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UNITED NATIONS ENVIRONMENT PROGRAMME



INVESTIGATION UPON THE ENVIRONMENTAL IMPACT AND POSSIBILITIES  
FOR DEVELOPMENT OF TOURIST ACTIVITIES IN THE TAYRONA NATIONAL  
PARK, DEPARTMENT OF MAGDALENA, COLOMBIA

Prepared by

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The views expressed in this document are those of the Consultant and do not necessarily reflect the views of the United Nations or of any CDCC Member Government.



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CEPAL

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This report has been prepared thanks to a consultant's contract that took place with the United Nations, CEPAL as part of the programs of the Unit of Development and Environment. The contents of this report is geared criteria about the possibilities and limitations that the development of tourist activities in areas of natural reserves in general and specifically in the Tayrona National Park, located in the North Coast of Colombia.

The National Institute for Natural Renewable Resources and for the Environment, INDERENA, is the colombian government's entity, that could benefit from the findings of this report. For this reason, a series of considerations, applicable not only in the case of the Tayrona Park but also to the other National Parks of Colombia, have been included. The proposals referent to the Tayrona case, may be adopted as part of the social politics of management and control of the area and will be given to the consideration of other government entities which are in charge of this region.

The authors would like to thank the United Nations as well as INDERENA for the support given to this work, which results hopefully will render basis to continue the defense of the public patrimony of Colombia and other Latin American nations.

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## DESCRIPTION OF THE PARK

### GEOGRAPHIC LOCATION

The region where the National Tayrona Park is located corresponds to the central part of the North Coast of Colombia. From the point of view of administration it belongs to the Department of Magdalena and specifically to municipality of Santa Marta. Geographically it is located at 11° 6' north latitude and 75° 53' west longitude, northeast of the city of Santa Marta. This territory is made up by the outskirts of the "Sierra Nevada de Santa Marta" and by the littoral of the Caribbean sea.

### LEGAL ANTECEDENTS

The Park was created by means of the Resolution No. 191 of INCORA (Colombian Institute for Agrarian Reform), as requested by the C.V.M. (Corporation of the Valleys of Magdalena and Sinú) and after the favorable concept of the Colombian Academy for Exact sciences, Physical and Natural. Such Resolution given by INCORA was confirmed by the Executive Resolution No. 255 of 1964 (Presidency of the Republic).

The inconveniences that were observed, due to the inclusion of the bay and the town of Taganga within the limits of the Park made imperative a new arrangement that excluded the town and the bay. INDERENA, that at the time, already managed the area, put into practice such exclusion, by the Agreement No. 4 of April 24th., 1969. Such Agreement was ratified by the Executive Resolution No. 292 of August 4th., 1969.

## GEOGRAPHICAL CHARACTERISTICS

The surface currently covered by the Park is approximately 15.000 hectares of which 12.000 correspond to land and 3.000 to the ocean frame. The Park is made up of a coastal zone of 35 kilometres approximated ~~length~~<sup>length</sup> with an average of 3 kilometres width, with heights that go from sea level, up to 1.000 meters at the highest mountain peak. At the east, its boundary is the Piedras river and at the west is Punta Minas, close to Taganga. Its lands belonging to the northern basin of the Sierra Nevada, present a changing and wavy topography that configures three zones clearly differentiated (see map No. 2A). The first zone in the extreme west, between Punta de Minas and the small bay of Cinto is characterized by a succession of small bays (Concha, Gayraca, Neguange and Cinto), with particular geomorphological conditions. In the second zone between Cinto and the small bay of Cabo, cliffs and small beaches are predominant. The third zone, to the east, between the small bay of Cabo and the beaches of Cañaveral, is made up by beaches open to the ocean with flat lands nearly continued in all of their extension.

The shore of the Tayrona Park is quite irregular, most of the ocean platform is very perpendicular and in some cases it presents abrupt cuts at some meters from the beach. To the east of Cape of San Juan del Guía, we find reefs near to the beach that diminish the strength of the movement of the ocean, quite strong in the eastern beaches exposed to the open sea.

The most outstanding orografical accidents are the following: Hills of Taganga with 500 meters above sea level; Aguas Muertas mountain with 900 meters above sea level, and the mountains of Palmarito and San Lucas with 1.000 meters above sea level. The hydrography of the Park is made up by a series of minor basins that stay dry a great part of the



year. Their existence gradually increases towards the eastern section, as for example with the brooks of Cinto, La Boquita and Santa Rosa, that keep their waters all year round.

