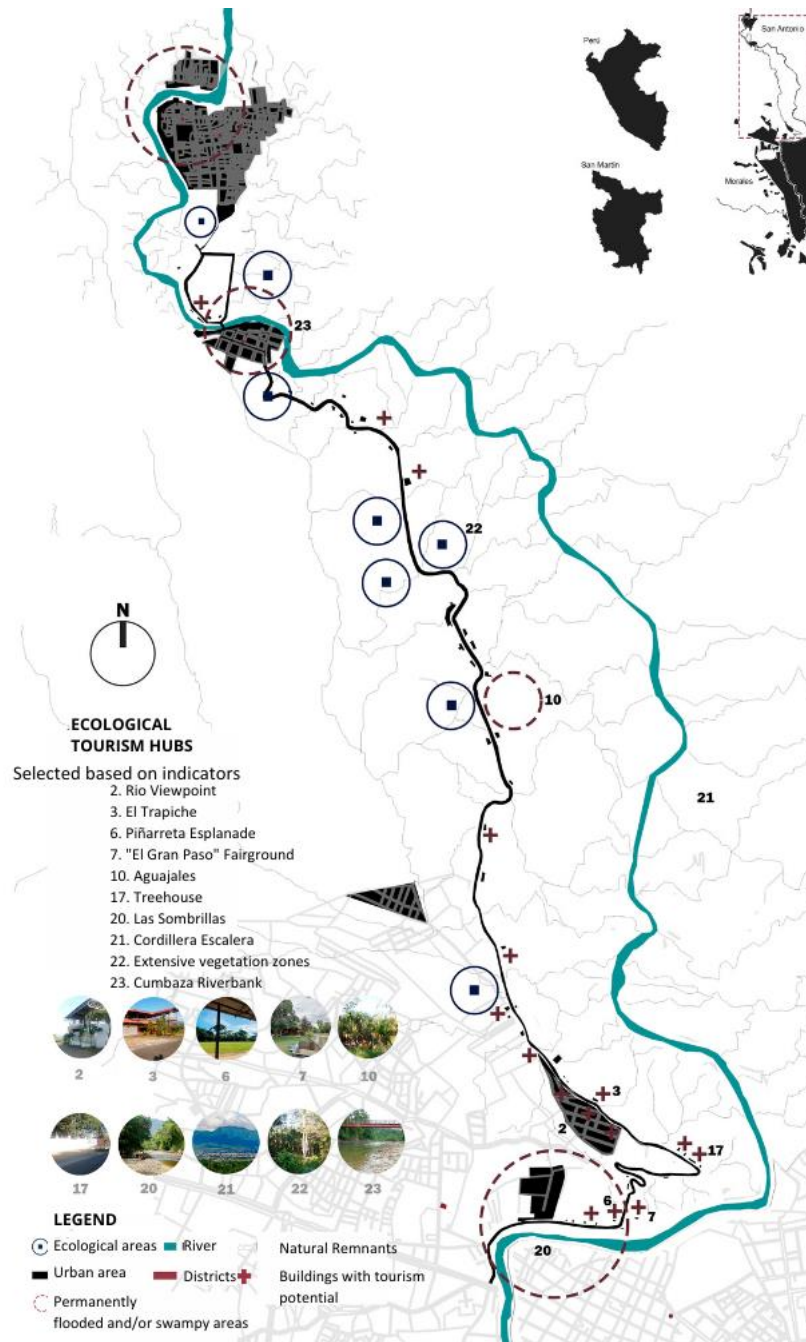
Note. Classification of hubs with tourism potential: Building with tourism potential, natural remnants, permanently flooded and/or swampy areas, and ecological áreas found in the Morales – San Antonio axis.
Source 2. Self-made.

Figure 5: Route of buildings with tourism potential along the Morales-San Antonio axis.



