



# ASTA

Azioni  
per la Sostenibilità  
del Turismo  
nell'Adriatico



## A common strategy for tourism development in the coastal areas of the Adriatic Sea



**REGIONE  
MARCHE**

Council Department of Environment  
Department of Environment and Landscape  
Environment Safeguard, Sustainability  
and Cooperation Unit



EUROPEAN UNION



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Interreg IIIA Programme





**Partner**



Region of Valona  
Albania

**In cooperation with the former**



Council Department of Tourism  
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## SUMMARY

PRESENTATION .....	9
INTRODUCTION.....	10
PHASES OF THE PROJECT .....	11
1. PREMISES.....	15
2. GENERAL ASPECTS .....	16
2.1. Sustainable Tourism concept as inspiration concept.....	16
2.2. Methodological referencies .....	16
3. PHASES OF ASTA PROJECT .....	19
3.1. The starting analysis of the destinations of Marcelli and Saranda.....	19
3.1.1. Environment state in the destinations of Marcelli and Saranda.....	21
3.1.2. The demonstrative project in the area of Marcelli .....	22
3.2. The evaluation of tourism carrying capacity .....	24
3.2.1. TCCA of Numana .....	27
3.2.1.1. Plans choice scenarios.....	27
3.2.1.2. Scenario of environmental improvement.....	29
3.2.1.3. Scenario of absence of seasons .....	31
3.2.1.4. Scenario of strong development.....	33
3.2.1.5. Confrontation of the scenarios .....	35
3.2.1.6. The wished scenario.....	40





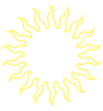
3.2.2.	TCCA of Saranda .....	42
3.2.2.1.	Tourism development .....	42
3.2.2.2.	Carrying Capacity of the shoreline regarding sea tourism .....	46
4.	A COMMON SUSTAINABLE POLICY FOR TOURISM DEVELOPMENT IN NUMANA AND SARANDA.....	48
4.1.	Premises .....	48
4.2.	A sustainable programme for Numana.....	50
4.3.	A sustainable programme for Saranda.....	55
5.	CONCLUSIONS.....	61











## PRESENTATION

### Marco Amagliani, Regional Councillor for Environment of Marche Region

*During the last few years Regional policies have started to consider, among difficulties and contradictions, the natural patrimony of our territory a fundamental element of “Marche System” and its development. In the same time consciousness has arise to consider the over-regional dimension of the environmental field and the consequent necessity to experiment new forms of international cooperation in this field.*

*A Regional policy that wants to face, even out of its borders, environmental matters, that wants to compare the experiences of different countries. This because otherwise the efforts carried out in our territories could result as inadequate and the prospective that arise is, as efficiently predicted by Calvino, of the city of Leonia, one of the “invisible cities”, to be razed and erased by the garbage heap of the neighbours.*

*The content of the different cooperation projects elaborated in the environment field refer to the general principles fixed by the European Union from the different sectors, to the intervention areas indicated in the VI Action Programme for Environment, to the objectives and the operative guidelines that are indicated.*

*The forwarded initiatives can be framed firstly in a Regional Cooperation policy aimed to structure and develop, through proximity actions addressed to the Balcans, the identity of the Adriatic-Ionic region and to prevent, in its projection toward the basins of the nord and the south, in other words with the new reality that has been shaped in the Baltic and already interact with its Russian proximity and project itself toward the Black Sea, the risks of isolation and marginalization of our territories. The elaborated propositions have been shaped on the specific knowledge of the other realities accrued along these years and on the needs underlined in order to guarantee the efficiency of the cooperation actions.*

*The Operative Programme INTERREG IIIA Italy-Eastern Adriatic Countries has experimented new forms of cooperation in the area of the countries of South East Europe, in order to contribute to the creation of a Adriatic “Euro-Region”, conceived as a homogeneous land and sea space. In compliance with the above objectives, the project ASTA – Azioni per la Sostenibilità del Turismo nell’Adriatico (Actions for a sustainable tourism in the Adriatic) has contributed to the definition of a common strategy for a sustainable tourism development in the interested coastal areas, comparing two realities subjected to high tourism pressure in two different contexts: Italy (Marcelli, Municipality of Numana) and Albania (Saranda, Region of Valona).*

*Projects like this one represent part of the mosaic of the interventions of Marche Region that will even rise in the next future, firmly convinced that, in this dimension only a development strategy can be realized guarantying the respect and the defence of environment.*





## INTRODUCTION

### Isarema Cioni - Marche Region - Department of Environment and Landscape: environment safeguard, sustainability and cooperation unit

#### The origin of the project

*Tourism represent today, for a Region like Marche, a very important resource for the territory, confirming itself as one of the economic activities with more grown potential.*

*Strong are however the risks of an uncontrolled use of the territory, aimed at gain without taking into consideration the necessity to preserve the integrity of environmental patrimony that has to be maintained.*

