

## DESIGN OF TOURISM AREA DEVELOPMENT SITEPLAN IN RABI JONGGOR DISTRICT, MOUNTAIN TULEH DISTRICT PASAMAN BARAT DISTRICT, WEST SUMATRA PROVINCE

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\*Corresponding Author, Received: March 11, 2023. Revised: May 17, 2023. Accepted: June 06, 2023



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**ABSTRACT:** Kenagarian Rabi Jonggor, Gunung Tuleh District, West Pasaman Regency, West Sumatra Province, has various natural potentials that can be developed to become a tourist and research destination for academics. Potential hot springs containing minerals such as sulfur can be found at several points in the Jorong Sitabu Kenagarian Rabi Jonggor area, Gunung Tuleh District, West Pasaman Regency. The hot springs in Jorong Sitabu Kenagarian Rabi Jonggor, Gunung Tuleh District, West Pasaman Regency originate from a meeting between groundwater and magma in a magma chamber in a volcanic path. Some of these hot springs have been used as hot springs and some have not been developed into hot springs. Added to this is the existence of a living sea lake which is currently viral on social media, which makes nature lovers curious to come to it, not to forget the panoramic view of the protected forest which really spoils the eye, which is termed the heaven of West Pasaman. Infrastructure for supporting facilities for tourism objects is not yet available in accordance with existing regulations. This potential can be developed into several hot spring baths so that later the Jorong Sitabu Kenagarian Rabi Jonggor area, Gunung Tuleh District, West Pasaman Regency can become a tourist area for tracking, hiking, camping, outbound and education. Based on the problems above, the goal to be achieved from this research is to design hot spring tourism areas, protected forests and marine lakes to live with the 3A concept. In this study a qualitative approach was used by means of field observations, interviews and literature studies. The results of this study are zoning for the development of natural tourist attractions, zoning for natural and man-made attractions, zoning for accessibility between supporting tourism objects and zoning amenities (facilities) that can be developed in order to support the achievement of a comfortable and managed tourist area in Jorong Sitabu Kenagarian Rabi Jonggor, Gunung Tuleh District, West Pasaman Regency with the problem seeking and problem solving method, then developed with AutoCAD software in the form of a Landscape Overlay, so that the results of this study produce a design based on the results of field analysis which at least is able to answer the weaknesses and deficiencies of existing facilities in this tourist area, which if realized by related parties, will indirectly improve the regional economy and help improve the quality of life of the local community.

Keywords: *Design, Site plan, Development, Tourism, Hot Springs*

### 1. INTRODUCTION

Design is an effort to find the right physical components of a physical structure [1]. A site plan is a two-dimensional drawing that contains a conceptual description or map of the plan for dividing the functions of a building or plots/land. according to site planning regulates land use related to the fields that fill a land, namely architecture (lots and buildings, both residential and non-residential), engineering (facilities, around residential areas such as schools, banks, markets, gas stations, supermarkets, etc. while for infrastructure: road networks, water drainage,

energy and waste), landscape architecture (determining green and non-green open spaces) and urban planning (spatial planning and development policy) [2]. Development is a process, method, act of making progress or development in a gradual, orderly and sustainable manner that leads to the desired goal [3]. Tourism is a travel activity carried out by a person or group of people by visiting certain places for recreational purposes, personal development, or studying the uniqueness of the tourist attractions visited in a temporary period. [4]. An area is an area that has the main function of protection or

cultivation [5]. Furthermore, in the regulation it is explained that the meaning of territory is space which is a geographical unit along with all related elements whose boundaries and systems are determined based on administrative aspects and/or functional aspects.

West Sumatra is one of the provinces in Indonesia which has natural beauty that can be called extraordinary and even well-known to foreign countries, this is evident from the high number of visits by domestic and international tourists who deliberately come only to fulfill their desire to travel. West Sumatra has five favorite destinations for domestic tourists. This was revealed in the results of a survey conducted by the Institute for Economic and Social Research (LPEM) Faculty of Economics and Business, University of Indonesia (UI), there are five favorite tourist destinations in West Sumatra to visit, both tourists from Sumatra and outside Sumatra, at a press conference at Padang, Friday (2/12/2022). The survey was carried out for about two months starting from August 15-October 15 2022 in collaboration with the W Sumatra Tourism Office. The survey was conducted on 1,431 domestic tourists, 45 foreign tourists, and 153 business actors in the tourism sector spread across all districts or cities of the local province. Respondents from Sumatra came from Riau (28.7%), Jambi (10.8%), North Sumatra (5.5%), Bengkulu (3.7%), and South Sumatra (3.6%). While from outside Sumatra are West Java (1.9%) and DKI Jakarta (1.8%).

Based on the survey results at the provincial level, it is known that the average expenditure of domestic tourists is IDR 712,208.00, foreign tourists is IDR 15.7 million, and intra-West Sumatra is IDR 356,818.00 per tourist. In general, tourists from Jakarta and Java contribute the most to foreign exchange compared to tourists from other regions. Judging from the length of time tourists are in W Sumatra, it is found that the shorter the duration of the tourist visit (less than a week), the higher tourist spending, the longer the duration of the visit (more than a week), the lower tourist spending, because they generally stay at friends or relatives. The total expenditure of domestic tourists in West Sumatra was recorded at IDR 4.9 trillion, while for foreign tourists it was IDR 170.79 billion. Judging from the natural conditions that are owned by West Sumatra which are very diverse, some offer the beauty of water in the form of beaches, seas, lakes, rivers and fountains and waterfalls. There is also the beauty of the land in the form of natural panoramas of mountains, hills, valleys, canyons and savanna.