The average yearly temperature ranges from  $19^{\circ}$  to  $33^{\circ}$  centigrade between the highlands and the beaches. In the eastern sense there is less variation and there is a general average of  $27^{\circ}$  centigrade at sea level. The months of December, January, February, March and April make up the driest season. The months of July, August and September are dry although with less intensity. The remaining months are rainy, October and November being the ones with greatest volume of rainfall. The estimated rainfall in millimeters give a maximum of 1.046 millimeters in the zone of the Piedras river and Cañaveral, and a minimum of 285 millimeters in the small bay of Gayraca. The relative humidity is low in the western section and gradually increases, until it becomes very high in the eastern section. Strong winds are presented in the section between Punta de Minas and de Cape of San Juan del Guia; while in the remaining section only breezes are present during some periods of the year (map 2A).

PROPOSALS FOR THE ADMISSION OF VISITORS INTO THE NATURAL  
NATIONAL PARKS OF COLOMBIA

GENERAL CONSIDERATIONS

A Natural National Park is an area on territory in which the resources of landscape, flora and fauna exist in such state that they demand their conservation and protection as a permanent reserve of wildlife. The natural state of the territory and of its inhabitants indicate that human intervention has been and is still, a minimum, and for this reason, the existing ways of life are found practically free from the interference that causes the presence of human settlements, the exploitation of resources and the depredation caused by sport hunting and fishing, the burning and the cutting of woods and the appropriation of the physical space.

The declaratory of a territory as Natural National Park, has precisely the goal of conserving and perpetuate the natural and cultural values that are patrimony of the nation. The code for Natural Resources defines as Natural National Park:

"An area of extension that would allow the ecological regulation of itself and whose ecosystems in general have not been substantially altered by the human exploitation or occupation and where the species either vegetable or animal, the geomorphological complexes, and the historical and cultural manifestations have scientific, educational, esthetic, and national recreational value and that for its perpetuation renders itself to a regime of adequate management."

As it is quite obvious, the delimitation of a Natural National Park presupposes the existence of values that have

enough incentives to enter the field of touristical interest. This interest is greater when the park's territory is located near areas or centers in which tourist activity takes place, or at least near large cities which count with inlets and outlets for visitors: airports, train stations, etc.

The national parks in Colombia are found in different degrees of relationship with the networks of settlements and communications. The following, may be considered as extreme situations.

a) Isolated parks which connect with quite a difficulty with the networks of settlements due to the distance. These parks generally count with one only path of communication, be it, by land, by river, by air or by ocean. In its surroundings there are neither large towns, nor networks of towns. When these exist, they are small settlements or minor villages located over the path of connection. Example of these parks are El Tuparro in the territory of Vichada, El Amacayacú in the Amazonas and the Káticos in the Department of Chocó.

b) Integrated or semi-integrated parks, located near existing networks of settlements and communications and with easy connection with them. Their situation turns them into places of interest for visitors not only from the surrounding areas but outside of them. Examples of such parks are the Tayrona in the Department of Magdalena, as well as the Island of Salamanca in the same Department, the Farallones in the Department of Valle, and Purace in the Cauca.

The two extreme situations in the location of the national parks, also presupposes different regional situations. The first ones are generally found in areas where agricultural or virgin lands predominate, without mayor human exploitation, whereas the second ones, are found in the middle of,

or near to zones that are populated and intensively developed. The regional situation defines in fact a specific economic situation, and also defines in some aspects what a National Park may represent for the regional economy as a pole of recreational activities and in general as a pole for attraction.

#### RECREATIONAL INTERESTS IN A NATURAL NATIONAL PARK

There exist in a Natural National Park, a series of resources that represent interests for visitors or "tourists". These resources are as follows: Topography and natural landscape, woods, earth fauna, litorals or small bays, maritime fauna, water sources, and archeological or cultural remains.

The interest felt by possible visitors of these territories, is expressed in two basic forms: Observation and appreciation of the resources, and appropriation and gain from the resources. The tourist, in the conventional sense of the word, is interested in taking over the land he visits, and he feels the need to use whatever resources are at hand. The presence of animals brings over the need to hunt them or capture them. Pure water brings over the need to use it, etc. Common tourism feels that simple observation of the resources is too limited, and that without appropriation there is no recreation. This attitude brings over the need of previously educating the tourist who wishes to visit a Natural National Park.

For it would not be possible to receive such tourist without measures of orientation and organization that would help to prevent any possible errors while the remaining of the visitor inside the Park.

The limitations which are true to the territory of a Natural National Park, in a certain manner contribute to di-

This property of integrated and semi-integrated parks could be taken advantage of, as a special factor for the economic development of the surrounding region. The possibility of entering the Park and appreciating its resources without remaining within its territory, allows us to think about perimetral development, endowed with adequate infrastructures to lodge great numbers of tourists, who would count with the park as one of the possible attractions of the region. Closing the visitors within the Park would not give them some possibilities for developing economically the surrounding areas.