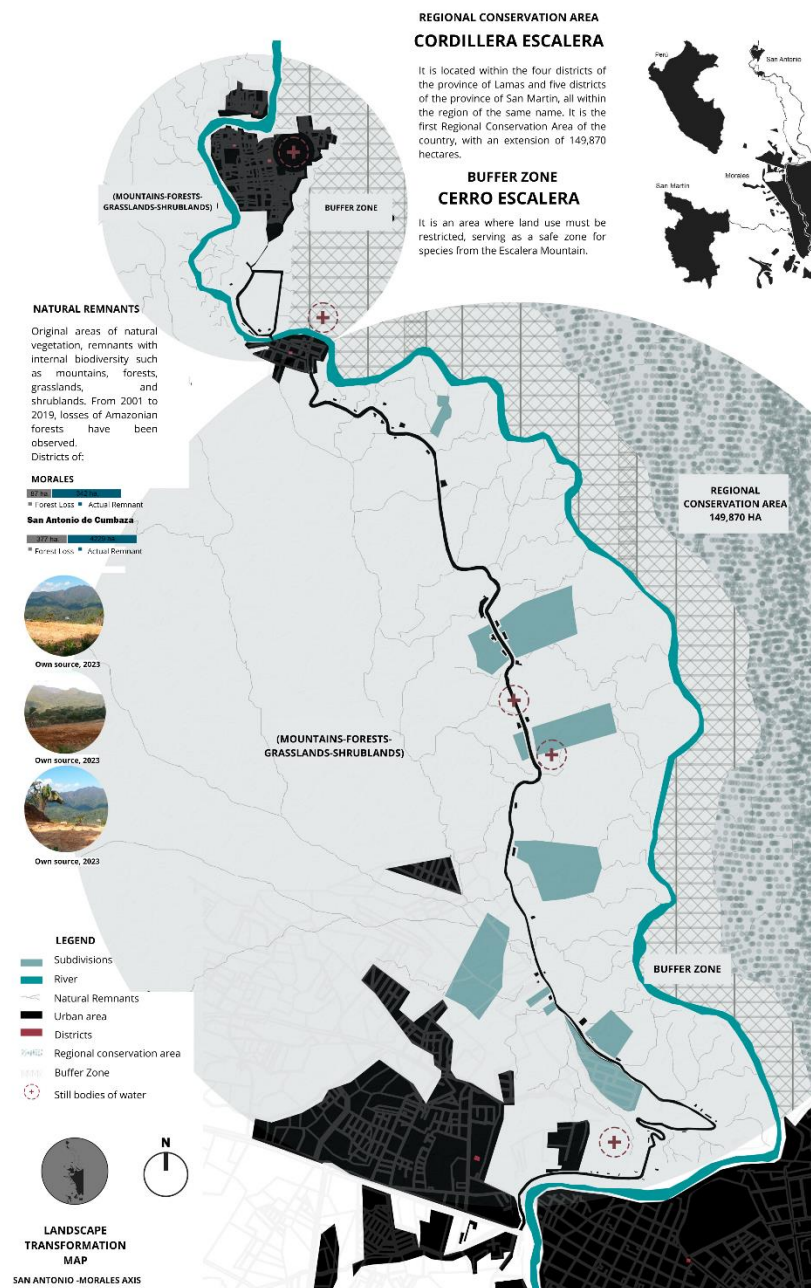
Source 3. Self-made

Figure 6: Identification of the 10 buildings with tourism potential based on indicators.



Source 8. Self-made

Figure 7. Landscape transformation in the Morales - San Antonio axis.



Source 4. Self-made.

3.2.2 Sustainable urban landscape

Process of transformation of sustainable urban landscape

From the years 2001 to 2019, losses of up to 87 hectares of the total Amazon rainforest in the Morales district were observed, leaving 342 hectares. As a result of this, the most affected populated center between those years was San Antonio de Cumbaza, where the loss of up to 377 hectares of natural forest occurred, leaving it with 4,229 hectares of Amazon rainforest (Geobosque, 2020)

However, the reality is that to date, many areas with these characteristics have been sold (**See Figure 8**) such as: Regional conservation areas, buffer zones, bodies of still water converted into subdivisions, stripping areas that could have been protected for their intangible purpose (Rojas Briceño et al., 2019). Consequently, its visual appeal, which it once boasted, will diminish. As a result, the natural mass in the city decreased from 75% to 35% in the years 2015-2019, leading to high thermal conditions, affecting the habitability of residents (Rondón Ramírez, 2017).

3.3 Social Tourism dynamics

Activities carried out by the population

The social tourism dynamics of people in the Province of San Martín were investigated, thus understanding the activities they engage in and to what extent sustainable tourism is of interest to them. The instrument of open interviews was used, conducted with 60 participants consisting of 2 international tourists, 18 national tourists, and 40 locals.