The world of tourism in Indonesia is increasingly becoming a serious concern for both the central and regional governments. Because in

addition to functioning to increase the country's foreign exchange, tourism activities have also proven themselves that they are able to take a role in reducing unemployment by opening new jobs. In addition, it also increases appreciation for traditional arts and local culture and elevates national identity to the international realm. Regardless of all its functions, tourism is the most effective means of preserving nature and traditional culture. In this study we will take the boundaries of the study area on the outskirts of West Sumatra Province which is directly adjacent to North Sumatra Province, namely in the Jorong Sitabu Kenagarian Rabi Jonggor area, Gunung Tuleh District, West Pasaman Regency, West Sumatra Province. The study area is an area that is still natural and can be called a new roaming area, which is currently going viral, because it holds the beauty and potential that is highly sought after by nature enthusiasts. In this area there are hot springs, waterfalls, tributaries and sea lakes as well as natural scenery from the hills in the form of natural forests which certainly still have a wealth of animal origin. But unfortunately, the existence of natural wealth and the beauty of this natural panorama, goes without good management and management, by the local government or private parties. While the visits of tourists who come every year and even every month are increasing day by day. It is feared that the precious natural beauty will eventually be damaged by irresponsible hands, if it is not managed properly and not managed by improper hands.

Based on the facts in the current study area, the tourism offered is hiking tourism, but does not yet support trekking and outbound activities. The area and its surroundings have not been supported by service and security facilities. There are also limitations to the problems in this study, including: 1) Knowing the characteristics of tourism in the study area; 2) Developing existing tourism potential in the study area with the concept of Problem Seeking And Problem Solving; 3) Developing the existing tourism potential in the study area with the 3A concept, namely Attraction, Accessibility, and Amenities for natural resources excluding human resources. For this reason, in order to answer some of the problems in this area, an idea emerged to solve the problem through this study. The objectives to be achieved from this research are: 1) To preserve the existing nature from destruction of nature because it is being explored without calculation and illegally, and also as part of disaster prevention because this area is a disaster-prone area; 2) Developing the area into a well-managed tourist area; 3) So that it can be used by policy makers or private developers who wish to manage

this area; 4) Improving the economy of local residents due to tourism activities that have returned to life; 5) To be used as a reference for academics both on campuses and schools.

## 2. METHOD

This research is a qualitative research. Primary data was obtained by activities in the form of interviews, field observations, and image documentation. Interviews were conducted to obtain data related to the socio-economic conditions of the community in Kenagarian Rabi Jonggor, Gunung Tuleh District, West Pasaman Regency. Field observation to obtain direct information regarding the existing conditions in Kenagarian Rabi Jonggor, Gunung Tuleh District, West Pasaman Regency. Image documentation is carried out to describe the conditions in the field. Secondary data was obtained by means of a documentation study (studying technical reports and other related documents). The data obtained will then be analyzed using problem seeking and problem solving analysis [William Pena and Steven Parshall, 1970], and the existing maps are made in the form of a Landscape Overlay with the help of AutoCAD software and then developed with the 3A concept theory [Oka A. Yoeti] namely Attraction, Accessibility and Amenities.

### 2.1. General Description of the Kenagarian Rabi Jonggor, Gunung Tuleh District, West Pasaman Regency.

Based on its geographical position, Gunung Tuleh District has territorial boundaries, namely, to the north it is bordered by North Sumatra Province, to the south by Pasaman District, to the west by Lembah Melintang District, to the east by Talamau District and Pasaman Regency.

This district is located 00°30' - 00°11' North Latitude and 99°40' - 99° 53' East Longitude, with an area of 453.97 km<sup>2</sup> and is located 26-1,875 meters above sea level, crossed by 14 rivers. There are two Nagari in Gunung Tuleh District, namely: Muaro Kiawai and Rabi Jonggor.

According to BPS data for West Pasaman Regency, processed from Gunung Tuleh District in Figures 2020, Nagari Rabi Jonggor has an area of 289.98 square kilometers, consisting of 16 jorongs, including: Jorong Sitabu, Jorong Siligawen Menek, Cold Water, Ampung Sorik, Rantau Panjang, Sibatutu, Guo, Siligawan, Bulu Laga, Baruh Gunung, Tanjung Durian, Bandar, Paroman Bondar, Jorong Bandar, Ampung Basang and Jorong Robi Jonggor. With a population of 12549 people in Nagari Rabi Jonggor, consisting of 6232 men and 6137 women[6].



Fig 1. Administrative Map of West Pasaman Regency

Based on Regional Regulation of West Pasaman Regency Number 18 of 2012 concerning the Regional Spatial Plan (RTRW) of West Pasaman Regency for 2011-2031[7], Gunung Tuleh District is included in the category of cities with a function as an Environmental Service Center (PPL). These roles and functions are directed as: 1) Protected forest area; 2) River border area; 3) Areas prone to landslides and

geological protection; 4) Permanent production forest area; 5) Areas designated for mineral and coal mining: limestone industrial minerals; 6) Areas designated for tourism and culture: cultural and historical tourism areas, especially religious ones. And the improvement of facilities and infrastructure in the Gunung Tuleh sub-district, especially in the realization of the land transportation infrastructure system development:

the construction of the primary local road network for the Robi Jonggor – Simpang Lolo road section.

## 2.2. An overview of the tourism potential of Kenagarian Rabi Jonggor, Gunung Tuleh District.

In general, this area has regional potential in the form of natural scenery consisting of forest areas, waterfalls, hot springs (baths) and panoramic views of sea lakes. So far the development of this tourist area has not been taken seriously by the government, it has been proven that the supporting facilities to the location and location of the area are very minimal, even the main tourist facilities are far from feasible and even inadequate. Along with the design based on the 2011-2031 RTRW that there will be construction of road infrastructure for the Robi Jonggor - Simpang Lolo road section, this is a breath of fresh air as something that really supports the design of the development of this tourist area, where the current conditions are good road access. motorized vehicles can only get to Jorong Sitabu. In addition, there is an agreement that the forest area has been granted by the community through customary stakeholders

so that it is managed as well as possible to Dr. Paus Iskarni, M.Pd [Lecturer at the Department of Geography, Padang State University (UNP) who is also included in the lineage of the king of Simpang Lolo] [8], for the sake of preserving existing natural resources, especially the forest area in Rabi Jonggor's Kenagarian, because there has been a lot of illegal exploration going on along the surrounding forest area.