The presence of visitors within a Natural National Park cannot be either open or free. Be it, visitors that remain or daily visitors, their entrance and movement inside the park's territory should be guided by the authorities in charge of the Park.

The activities allowed to the visitors during the time of their stay, should equally be guided to the appreciation and observation of the natural resources and those which may cause any bad effects in the natural environment should be restricted.

The fact of admitting visitors inside a Natural National Park, demands the preparation of people to appreciate the existing resources and in order to learn through this appreciation, to better understand the problems of the environment and the possibilities of a better management of the goods represented by the parks, and in general, the natural resources of the nation. For this reason, in any situation of entrance, the entity in charge of the Park should provide basic environmental education made mandatory for those who wish to visit or remain inside the Park. This education could be given in a direct or an indirect manner, through meetings, presentations, documents and other type of aids.

fficult the recreational activities, in the measurement in which these depend on services and the structure for them to take place. The lack of roads, for example, the density of the vegetation, the lack of networks of purified water, of electricity and other deficiencies that stem from the natural condition of the territory, determine for themselves difficulties for the presence and remaining of visitors in the area. Camping is the most common manner to be able to stay within a natural territory without requiring any special structure doesn't represent any mayor inconvenience, except, that is, for the possibility of hunting and other forms of appropriation of resources on the side of the people who are camping. In great quantities, camping produces quite negative effects, since the activity of the visitors takes over too much space and their demands for services are not adequately satisfied by natural sources.

#### PRESENCE AND LODGING OF VISITORS IN NATURAL NATIONAL PARK

From the point of view of giving lodging to visitors to a Natural National Park, the isolated parks present a different situation from the integrated or semi-integrated parks. An isolated park where visitors arrive and are admitted by the authorities in charge for it, counts with a greater demand for lodging due to the difficulty that represents the entrance and exit to its territory.

In an integrated or semi-integrated park, the possibility for entrance and exit is quite greater and the intake of daily visitors is likewise. In this type of parks, the remaining of visitors is not a must, the existing settlements in the surroundings can provide such lodging and the Park may be visited only by people who would benefit from a one day stay.

ing are needed:

a) Stand for control of entrance and exit, with basic services for visitors as well as control personnel.

b) A center for services and information for travelers visiting the Park, that would cover, food and sanitary services, an information center, and services for guards and the rest of the personnel.

c) Adequate sites for camping, or premises for resident visitors with food and sanitary services, as well as the necessary administrative and control services for the adequate permanence of people in the zone.

The presence of premises or sites within a Natural National Park, implies the endowment of at least of three basic services: purified water, electricity and waste disposal. Any kind of intervention made on the territory to obtain any of these services implies at the sometime the need of not altering considerably the natural conditions of the territory. The capacity of bearing of an area is given by the balance between the availability of these services and the impact on the environment. The adequate technology that can help to provide these services is in itself special and different from the conventional means. The bearing admitted by such technology is not wideranged, which also defines a capacity for entrance and permanence of visitors is any given section of a Natural National Park, different from the conventional tourist demands.

We must make clear that the concept of "uses" within a Natural National Park, is not applicable in any regulation plan, since the presence of investigators, visitors, and management personnel is not based in any use in particular. Each one of them is in the Park and has a specific end. Nei-

According to the above mentioned, for the presence and lodging of visitors in a Natural National Park it is necessary to bear in mind the following steps:

- a) Control at the entrance. Previous application for admission at the arrival at the Park, preliminary basic information and presentation of credential or document of admission at the moment of arrival.
- b) Information about the Park at the moment of entrance to it. This information could be given by means of audiovisuals, videofilms or conferences.
- c) Previous determination of the visitors destiny, either if the visitors is a resident or a traveller
- d) For daily visitors or travelers, movilization to the places of arrival (beaches, rivers, observation spots) and orientation about their possible activities.
- e) For the resident visitors, movilization to the places of permanence and information about their conditions.
- f) For residents, programs about environmental education during the days of their permanence in the Park.
- g) For travelers, transportation out of the place of control, from where they could take some sort of public or private transportation to their places of lodging.

This plan for organization of visitors is common to the centers of social tourism, and in some exclusive places like "Club Mediterranee". The steps shown also indicate the need to construct some buildings and an adequate structure in response to the presence and the lodgings of the visitors and the personnel to be in charge of their control, education and orientation. first of all, the follow-



ther of them profits from the resources; rather, they study them, they protect them or appreciate them. In this sense the only use that is introduced in a Natural Park is recreation, which to a certain extent benefits from the advantages and the attractions of well preserved nature. Even in this manner the visitor cannot conventionally use these attractions nor these advantages, he simply observes and participates of them.