*Tourism sector produce many environmental problems, due to the management of tourism flows and the necessity to create adequate infrastructures to support it.*

*In tourism sector, where the preservation of environmental integrity is crucial, the necessity to pursue sustainability has to be a top priority, not only from an environmental point of view, but also for socio-economic development. A right planning and designing can guarantee that the possible environmental problems can be highlighted, putting together the necessary premises for a future development of sustainable tourism, in order to ensure the evolution of economic activity maintaining a high attention to the connected environmental problems.*

*These are the objectives of ASTA project – Actions for tourism sustainability in the Adriatic Area, co-financed within the Programme INTERREG IIIA – Adriatic Trans-border.*

*The project, coordinated by Marche Region, involve the Region of Valona and the Municipality of Saranda (Albania), the PAPIRAC of Split (Croatia) and the Local Tourism System of “Riviera del Conero” (Municipality of Numana).*

#### Description and objectives of the project

##### Project leader:

*Marche Region - Environment safeguard, sustainability and cooperation unit (the proposer is the office charged of pursuing sustainability through environmental integration in the other sector policies: the Regional Environmental Authority of Marche Region. From November 2005 the management of the project has been transferred to the Environment safeguard, sustainability and cooperation unit always in cooperation with the tourism department).*

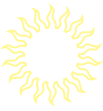
##### Partner:

- Region of Valona (Albania)
- PAPIRAC (Priority Action Programme – Regional Activity Centre), Split (Croatia)

##### Cooperate within the project

- Marche Region – Department of tourism and commerce, promotion and internationalization;
- SVIM – Sviluppo Marche SpA





**Total cost of the project:** € 279.630,08

**Length of the project:** 2 years

**End of the project:** December 2006

The global objective of ASTA project is pursuing an improvement of sustainability in tourism sector through the definition of a shared and unique strategic document for a sustainable tourism development in the involved coastal areas. It is also the experimentation of their practical application in the Italian area. ASTA represent a first step toward an adequate conscience of environmental problems connected with tourism on a scale that is proportionate to the problem and involving all the interested administrative levels.

More in details the determination of tourism carrying capacity (TCCA – Tourism Carrying Capacity Assessment) of an area dedicated to tourism is an indispensable step to define a concrete sustainable policy. The mayor impacts, sometimes irreversible, arise when this line is trespassed. Tourism flows, with a non planned use of the territory and a high level of edification, can generate high environmental impact that can compromise the use of the tourism place.

The promotion of strategies and concrete interventions aimed at the reduction of tourism impacts, in one or more environmental areas, allow to reach a higher sustainability both from the environmental and socio-economic point of view.

In a tourism area of such dimension, the management of the territory and the environment is the result of policies and law directions of more than one public subject, that has to be add to initiatives of many private subjects (Tourism local operators) and to the response of the users of the services (tourists and residents). In this context the adoption of an Environmental Management System as EMAS (one of the instruments at the disposal of the productive sectors for the reduction of environmental impact) needs a long iter, too much complex to carry out if not supported by an adequate knowledge of environmental criticalities and a strong and shared politic will: for these reason EMAS regulation set has been used here as a methodological basis.

Aiming at experimenting trans-border policies of sustainability in the tourism field, the project pursue in a joined and coordinated way the following objectives:

- Promotion of sustainable tourism;
- Reinforcement of institutional relationship with East Adriatic Countries;
- Acquisition of methodologies of environmental analysis integrated with socio-economic and politic-demographic evaluations to highlight critic situations of tourism sector (Tourism Carrying Capacity Assessment);
- Diffusion of knowledge of the Environmental Management System EMAS, also outside the borders of the EU;
- Promotion of the trans-border coordination in the analysis and management of environmental problems connected with tourism activities;
- Elaboration of environmental policies and programmes in the tourism sector in two tourism districts;
- Elaboration of a common strategy for the development of sustainable tourism (throughout the confrontation of the analysis results and programmes of the two areas).

## **Project Phases**

Marche Region, that in the implementation of the activities is supported by SVIM – Sviluppo Marche, and the Region of Valona, have identified areas with a strong vocation for tourism, with problems of environmental impact of tourism flows present and potential, where





to conduct the initial analysis, integrated with socio-economic and politic-demographic considerations to reach an estimation of the tourism carrying capacities.

On these basis an environmental policy has been elaborated, containing defined objectives of sustainability for the analyzed areas. This policy has been transformed in concrete target and measures, and actions to be adopted and promoted, in order to define an Environmental Programme in each area. Confronting the results of the analysis and the environmental programmes of both areas a definition of a common strategy for a sustainable tourism development has been defined.