### 2.2.1. Forest.

The natural panorama offered by this area is very pleasing to the eye, this is sure to attract tourists to enjoy it on foot (hiking or trekking), because this area offers relaxation. Based on the program of Dr. Paus Iskarni, M.Pd, who called the Educational Forest Area "Fastabiqul Khairat". So, this research only continues the placement and size of the tourism forest area that he planned. Hiking is one of the outdoor activities where the perpetrators carry out walking activities as recreational activities and sports.[9]. Trekking is a walking tour that is usually something more challenging than hiking, requires more effort, and tends to take more than one day[10].



Fig 2. Photo of the Simpang Lolo Pasaman Barat Educational Forest Area

### 2.2.2. Hot water area.

There are several hot water points with 7 (seven) flavors around this area, water one two and three have bitter, astringent and sour tastes if the three waters are mixed with water it will turn black as well as water four, five, six and seven various flavors there are sweet, bitter and salty tastes, which are believed to cure several complaints of diseases, such as skin disorders and are also often used by local residents as a medium for relaxing hot spring baths, but they are still very natural and not yet suitable for tourism. Hot springs or hot springs are springs that are produced as a result of the discharge of groundwater from the earth's crust after being

geothermally heated. The water that comes out is above 37°C (human body temperature), but some hot springs release water that is above the boiling point. Hot springs or hot springs originate from rocks in magma chambers which can store heat for thousands of years. Groundwater that descends and comes into contact with the magma will then be heated and tend to rise to the surface through fractures in the rock and form hot springs[11].



**Fig 4.** Photo of Sosopan West Pasaman Hot Spring

### 2.2.3. Laut Tinggal Lake Area.

Another beauty is the high sea lake that is at the top of this hill, which is reached by walking (trekking), past the tributaries and climbing the ridge, it's an extraordinary experience. How could I not, a tiring trip to this location will pay off with the beautiful, unique panorama of the lake. On the

outskirts of the lake the water is so clear, towards the middle the color is bright green, with the characteristics of water that is not wavy, but the water has a pH range of 2 which makes it inedible, most likely this is a volcanic lake, therefore no animals live in it [*Dr. Renata Rabenstern and Herwig Zahorka*].



**Fig 4.** Photo of Laut Tinggal Lake in West Pasaman

### 2.3. Characteristics of tourist sites based on 3A (Attraction, Accessibility and Amenities).

The success of a tourist spot until the achievement of a tourism industry is highly dependent on 3A, namely Attraction, Accessibility, and Amenities [14].

#### 2.3.1. Accessibility.

Accessibility to the initial location, namely to the point of the Educational Forest Area to be precise at Simpang Lolo, has been served by road infrastructure, which can be reached using private vehicles (two-wheeled or four-wheeled vehicles), and there are also several local public vehicles in the form of pickups and motorcycle taxis. (limited units) to get to the last location at the end of Jorong Sitabu. The road condition is quite good, in the form of a  $\pm 3\text{M}^1$  wide concrete road, but the further into the road the width gets smaller so that it will be difficult if four-wheeled vehicles meet each other in two directions and have not been equipped with drainage channels on the side of the road, and can only be passed to the end of the

road by bicycle motorbike only. Furthermore, to reach the Education Forest area, it can only be reached by walking for  $\pm 4 \text{ Km}^1$  with mild extreme category terrain, by passing 1 (one) tributary. When entering Jorong Sitabu. The trip to Lake Laut only has to pass through Jorong (hamlet) Sitabu, from Jorong Sitabu the journey which can only be reached on foot is quite far, with a distance of  $\pm 20 \text{ Km}^1$ . So, before going on this trip, of course tourists must have a strong physique and complete equipment as well as good mastery of the terrain, safety is priority.

#### 2.3.2. Attractions.

The final destination of this trip is Lake Laut Live, on the way to get there tourists pass Jorong Sitabu by traveling by motorized vehicle for  $\pm 6$  hours from Padang City, and it is very difficult to find public transportation in this area. From Jorong (hamlet) Sitabu, tourists will pass a footbridge made of bamboo, to be precise, in the area called Aek Pangijo by local residents. In Aek Pangijo tourists will be swept away by a view of a

very charming small waterfall on our left. Next, tourists will head to a residential village, namely Simpang Lolo. It is called a residential village because in the 90s there was a big flash flood and then all the local residents moved except for one family that still survived, namely the Raja family (a title for the elders in the village). From Simpang Lolo, tourists will walk through the river for one day and tourists will also find another village, namely Aek Sumariam with the same view, namely houses without residents. Not far from this place, tourists will arrive at a location called Polite Hot Springs. Usually the local people use this hot spring for medical therapy and a place to stop by for tourists, especially nature lovers before continuing their journey to Lake Laut to live. From Sosopan Hot Springs, tourists have to walk again for  $\pm$  one day, without any springs during the trip from Sosopan Hot Springs to Danau Laut Dwelling, it is necessary to prepare sufficient clean water, with increasingly steep terrain conditions. However, when you arrive at the lake, there is a small stream that can be consumed after being cooked first, of course.

### 2.3.3. Amenities.

The facilities in the tourist area are very bad, in the area along the forest there is nothing as part of tourism standards such as safety posts, as well as in the hot spring area, there are only wooden huts and unsuitable toilets (in damaged condition) / not maintained), similar conditions are also seen in the sea lake area. This area does not yet receive electricity supply from PLN, does not yet have a good telecommunication network, and does not have standard supporting facilities at all, which only looks like natural conditions formed by nature itself that spoil the eye, so it is very appropriate to be developed, advanced and managed in a professional manner. In addition, the distance of residential areas is very far from tourist sites, so it is feared that there will be problems regarding safety and health for visiting tourists, especially the slowness of help arriving when suddenly an accident occurs, for example, or there are tourists who lack daily equipment, because they forget to bring it or forgot to buy it before leaving earlier, so it is not possible for these tourists to have to return again with the road conditions that are very far and extreme being. While the trip to Lake Laut Live takes days, if it is estimated it can spend.