The activities common to people who enter a Natural Park are common to the activities of investigation (observation, collection of samples, analysis, control, etc.) and of permitted recreational activities. The last mentioned, is not the activity commonly associated with recreation, since it is not advisable for example to build sport fields or similar sites. Nature itself provides the space and the resources so that recreation should take place under those conditions, it is unthinkable, for example the practice of water ski in the small bays, but sailing of small boats could be permitted.

#### PROPOSAL FOR THE ADMISSION OF VISITORS INTO THE TAYRONA NATIONAL PARK AND LOCATION OF ACTIVITIES

The study that took place in the Tayrona National Park and the considerations previously exposed in respect to the admission of visitors into National Parks, has given enough basis for the following proposal. We should emphasize the following characteristics of the current situation:

- a) There are only three existing ways to enter by land and that communicate the coast with the main highway.
- b) There exists a complete network of pre-columbian roads, at the moment covered by vegetation. These roads could be recovered to make up the inner network for pedestrian paths (map 3 B).
- c) There exists already admission for resident visitors in

the camping of Cañaverales. This section, because of its location in the extreme eastern part of the Park, does not represent any mayor problems of environmental shock, and serves as a station for the visitors who wish to explore the archeological site of Pueblito.

d) In the section of the small bays of Gayraca and Neguanze, there exists a very well located place, from which the two small bays can be seen and with appeance and characteristics of environment allow the location for a place of entrance for visitors, and also of services without any mayor environmental shock. This place is served by the existing road.

e) The small bays can communicate by maritime means, through adequate ships that may take visitors from Santa Marta, on a daily basis and that would include the entire context.

f) The main ~~per~~centage of the area of the Park is in satisfactory ecological conditions and it must remain in such manner.

These characteristics indicate the following possibilities (Map 3 A):

a) To determine only three places of access for visitors, with vehicles or without them. These three places, located at the entrance point of the existing roads into the Park, will have the necessary premises for information, and entrance and exit control.

b) To keep and adequate the camp-site of Cañaverales, with the existing capacity. To construct a visitors center appropriate for this section and to control effectively the entrance capacity.

c) To build a new site for camping in the section of Gayra-

ca-Neguange, in the other extreme of the Park with the same capacity as that of Cañaverales. These two would be the only areas where resident visitors would be admitted in the Park, each one with capacity for eighty (80) tents.

d) To construct centers for traveling visitors in the following places: Bahía Concha, Chengue, Gayraca, Neguange, Cinto y Pueblito. These centers will count with premises for information and control, watching over, investigation, feeding and sanitary services.

e) To construct places for shipment and arrival of visitors in the small bays, right on the site or close to the places of vigilance and control.

Each one of the centers for resident visitors should be calculated in terms of a resident's population of 320 people per day. This is equivalent to a 100 room hotel, more or less. The centers for traveling visitors should be calculated on an average of 200 visitors per day, that would be the maximum admitted per small bay or place. The daily admission to the Park during this first stage could reach the number of 2.000 visitors.

The above mentioned possibilities represent a first stage in the intake of visitors to the Tayrona Park. This stage will definitely be geared towards environmental education and to constitute, within the Park a new system of controlled recreational activities and geared towards the respect and conservation of resources.

During this first stage, the general emphasis of the program is geared to lay down basis for an administrative organization, educational as well as recreational. The INDERENA should define some clear politics of management of the Park, establish the necessary conventions with other institutions and develop the necessary programs to

make up a new system of entrance of visitors and profit of the Park.

The educational and recreational programs that must be designed for this stage, can assume a variety of styles, according to the groups of visitors to be admitted, according to the organization that these groups may assume inside the Park, and according to the projection of those programs to be diffused throughout the nation. Preference should be given to the following types of groups:

- a) Organized groups of students and teachers of primary, secondary and university level.
- b) Groups of people belonging to societies or associations dedicated to investigation, to cultural activities, or to the protection of the environment.
- c) Organized groups of families or of people of different ages that present themselves previously as part of the group.

The educational and recreational programs will tend to prove the possibility of enjoying the attractions of any natural area without causing deterioration and should stimulate the wish for conservation of the environment, not only in the areas of reservation, but also in the regular places of residence and everywhere in the country.

In the second stage the sites for camping proposed, can be transformed into permanent premises similar to hotels or inns, regulated within the educational alignments of the Park and constructed according to the technical rules already mentioned. Guaranteed the stability of the system of organization, education and recreation of the Park, the services of lodging could also be extended to other places: Concha, Cinto, and Arrecifes, without going over the capa-

city of 150 residents in each place.

Once these premises and enlargements are carried out, the program for maximum admittance of visitors is considered completed. A limit of approximately 1.000 permanent residents aside from the 2.000 daily visitors is established. Three thousand (3.000) people per day in the park's area require of quite an effective and careful organization.