The integration of the EMAS methodologies registration to promote the sustainability in the tourism sector and the sustainability indicators of this sector has been guaranteed by the Regional Activity Centre (RAC) that has elaborated a standardized methodology of calculation of the tourism carrying capacity.

The programming documents has been finalized to create a shared programme of common actions, basis to plan the following infrastructure interventions. Aimed at this, as a pilot case for reduction of environmental impacts of tourism, based on what said in the initial environmental analysis (VI "energy saving and/or use of renewable energy fonts"), the Local Tourism System "Riviera del Conero" has realized a photovoltaic system for enlightening Piazza Miramare in Marcelli di Numana, co-financed within ASTA project.

Following are summarized the phases of the project:

- 1 Selection, by Marche Region and the Region of Valona, of two areas characterized by critic environmental conditions connected with tourism flows:
  - Area of Saranda in the Region of Valona;
  - Area of Marcelli, Municipality of Numana in Marche Region (where has also been realized the infrastructural intervention as a pilot case for the reduction of tourism impact)
- 2 Environmental analysis integrated by a socio-economic analysis in the defined areas;
- 3 Estimation of the tourism carrying capacity in the two selected areas;
- 4 Realization of a training session related with the methodology of the Tourism Carrying Capacity evaluation (Ancona 16th, 17th and 18th November 2005);
- 5 Realization of a training session related to the EMAS system of Environmental Management( Ancona 2nd of April 2006);
- 6 Elaboration of an environmental policy for the two areas: definition of the sustainability objectives;
- 7 Definition of the complete targets, measures and actions by translating the objectives: environmental programme for each area;
- 8 Confrontation of the analysis results and the environmental programmes in the two areas for the elaboration of a unique document, as a strategy for tourism sustainable development in the coastal areas;

Diffusion during the whole project duration: Kick-off meeting, Ancona 10th and 11th of March 2005; Intermediate meeting, Numana, 12 December 2005; Final meeting, Ancona 25th of October 2006; realization of dedicated web pages in the website <http://www.ambiente.regione.marche.it/sito/>, where it is possible to consult and download technical documents related to the project in the section dedicated to the Environment safeguard, sustainability and cooperation unit.

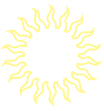






Photo 1 - Cape Conero





## I. PREMISES

The present document is a reassuming of the analytical and evaluation works that have followed the phases of ASTA project that involve the Local Tourism System “Riviera del Conero” and Valona Region (Albania), in the experimentation of the integration of the EMAS procedures with the Tourism Carrying Capacity Assessment formulated by the Environmental Programme of the United Nations. The specific areas interested by the projects are the area of Marcelli (Numana) for the Local Tourism System “Riviera del Conero”<sup>1</sup> and the area of Saranda for the Region of Valona.

One of the aspects of the project we want to underline is the great interest in creating and sustaining a relations network among all the involved subjects: public bodies, associations as well as single local economic actors. All the phases of the project have seen the development of useful meetings in order to collect and exchange information, but more than this, necessary to reach shared evaluations on the initial conditions, the priority problems, objectives to pursue and consequent actions to implement. Contacts have been particularly intense with the Municipality of Numana, that already had several organized data due to the experience of Agenda 21 and to the EMAS certification, but frequent and useful have also been the meetings with the Albanian institutions.

During the first part of the project (September 2005) a first visit has been done in Saranda area, repeated during the last phase of implementation (September 2006). But several times during the project activities representatives of the Region of Valona, of the Municipality of Saranda as well as of the professional categories associations, have participated at the events organized in Marche Region. Special thanks have to be done to the geologist Luca Amico and to engineer Vladimir Haxhi for their cooperation and for the material that they have given.



Photo 2 - Gulf of Saranda

*1) Local Tourism Systems (STL), recognized by tourism frame law n. 135/2001, are new tourism organizations of the territory entitled to design and shape projects within improvement and development of policies of integrated tourism offer. Subjects that are into STL “Riviera del Conero” are: the municipalities of Agugliano, Ancona, Camerano, Casterlfidardo, Filottrano, Numana, Offagna, Osino, Polverigi and Sirolo, the association of hotel owners of Ancona of Confcommercio; Trade Unions of commerce tourism and services SME’s, Province of Ancona, hotel owners association Riviera del Conero, Tourism operators Association of Riviera del Conero, Real Estate agents association of Riviera del Conero that also represent the Association of traders of Numana and the life-guard Association of Riviera del Conero, consortium of Parco del Conero, Chamber of Commerce of Ancona.*





## 2. GENERAL ASPECTS

### 2.1 Sustainable Tourism concept as inspiration concept

Basic principles of sustainable development and sustainable management practices are applicable to any form of tourism, any kind of destination, included mass ones, and in all kind of tourism segment. These principles involve environmental, economic and socio-cultural aspects of tourism development: to guarantee long term sustainability it is necessary to reach a balance among the different components. Sustainable tourism is a tourism that:

- 1) optimize the use of environment resources;
- 2) respect local communities socio-cultural authenticity;
- 3) offer socio-economic advantages to all the involved parts.