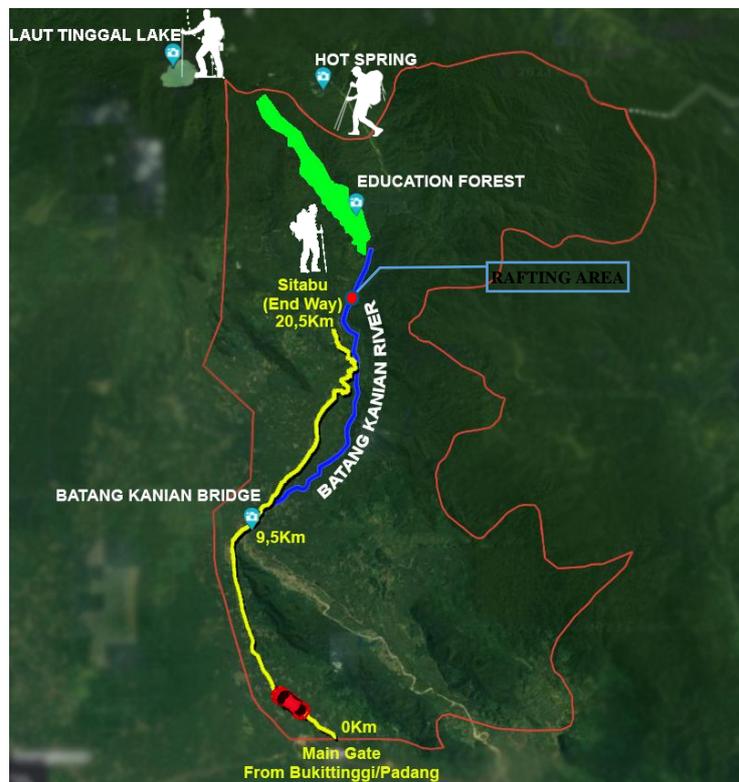


Fig 5. Overall Tourism Area Map (based on existing potential).

## 2.4. Journey To The Living Sea Lake.

### 2.4.1. Travel to Location.

Based on a travel partner from Jejak Palala Padang (LHA team), who traveled on 17 October 2019. At 17:05 WIB This trip starts from the

Simpang Empat intersection. Take the straight path towards Ujung Gading.  $\pm 23.3$  Km<sup>1</sup> until you arrive at Simpang Alin, then turn right towards Paraman Ampalu Market  $\pm 11.3$  Km<sup>1</sup> the road has been paved in moderate condition. At the Paraman Ampalu market, shop for logistics during the trip. From the Paraman Ampalu market, the road continues towards Jorong Rabi Jonggor  $\pm 7.6$  Km<sup>1</sup> The road has been paved in fairly smooth condition but not too wide. At 18.30 WIB arrived at Jorong Rabi Jonggor. At the Taqwa Rabi Jonggor Mosque rest and pray. The starting point for the climb is still 4 Km<sup>1</sup> in Jorong Sitabu with an altitude of 450 meters above sea level. The road to Jorong Sitabu is quite extreme, passing a sharp descent for 2 km<sup>1</sup> and a steep climb for 2 km<sup>1</sup>. the condition of the concrete-cast road that cannot pass each other (only enough for one car). [recommended to use a motorcycle taxi or two-axle car]. At 20.30 WIB Arrived at Jorong Sitabu. This is the location as the starting point of the climb. Cars can be parked in the courtyard of the Taqwa Jorong Sitabu Mosque. Here it is mandatory to report + permission to stay to Wali Jorong whose house has become an impromptu post that is open 24 hours, there are rooms that have been provided. At 08.10 WIB the trip started. Travel distance is about 25 Km<sup>1</sup> with 6 Km<sup>1</sup> along the Batang Kanaikan River. The first destination is the old village of Simpang Lolo, about 9 Km<sup>1</sup> or 4 Hours drive through plantations. After crossing the bamboo bridge, take a short break in a simple bamboo hut. From the hut the distance to Jorong Simpang Lolo is still  $\pm 3$  Km<sup>1</sup> more. At 12.15 WIB finally arrived at Jorong Simpang Lolo. This village is only inhabited by one head of family, the rest are only the remains of houses and schools left behind by the disaster. Take a short break while ridding yourself of the blood-sucking bloodsucker that clings to your feet. From here to the Sosopan natural hot springs with a distance of  $\pm 6$  Km<sup>1</sup> along the upper course of the Batang Kanaikan river. By the river rest and eat. The current of this river is quite swift, so caution is needed to cross it. There are rocks that have been stacked as travel signs. Trekking poles [climbing sticks] and webbings [climbing ropes] are very helpful tools when crossing this river. At 18.00 WIB arrived at the village of Aek Simarian. there were only three houses, only one of which was occupied, the other two seemed to have been abandoned. From the directions, the Sosopan hot spring is still 3 Km<sup>1</sup> upstream. Take a short break here. The hiking trail leads to the left side of the river, with the path clearly visible, with the occasional smell of sulfur in the wind. At 20.00 WIB set up a tent on the edge of a tributary that flows into Batang Kanian.

At 07.00 WIB the journey continues, this path is a little confusing, because the position of the hot water is not in the main flow path of the river, and there is also another route from the north to Sosopan hot water, [it is recommended to use a guide so you don't get lost]. At 11:00 WIB arrived at Sosopan hot spring which is at an altitude of 950 masl. The exact position is almost 300 meters, turn left following the tributary that empties into Batang Kanian. At 14.00 WIB the journey continues after prayer and lunch. From the Sopolite hot springs, our goal is to go west along the hill. From here, the travel signs are very clearly visible. The distance covered is approximately 11 Km<sup>1</sup>. From this polite hot spring to the top it takes approximately 6 to 7 hours. At 20.00 WIB arrived at the top of the flag mountain with an altitude of 1940 masl. Must be careful because there are many rattan thorns along the way. Taking a short break, the journey continues towards Lake Laut Live with a position of 1640 meters above sea level. The trip down to Lake Laut Lives a sharp descent. Average 70-75 degrees. Need to be careful. At 22.00 WIB arrived at the location of the lake with whack fatigue and then set up a tent. The next day on the outskirts of the lake. The lake water is Tosca blue and some of it looks green. There are no signs of life in the water, with a sulfur smell that may be due to the volcanic activity of the volcano.