At a regional level this admission implies the presence of a maximum of 700.000 visitors per year that demand tourist developments for their lodging. In Santa Marta, 1982, 528.031 visitors were registered. The attraction of an untouched park that has not altered its ecological conditions can increased considerably the influx of regional tourism.

#### SPECIAL REGULATIONS

These proposals are based on the supposition of an adequate vigilance and control not only in the entrance and exit of visitors but also on their permanence. Any fault in the system of vigilance and control would imply the opening to vandalism and violence that could at a certain moment ruin the Park.

The following rules are considered necessary:

- a) Permits for permanence would be given for resident visitors up to a maximum of six days. This measure tends to permit a greater opening of the sites of residence and will avoid excessively lengthy seasons.
- b) The resident visitors should make reservations in advance, in offices prepared for such arrangements in Santa Marta. Such communication can be done by telephone but it should be confirmed by letter and a credential will be gi-

ven for the entrance. This system already exists in a variety of vacational centers throughout the nation, and has proven to be effective.

c) The resident visitors will receive complete information in reference to their possibilities and limitations, prior to their entrance. This will guarantee the avoidance of difficulties for lack of previous information.

d) The resident must assist to three educational sessions. The first one at the moment of entrance, will be destined to a general explanation of the Park and of the sites of staying and exploring. The two remaining ones will be destined to show several aspects of the wildlife of the Park and of environmental education in general.

e) The traveling visitors will solicit entrance directly at the control offices and will be placed in groups in order to receive instructions and for movilization to the sites to be visited.

f) All visitors will receive a manual of description and explanation of the Park, of its sites of the available premises, and of the ecological behaviour to be expected.

g) The scientific investigators that visit the Park may take to the system of entrance of visitors, if it is convenient to them. They will have special treatment according to the goal of their mission and according to their need for special sites in agreement to their work. In this case in each center for visitors spaces for lodging and work will be reserved, and they will be assigned by the INDERENA.

This internal measurements for admission of visitors in the Tayrona National Park can adequately be complemented with measures tending to stimulate the centers tourist

sites in the park's surroundings, specially along the main highway.

The INDERENA as the entity in charge of the management of the National Park of Tayrona considers possible the development of permanent places for the lodging of visitors in the sites indicated, if the complete control of such premises is to take place by the government and particularly by this institute itself. The specific study of the possibilities of locating permanent premises for visitors inside the Park will take place with the support of FONADE (National Fund for Projects of Development), once the contents of this report is analyzed by INDERENA.

The INDERENA does not count with its own funds for the development of a complete program of admission and control of visitors within the Park. The possibility to give this activities some kind of impulse, in the terms defined herewith, just like the decision of establishing permanent premises, depends on the adequate funding. To obtain this funding, INDERENA considers feasible resorting to two means:

a) A loan from the National Corporation of Tourism to INDERENA within the given limitations by the criteria of admission of visitors and of the regulations of the time of their permanence established by the Institute.

b) The establishing of societies of mixed economy, with funds of private investors and with a majority of shares from the government. These societies would establish a contract for profit that would stipulate the public properties of the grounds and the premises for visitors are to be located and the reversion of the buildings to the state at the term of the respective contracts or if there is lack of fulfillment in reference to the conditions stipulated in such agreements.

From the point of view of the present study, the position of INDERENA is acceptable if and when the determined conditions for the entrance of visitors in the natural reserve areas, are fulfilled. Besides, it is considered important to establish a series of conditions that can be summarized in the following items:

a) To frame the plans of development of recreational activities and of entrance of visitors into the Tayrona National Park within considerations of regional kind in which at least to public entities directly linked with the problem would intervene: INDERENA and the National Corporation of Tourism. There already exists a signed agreement for such effects. The discrepancies arisen up to the moment can be studied once the INDERENA considers that the proposals taken place through this study, could be adopted as its official policy.

b) The National Corporation for Tourism could start a development plan for the zones close to the Park, with views to stimulate the presence of visitors that would count with possibilities of entering the reserve area and who would also count with adequate endowment for their lodging and recreation outside of the limits of that area.

c) INDERENA requires to modify its structure of management of the Park, once it begins the increment of admission of visitors and the construction of premises to endow the chosen sites with services. The mechanisms for vigilance and control like the programs of environmental education are essential for the good development of the plan.

d) The ~~constructions~~ <sup>buildings</sup> and permanent sites that would take place inside the Park, must be regulated by INDERENA. For this reason the importance of the technical study and the definition of adequate types of premises of visitors'