Table 3. Dynamics tourist social conditions of people in the Province of San Martín.

Awareness of the term “Sustainable Tourism”		Sustainable Tourism in the San Martín Region		Beneficial Time Range Considered for Ecotourism in the Morales - San Antonio Axis	
ACTORS		SUSTANABLE TOURISM	DATA	TIME RANGE	DAYS
International	100.0%	Against	0.0%	0-1	13.0%
National	89.0%	In favor	100.0%	1-2	20.0%
Local	37.5%			3-4	67.0%
Activities Typically Undertaken in the Morales – San Antonio Axis		The most recommended tourism hubs to visit.			
ACTIVITIES	DATA	Ecotourism Hubs			
Bathing in the river	17.0%	Edge of the San Pedro de Cumbaza River Mirador Río			
Healthy Entertainment	15.0%	River Viewpoint			
Leisure	15.0%	The Parasols			
Touring	13.0%	The Trapiche			
Typical Cuisine	10.0%	Piñarreta Esplanade			
Sports (Football)	10.0%	"El Gran Paso" Fairgrounds			
Fishing	8.3%	Tree House			
Healing /Disconnecting	5.0%	Stairs Mountain Range			
Camping	3.0%	Aguajales			

Cycling	3.0%	Large areas of vegetation		
Others	0.7%			
Busiest days on the Morales - San Antonio axis.				
Sunday	Saturday	Friday	Holidays	Wednesday

Source 10. Self-Generated from Data Gathered from Interviewed Participants / IV.D-Social Tourism Dynamics.

- Sustainable Tourism Awareness

The interview applied resulted in the total of the international actors interviewed having knowledge of the term, unlike the locals who made up 37.5% of those who knew about “sustainable tourism”.

- In favor of sustainable tourism in the San Martín Region

From the data obtained from the interviewed actors, it can be seen that the population is 100% in favor and 0% against this activity continuing to be promoted in the San Martin region.

- Beneficial Time Range Considered for Ecotourism in the Morales - San Antonio Axis

In this item it can be seen that the time range to enjoy tourism on the Morales - San Antonio route according to the 60 actors is 3-4 hours, resulting in 67% of the total of those interviewed.

- Activities Typically Undertaken in the Morales - San Antonio Axis

Ten of the main activities carried out in the study axis are observed, among which bathing in the river act stands out, which obtained 17.0%, with tenth place being Camping and cycling both hovering at 3%.

- The most recommended tourism hubs to visit.

The list of activities recommended by the interviewed actors can be seen, highlighting the edge of the River in the district of San Pedro de Cumbaza, a place where people come to enjoy with their families. This activity is a cultural part of the Peruvian jungle.

-Busiest days on the Morales - San Antonio axis

It is observed that the busiest days within the axis, obtained from the interviewees, are: Sunday, Saturday, Friday, holidays, and in fifth place, Wednesdays.

4 Discussion

Based on the findings, we confirm the interrelation between urban landscape and tourism. In the results obtained from the study of the city and its urban growth over the years, Tarapoto boasts important ecological platforms with diverse landscapes that generate microclimates, improving the habitability of urban spaces. However, these are threatened due to the increase in urban sprawl on the peripheries, necessitating their conservation.

In this regard, Fernández Tabales & Santos Pavón (2018) mention in their research that resolving such conflicts requires consideration of existing regulations to approach sustainable proposals that regulate

the case. They propose ecotourism to ensure the conservation of natural landscapes in cities through the creation of hubs.

This demonstrates, firstly, that the growth of the city of Tarapoto can be addressed with the implementation of appropriate planning instruments and regulations, which institutions need to consider. On the other hand, Tarapoto already has potential urban hubs to generate ecotourism, such as Mirador Río, El Trapiche, Aguajales, Cordillera Escalera, the San Pedro de Cumbaza riverbank, and extensive vegetation areas at km 6.

In this sense, Briceño Ávila (2018) in his research mentions that the visual and functional qualities of the urban landscape highlight attributes to improve the physical-spatial conformation, leveraging biodiversity, activities, specific characteristics in the indicators, and others. Thus, concluding that through the study of landscape attributes, the city and its contribution to the urban landscape are expressed.