#### **2.4.2. On the way home.**

At 10.00 WIB after being satisfied to enjoy the nature, start packing to go home. The journey begins with a steep and tiring climb of approximately 300 M<sup>1</sup>. At 14.10 WIB arrived at the Sosopan hot spring location. Rest, prayer and lunch. At 16.00 we moved back home, following the flow of the Batang Kanaikan river with a distance of  $\pm 6$  km to Jorong Simpang Lolo. At 18.00 WIB, only halfway to Aek Simarian, to be precise, it was getting dark, it was rather difficult to see the crossing path. At 20.30 WIB finally arrived at Jorong Simpang Lolo. Take a short break and continue the journey with a distance of 9 km to Jorong Sitabu. At 00.30 WIB after 4 hours of walking, we finally arrived at Jorong Sitabu.

### **3. RESULTS AND DISCUSSION**

Tourism development is a series of efforts to realize integration in the use of various tourism resources integrating all forms of aspects outside of tourism that are directly or indirectly related to the sustainability of tourism development [15]. According to George McIntyre (1993), the basic components of tourism that must be considered in preparing tourism plans consist of: Tourist attractions and tourist activities that become

tourist objects/attractions; Accommodation facilities and their services; Transportation facilities and other services; Human Resources; Other Service Facilities and Institutional Elements [16]. According to Elaine Jackson (2007), an area that develops into a tourist destination is influenced by several important things, such as: Attractive to clients; Facilities and attractions; Geographical location; transportation route; Political stability; Healthy environment; There are no government restrictions/restrictions [17]. A tourist destination must have various entertainment and supporting facilities needed by tourists so that a tourist's visit can fulfill his tourist desires and make him feel comfortable with the services offered. The various needs of these tourists include; transportation facilities, accommodation, travel agencies, attractions (culture, recreation and entertainment), food and lodging services and souvenirs [18]. The availability of various facilities that can accommodate all the needs needed by visitors, will certainly make tourists feel comfortable and satisfied with the services provided, so that it will have an effect on the increasing number of tourists who will come to visit. The tourism objects offered in the Kenagarian Rabi Jonggor tourist area are quite complex, considering that the attractiveness of tourists is increasing day by day, so careful planning is needed to manage this tourist area so that it is more representative and neatly managed both from an economic and administrative standpoint. The tourism focus that is presented is nature tourism, starting from

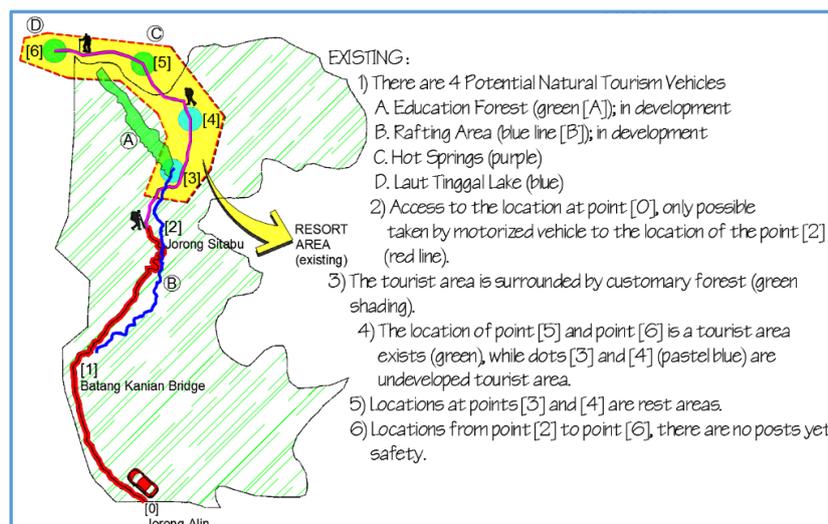
panoramic tours of natural forests that can be enjoyed on foot, rafting arenas, natural hot spring tours and panoramic views of sea lakes.

### 3.1. Tourism Area Development Based on Problem Seeking and Problem Solving.

Problem Seeking Problem Solving (PS/PS) is an approach used in architecture to identify problems and find appropriate solutions through deep understanding of user needs and goals [19].

#### 3.1.1. Problem Seeking.

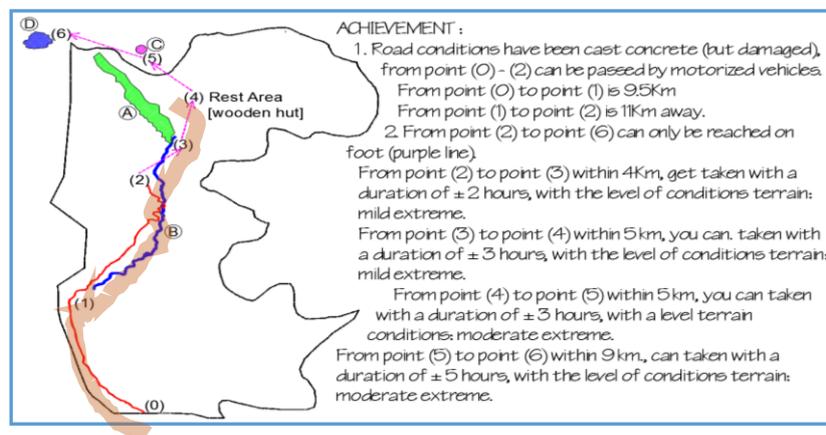
This tourist area is still unable to become the backbone for the surrounding community due to, among other things: 1) The area is not well known not because it does not have strong potential to attract tourists to visit, but because operational management is not yet professional; 2) Infrastructure capable of supporting tourism activities in this area is very minimal; no proper resting place + toilet; no standard Electricity and Communication services; 3) Circulation to and within locations that are not supported by standard security; bad road conditions so that it is worrying if an accident occurs and the achievement of first aid will be delayed; 4) The main tourism facilities are still not organized and there are too few facilities, there are only natural forests; hot springs and Dead Sea lakes, so the area's magnetism is too weak (the price one has to pay for coming all the way to this tourist area (time, effort and money) is not balanced with the nuances and atmosphere that tourism has to offer.