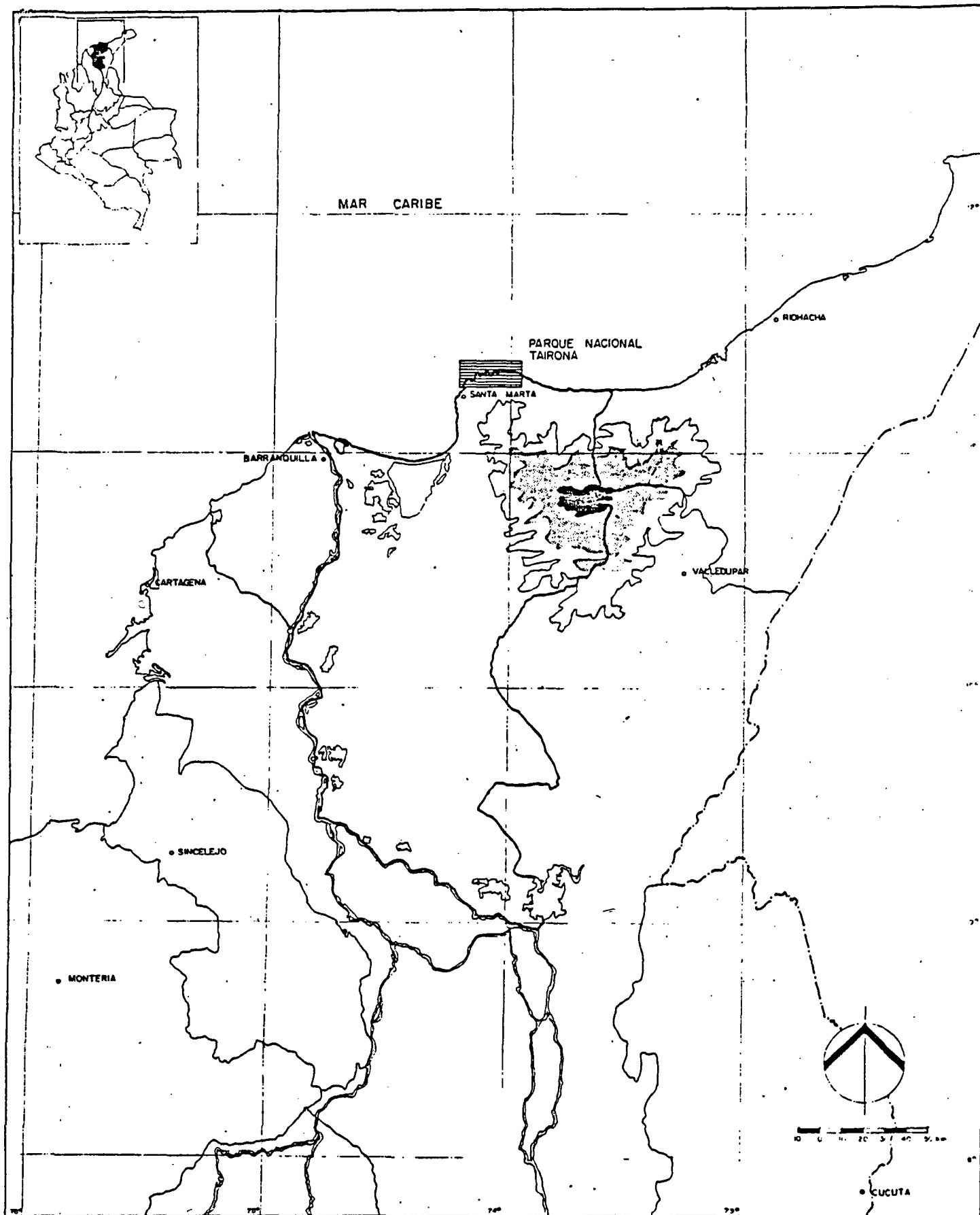


centers and, further on, of lodging for residents.

It is definite to clarify that, all of these possibilities are antagonistic with the intentions of allowing the presence of commercial premises of national or international tourism, inside the Tayrona National Park.

It is intended to define the possibility of developing "ecological tourism", modality that would have no resemblance whatsoever the conventional commercial models. The only way that this type of recreation may develop is through a strict control on behalf of the government of its properties and sites. The contrary would be to place an area of natural reserve at the disposal of those who wish to destroy the environment in order to obtain commercial profit.