From this, it can be seen that the Morales - San Antonio axis already has potential urban hubs to generate ecotourism, identified based on the indicators that the environment itself displays, highlighting both districts as significant settings within the territory of the San Martín Region.

Regarding national studies, they define that ecotourism through defined spaces becomes a sustainability alternative, preserving sectors with ecosystems of high value. Therefore, it is important to consider instruments that allow for their conservation, as the Morales - San Antonio articulating axis is currently undergoing processes of transformation in the sustainable landscape, resulting in the loss of large areas of green space. In this sense, the research by Esparza et al. (2020) presents a worthy approach to tourist dynamics, aiming to provide benefits for the owners of the areas involved by implementing projects that contribute to the environment, increase its value, and try to protect natural green areas, thereby improving the quality of life of those involved. These results are related to what González Mantilla & Neri (2015) affirm, proposing an architectural end that allows for the development of ecotourism. Likewise, we can see the great scenarios that we have in the city and by generating measures from the authorities in charge, we would enhance what remains.

Finally, the last result obtained is about the tourist and social dynamics proposed to understand the activities in the study area by our three types of users, which is why we used open interviews. Through this, aspects of preferences were evident from international tourists who recognize the places as ecological tourist attractions more than the locals, who only go for pleasure and habit. Similarly, Esparza et al. (2020) in their research show the potential of instruments such as open interviews as a basis for understanding the thinking of actors regarding the categories analyzed in the methodology.

In this sense, it was found that the field instrument provides useful data for social tourist dynamics. Additionally, it is demonstrated that not only buildings with tourism potential are the points of attraction, but also permanent flooded and/or swampy areas such as beaches and riverbanks enhance tourism hubs. In the results obtained from the surveyed actors, a large number of tourists, both international and local, prefer riverbanks for bathing, places where there is greater activity, forming an axis among them.

5 Conclusions

In this research it is concluded that in fact the city of Tarapoto has ecological tourism centers and that these are articulated in the sustainable urban landscape of the Morales - San Antonio axis, these centers with tourist potential manage to promote the injection of tourist competitiveness and natural conservation in the city and therefore in the San Martín Region.

Furthermore, the study delineated the perimeters and geomorphological patterns of these hubs to understand the articulation of sustainable urban landscapes in the Morales - San Antonio district. This was achieved through observation sheets, analysis of satellite images, design software, and geographic analysis. The identified indicators for tourism hubs in the study area were classified into four groups: Buildings with tourism potential, Natural remnants, Ecological areas, and Permanent flooded and/or swampy areas.

Indeed, Tarapoto boasts ecological tourism hubs characterized by extensive vegetation, forests, water sources, and viewpoints, as described in this research, contributing to tourism development plans in the city and its surrounding districts.

Additionally, the study interpreted the territory and its transition through landscape transformations, revealing the loss of Amazonian forest, particularly affecting the San Antonio population center. Despite these discouraging figures, there has been an increase in recreational activities sought by the population of San Martín and tourists in the last five years. However, areas identified for tourism hub development, if not protected for the future, will experience alterations due to the loss of vegetation cover caused by urban growth, affecting the urban center of Tarapoto.

Understanding the social tourism dynamics of the population in the San Martín Province, through municipal documents and interviews, sheds light on the activities undertaken by the population, from the data obtained from the interviewed actors, it can be seen the existence of tourist centers such as the San Pedro de Cumbaza River, Mirador Río, El Trapiche, Piñarreta Esplanade and large areas of natural vegetation such as Cordillera Escaleras and Aguajales were also shown.

Also, it was evident that the population is in favor of continuing to promote sustainable tourism in the San Martín region and that the main centers are protected since one of the activities carried out in the study area is bathing in the river act that obtained 17.0%, therefore if the remnants, buildings, ecological areas and permanent flooded areas are lost, the social development of the San Martín population would be affected.

Finally, the research had certain limitations, one of which was the lack of previous research on the tourism topic, at the local and national level, an important point for the bibliographic review and background of the study. However, this study will be a contribution to government institutions and areas involved in the development of plans for the good of the population of Morales and San Antonio, as well as to students interested in this topic, suggesting that more research can be developed in order to revalue our natural spaces. In this sense and according to what was analyzed, it can be concluded that ecological tourism hubs articulate the sustainable urban landscape of the Morales - San Antonio axis.

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