**Fig 6.** Macro Analysis of Regional Sites; Current conditions

The current condition in the tourist area is that there are only 2 (two) active tourist rides, namely: Hot Springs (C) and Living Ocean Lakes (D), while the Educational Forest and Rafting Rides

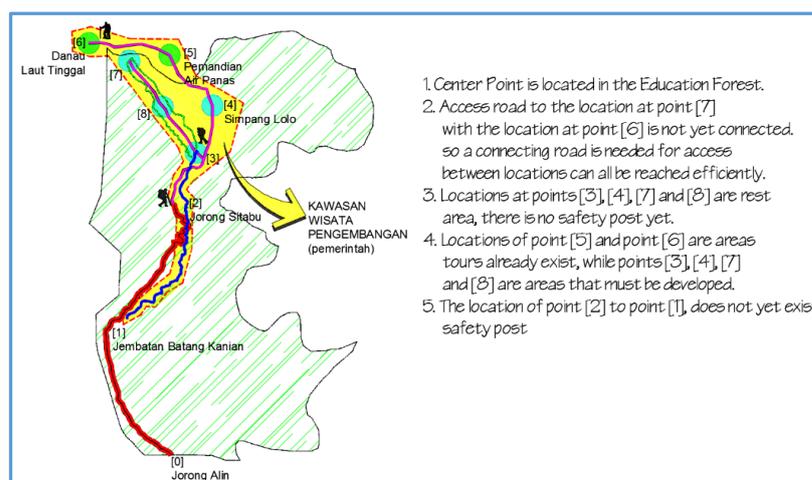
are still not developed/are still in the form of discourse, but has received approval from the community who owns the land through customary stakeholders and the local government (figure 6).



**Fig 7.** Macro Analysis of Regional Sites; Access

The path to/from and to the tourist area currently only has pedestrian paths that have not been utilized optimally, they are still natural footpaths from land filled with smallpox animals throughout the area, so anyone who passes this path will find their feet infested with these animals, despite wearing standard hiking boots and socks. And the path when it rains will certainly be very muddy. However, based on Regional Regulation of West Pasaman Regency Number 18 of 2012 concerning the Regional

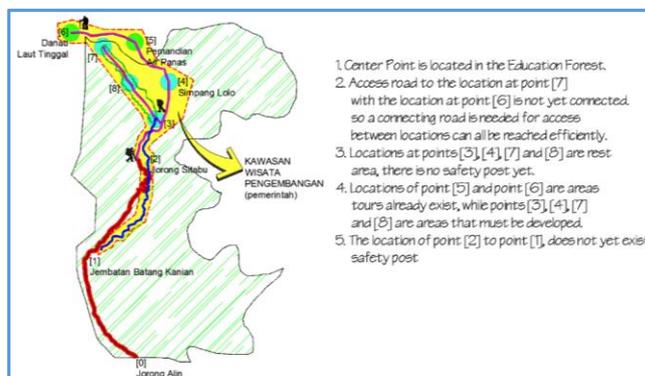
Spatial Plan (RTRW) of West Pasaman Regency for 2011-2031, Nagari Rabi Jonggor is one of the locations where road infrastructure will be improved through the development program of the primary local road network for the Robi Jonggor road section - The Lolo intersection, meaning that from the start of entering Nagari Rabi Jonggor (point{0}) to the Lolo intersection (point {4}; transparent orange line) the government will carry out paving (figure 7).



**Fig 8.** Macro Analysis of Area Sites; Land Use

The tourist area is according to field conditions, only Lake Laut Tingga as the main dish, and hot springs as an opening dish and the forest area as a support, where the lolo

intersection area is an active route that has been used as a stopover place because there is an empty village there but does not offer rides any travel.



**Fig 9.** Macro Analysis of Area Sites; Pre Landscape

The existing tourist route to reach from the point location {3} to the point location {6} is too far, where you have to pass through the point location {4} first, then continue to the point location {5}, then continue again to the point location {6}. While point location {4} is only a stopover, and point location {5} is only a hot spring, which incidentally not everyone is interested in going to it. So it can be concluded to make a new route that is more efficient, namely

by removing the path leading to the point {4} Simpang Lolo (in figure.6), and creating a new path through the educational forest (in figure.7), so that tourists can choose can go directly from point location {5} past point location {6} and point {7}, then to point location {8} (Laut Tinggal lake) or point location {9} (Hot Springs) without having to go through one of the point locations {8} first or {9} first.



**Fig 10.** Macro Analysis of Area Sites; Activity Patterns

### 3.1.2. Problem Solving.

In this design, supporting facilities and infrastructure as well as new tourism vehicles will emerge by utilizing the cooperation of the local community in order to increase SMEs, to be able to work hand in hand and synergize with the government and third parties who are investors who will carry out the development of this tourist area. the cooperation carried out includes: 1) Creating a travel agent that provides travel packages (as part of the promotion); 2) Increasing the installation of clean water, electricity and telecommunication systems which must be adequate; 3) Improved facilities and supporting facilities for climbing routes throughout the area, especially security and health posts. And also take advantage of the local government work plan from the Public Works service which will carry out the construction of the primary local road network for the Robi Jonggor – Simpang Lolo road section; 4) Making roads that allow ATV motorcycles (four-wheeled motorcycles) to pass through, which will be facilitated by local residents with a leasing system for tourists, considering that the route is very far and tiring, because it is assumed that if the vehicle's route is of the same class the car is opened, then the opportunity for the hands of the ignorant who will cause damage to the forest is clearly more open; 5) Creation of camp areas, outbound (playing areas, paintball war equipment, flying fox and other skills), lodging as forest utilization for educational/study functions and eye relaxation as well as mind entertainment by gardening in the middle of the forest; 6) Improving rafting facilities by providing equipment with international safety standards as well as safety and health posts; 7) Improvement of natural hot spring tourism facilities and infrastructure by providing