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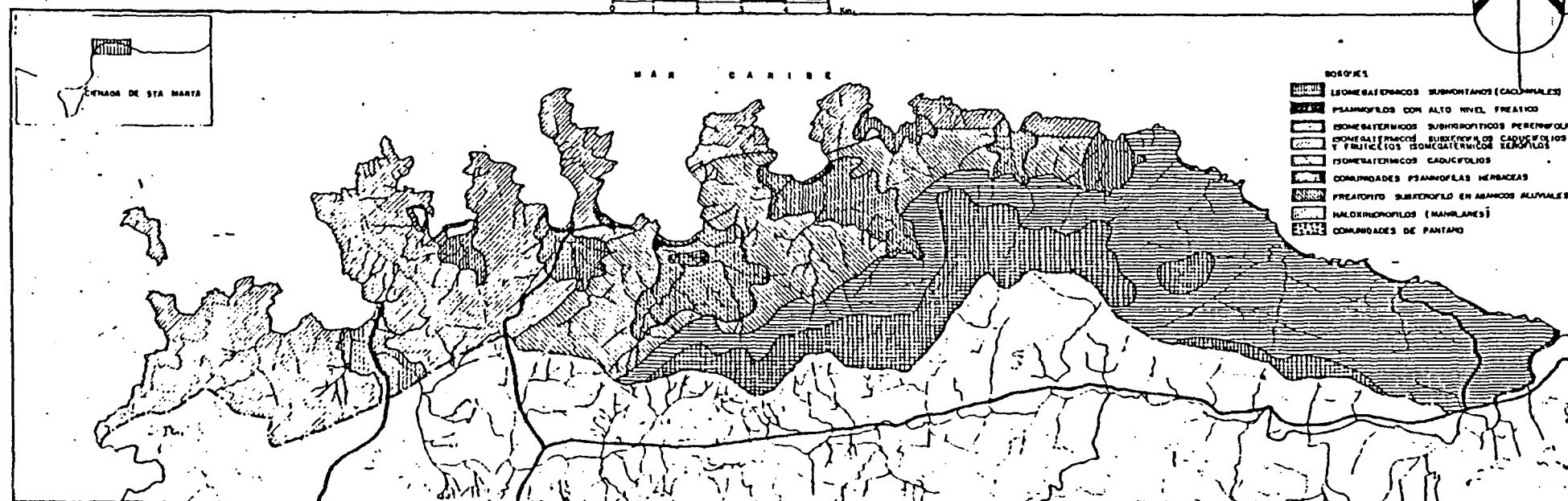
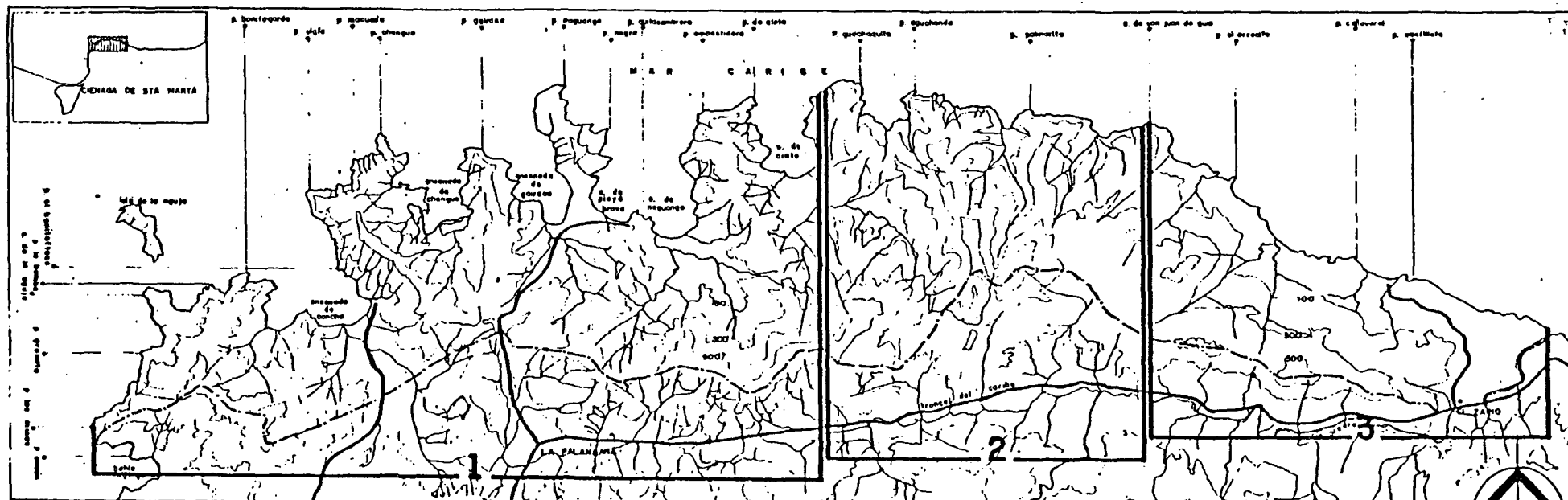
ESTUDIO DE IMPACTO AMBIENTAL Y  
PROPUESTA DE LOCALIZACION DE ACTIVIDADES  
TURISTICAS EN EL PARQUE NACIONAL TAIRONA  
DEPARTAMENTO DEL MAGDALENA. COLOMBIA.