accommodation in the form of cottages plus cafes; 8) Improving the facilities and infrastructure for living sea lakes by providing accommodation in the form of cottages plus cafes, water rides for families, speedboat and jetsky arenas, as well as security and health posts; 9) Tourism management which is managed by investors in a professional manner while still involving the local community in filling out supporting facilities, starting from local food stalls to souvenir knick-knacks. Outbound is a self-development activity carried out by utilizing natural advantages. Outbound activities can be joined by all ages, both children and adults which are carried out in open spaces [20].

### 3.2. Development Based on 3A.

Concept The success of a tourist spot and the achievement of a tourism industry is highly dependent on three A (3A), namely Attraction, Accessibility, and Amenities. The following is development based on the 3A concept:

#### 3.2.1. attraction,

The zoning division in this tourist area based on the pattern of activities consists of 3 zones, namely: Main Zone, Supporting Zone and Service Zone. The main zone is the main attraction area in this tourist area, namely 3 (three) main tours; Educational Forest, Hot Springs and Living Sea Lake. The supporting zone is an area located in the main zone that functions as a buffer or support for activities and facilities in the area such as clean water, electricity supply, inter-regional communication networks, safe and comfortable road circulation paths. Service Zone is an area where all activities and supporting facilities are placed.

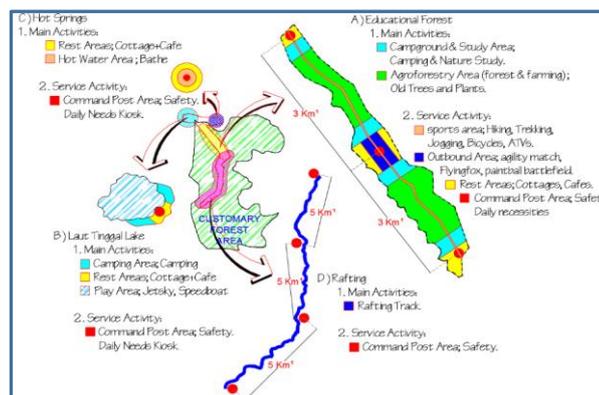


Fig 11. Zoning Makro & Mikro; Pola Zona Area

The zone pattern is tied to needs and functional proximity, the Cottage Area must be close to the manager as well as the Cottage and Camping Areas must be close together because the level of attachment is very strong. The Out

Bond Area, Rafting Area, Main Jetski & Speedboat Area must be close to the command post for easy monitoring. Each tourist area has its own magnet, so that all areas will be traversed by tourists, thus requiring good circulation routes,

capable of being passed by tourist facility vehicles and also safe for pedestrians.

### 3.2.2. Accessibility.

The condition of the road network in the Nagari Rabi Jonggor area is still far from good, that is, it is still 50-60% adequate with the condition that concrete has been poured with a width of  $\pm 3\text{m}^1$  getting smaller to the end, leaving only roads for 2-wheeled vehicles only, which is the main road in Jorong Sitabu with lots of potholes, and the other 40-50% with dirt footpaths. As previously explained, based on Regional Regulation of West Pasaman Regency Number 18 of 2012 concerning the Regional Spatial Plan (RTRW) of West Pasaman Regency for 2011-2031, Nagari Rabi Jonggor is a location that will improve its road infrastructure through the development program of the primary local road network section the Robi Jonggor - Lolo Intersection, it is necessary to work with the local government to move part of the planned road route that goes to the Lolo intersection to a special educational forest path that can only be taken by ATV motorbikes, no need to increase the road for 4-wheeled vehicles (cars) , because it will open opportunities for irresponsible hands to take forest products only for personal gain, so it is certain that this will trigger even greater forest damage. To reach a tourist location whose access is in Jorong Sitabu Kenagarian Rabi Jonggor, Gunung Tuleh District, West Pasaman Regency, there is no special mode of transportation available to the tourist site, this requires tourists to use private vehicles to the end of Jorong Sitabu, then start on foot until to location. For this reason, a special mode of transportation for tourism will be provided that can be called via radio

communication and the like, which will always be on stand-by at the post waiting for orders to pick up tourists coming to this area, at the entry point to the end of the yellow line (figure 13). Because it can be said that this area has many natural attractions such as protected/customary forests, educational forests (designed by Dr. Paus Iskarni, M.Pd) and also has agroforestry forest areas in the form of old agricultural plants such as: durian, avocado, manga, and fruits other fruits. So with that one accommodation can be developed other than ATV motorbikes such as comfortable bicycle paths, so that both the local community and tourists who stay overnight in campgrounds or who stay in cottages rented out by the manager, can enjoy the beauty of the forest area that is so beautiful, while picking and enjoying natural produce straight from the garden and exercising pedaling his bicycle or jogging either in the morning or evening. Forestry is the sustainable management of forest ecosystems which involves planning and implementing actions to maintain and enhance ecosystem quality and the economic use of resources [21].

The zone pattern is tied to needs and functional proximity, the Cottage Area must be close to the manager as well as the Cottage and Camping Areas must be close together because the level of attachment is very strong. The Out Bond Area, Rafting Area, Main Jetski & Speedboat Area must be close to the command post for easy monitoring. Each tourist area has its own magnet, so that all areas will be traversed by tourists, thus requiring good circulation routes, capable of being passed by tourist facility vehicles and also safe for pedestrians.



Fig 12. Access patterns to and within tourist areas

The yellow line is the road planned by the government in collaboration with the design. The blue line is part of the river channel that will be used as a rafting agility route with 3 (three) classes; class I distance of 5 km, class II distance of 10 km and class III distance of 15 km. The red line is a hiking/trekking, bicycle and ATV route which also collaborates with the government's road plan which we have moved to become this route which previously went to Simpang Lolo.