CONTENIDO

LOCALIZACION DEL  
PARQUE NACIONAL  
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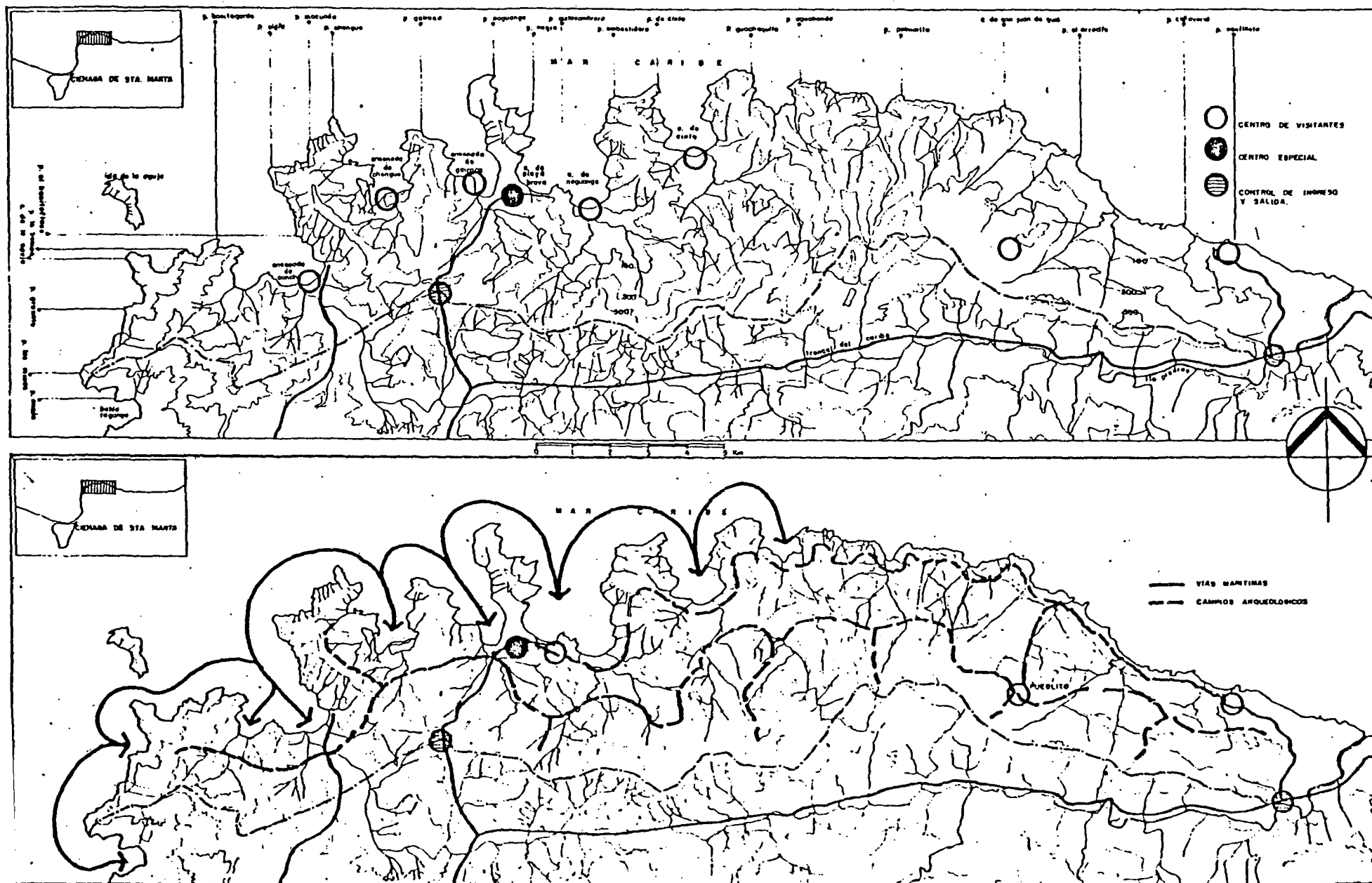






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		PLANO GENERAL PARQUE TAIRONA	A	
		VEGETACION EN EL PARQUE TAIRONA	B	
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ESTUDIO DE IMPACTO AMBIENTAL Y  
PROPUESTA DE LOCALIZACION DE ACTIVIDADES  
TURISTICAS EN EL PARQUE NACIONAL TAIRONA  
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CONTENIDO  
LOCALIZACION DE INSTALACIONES PARA VISITANTES  
RECORRIDOS INTERNOS DEL PARQUE

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