### 3.2.3. Amenities.

Tourist facilities are supporting things but play a very, very important role for the creation of comfort, security and serenity, as a strong magnet for tourists to become one of the reasons for coming to visit a tourist destination. In addition to covering supporting facilities such as infrastructure and supporting facilities at tourist

sites, this point also examines how the management of these tourist sites. The supporting facilities at the Kenagarian Rabi Jonggor tourist site, Gunung Tuleh District, West Pasaman Regency differ according to the needs that exist at each location point which is spread throughout this tourist area. The development of existing facilities in tourist areas is also very closely related to existing accessibility in these locations, where access conditions which become entry routes, crossing routes and exit routes (regional circulation patterns) determine the placement of facilities. Likewise with the zoning/function of each space made at this facility point, preferring to focus on the needs of accommodation facilities (safety, health and comfort) in the form of guard posts scattered at every point, as well as additional entertainment facilities that can support tourist attraction for this tourist area.



Fig 13. Site Plan Facilities Design; Macro

#### 4. CONCLUSION

The conclusions that can be drawn based on research objectives regarding the potential development of tourist areas in Kenagarian Rabi Jonggor, Gunung Tuleh District, West Pasaman Regency are: 1) Problem Seeking and Problem Solving of tourist areas based on existing conditions are: a) Basic infrastructure conditions such as roads, drainage, telecommunications, electricity, and clean water are inadequate and some don't even exist; b) Tourist facilities such as lodging, souvenir shops, travel agents at tourist sites do not yet exist; c) Existing tourist attractions without good management by related parties; d) The conditions for going to tourist sites are very extreme, it needs good planning. 2) Developing the tourism potential in Kenagarian Rabi Jonggor based on the concept of Problem Seeking And Problem Solving, namely: a) Creating a travel agent; b) Adequate installation of clean water, electricity, telecommunication systems and roads; c) Improvement of facilities and supporting facilities with international security standards as well as security and health posts; d) Tourism management which is managed by investors in a professional manner while still involving the local community. 3) Development of potential tourist areas in Rabi Jonggor Kenagarian based on the 3A concept, namely: A) Attractions: Development of natural attractions is focused on areas that are included in the core

zone, namely areas that have tourist resources, while the development of other natural attractions can be developed in support zones while maintaining nature conservation in this area with local wisdom and in the service zone can be developed types of artificial attractions; B) Accessibility: 1) What really needs special attention in this case is the circulation of roads leading to and within tourist areas. The government should be able to hasten the repair and improvement of the road by including it in the existing village fund budget because the road is a village road in accordance with the RTRW plan that has been prepared beforehand; 2) Repair/increase existing transportation facilities around the tourist area to and from Kenagarian Rabi Jonggor so that they can be reached easily; 3) Collaborating with developers in managing tourist areas so that they are managed professionally. C) Amenities: Create working groups in the community that are accommodated to be able to participate in improving this area, especially around the area by creating and activating SMEs that are based on tourism activities, so that indirectly it will open up many new jobs, increase income from the field existing jobs, raise the dignity of the community and increase the overall income savings for the Rabi Jonggor Kenagarian area.

#### 5. REFERENCES

- [1] Alexander, Christopher. 1979. *The Timeless Way of Building*. New York; Oxford. University Press.
- [2] Kevin Lynch, Gary Hack, and Mary Cervero. 1984, *Site Planning*. Cambridge, Massachusetts, United States of America; MIT Press.
- [3] Kamus *Besar Bahasa Indonesia*.
- [4] Republic of Indonesia Law No.10 of 2009 concerning Tourism.
- [5] Republic of Indonesia Law No.26 of 2007 concerning Spatial Planning.
- [6] BPS West Pasaman Regency, processed from Gunung Tuleh District in Figures 2020.
- [7] Regional Regulation of West Pasaman Regency Number 18 of 2012 concerning the Regional Spatial Plan (RTRW) of West Pasaman Regency in 2011-2031.
- [8] Letter of Power of Attorney/Grant for the land of the Simpang Lolo area to Dr. Paus Iskarni, M.Pd [Lecturer at the Department of Geography, Padang State University (UNP), regarding the right to manage/preserve forests as educational forests.
- [9] Syahmardi Yacob. 2021, *Strategi Pemasaran Desa Wisata*. WIDA Publishing, FEB UNJA.
- [10] Oxford English Dictionary.
- [11] [www.ilmugeography.com/ilmu-bumi/hidrologi/mata-air-panas](http://www.ilmugeography.com/ilmu-bumi/hidrologi/mata-air-panas)
- [12] [www.blog.reservasi.com](http://www.blog.reservasi.com)
- [13] [www.liburanyuk.co.id](http://www.liburanyuk.co.id)
- [14] Oka A. Yoeti. 1991. *Pengantar Ilmu Pariwisata*. Bandung; Angkasa.
- [15] Swarbrookes. 1996. *Pengembangan Pariwisata*. Jakarta; Gramedia Pustaka.
- [16] McIntyre, George. 1993. *A Tourism and the environment publication*. Madrid, Spain; World Tourism Organization.
- [17] Elaine Jackson. 2007. *Perjalanan Wisata Mesir Mengenal Ragam Budaya dan Geografi*. Solo; Tiga Serangkai.
- [18] Pitana, I Gde. et al. 2009. *Pengantar Ilmu Pariwisata*. Yogyakarta; Publisher Andi.
- [19] William Pena and Steven Parshall. 1970, *Problem Seeking: An Architectural Programming Primer*. New York, United States of America; McGraw-Hill.

- [20] Saeful Zaman and Dyan R. Helmi. 2010, *Games Kreatif Pilihan untuk Meningkatkan Potensi Diri dan Kelompok*. Jakarta; Gagas Media.
- [21] L. Devere Burton. 2000. Introduction to forestry science. Delmar Publishers.