### 2.2 Methodological references

Premised that territory represent the space within all human activities are taking place and react negatively or positive-ly to them, carrying capacity of a territory evaluate population level and development that can be sustained without exceeding limit indicators, in terms of social, cultural, environmental and economical impacts, defined on the basis of local, national and international standards. Following the definition of the World Tourism Organization, carrying capacity of a tourism destination is composed by the maximum number of people that visit, during the same period of time, a place, without compromising its environmental, physic, economic and socio-cultural characteristics and without reducing tourist satisfaction. Starting from such definition, UNEP (1997) has developed methodological guidelines to evaluate carrying capacity, finalized at orienting and defining tourism development policies, particularly in the coastal areas that, as it is well know, are subject to relevant pressures by their landscape and environmental values. Carrying Capacity Assessment (CCA) methodology has been formulated by the Environmental Program of the United Nations, particularly by its Centre for Regional Activities of the Action Plan for Mediterranean<sup>2</sup>. Its use for the planning of tourism in the coastal areas is suggested by several UNEP directives. The first experimentations of the methodology have interested mainly areas where tourism development was still limited, with the objective of confronting potentiality if different alternatives more or less intensives: without doubt these experiences can be perfectly adapted to the situation of the tourism area of Saranda. Subsequently more experiences have been made in areas characterized by and intense tourism development and in areas of mature tourism<sup>3</sup>.

2) PAPI/RAC Centre of Split is a partner of ASTA project

3) We can remind the experience of Rimini Province, developed by Ambiente Italia in accordance with UNEP, that has evaluate possible strategies of development, social and economic effects and the consequences that such strategies could have in term of environmental impact.







The methodology propose the analysis of the components of local tourism development and its fallen back, as well as the main interactions with the others socio-economic activities: territorial, environmental and urban planning characteristics of the interested areas, tourism policies and preferences expressed by local population, by tourists and by economic operators. The analysis methodology developed by UNEP is wide flexible because of the complexity of the definition of the borders of carrying capacity in tourism field. Complex because it include a wide amount of environmental and socio-economic factors that derive from the inter relation between the characteristics of the destination and tourism needs. Carrying capacity is mainly composed by the results of the following components:

- 1) Environmental capacity;
- 2) Social or psychological capacity, that includes also the perception of inhabitants and tourists;
- 3) Physic or infrastructural capacity;
- 4) Management capacity that deals with the organization and politic capacity of the destination in the field of tourism management.

In the study of tourism carrying capacity different factors dependent mainly by the local conditions, are analyzed. The factors that can determinate carrying capacity of the territory include: the total area that can be developed, limited amount of water resources, water coastal capacity to absorb polluting phenomena, the areas ecologically sensible and the quality of coastal landscape. The complexity of the study is underlined by the difficulty of understanding of two conditions of the context: to understand what for a community is “not acceptable” and what the community really wants for its future development. These required a continuous involvement of local population in a bottom-up approach, with an active participation in all the phases of the development tourism planning<sup>4</sup>. A second thing is that certain limit factors are “fix” and others are “variable”. “Fix” factors refer to the carrying capacity of natural systems, expressed as ecological capacity. They cannot be manipulated by human activities and, once defined, these limits must be observed with attention and never trespassed. “Variable” factors refer mainly to the infrastructure system: policies and following decisions can have an influence on these factors with interventions, for example, on the number of inhabitants or on the data that deifne an acceptable quality. For sure territorial and environmental carrying capacity can be raised through two main lines of actions:

- capacity of several factors can be extended, by importing water or by building a plant for the treatment of used water for example;
- the effect that each person has on these factors of interest can be reduced by changing the way of life with behaviour more eco-compatible for example, or through the raising of environmental technologies.

It is also necessary to underline that impacts on the environment do not depend only by the level of total population (inhabitants and tourists), but also by the level of “concentration” of such population (presence in a reduced period like during tourism high season) and by the mitigation of the impacts thanks to environmental technology.

4) Answers to these questions, like which are the levels of unacceptability and of expectation, could come even by a progressive adoption of European Environment Standards and by the enlargement process of European Union.





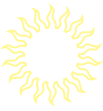
The concept of carrying capacity is very important, because it shows and verify justified limits, encouraging an open discussion. The single data considered, like the maximum number of inhabitants and/or tourists that can be accepted, or the number of beds, should be analyzed with care. In this way it is possible to create data that can be confronted with different possible scenarios of tourism development to share with the stakeholders, because it is not possible to avoid the needs of the political, economical and social powers that are present in the interested area. From different tourism development scenarios that can be think, come the estimations about consequences on the environment (modification of pressure, state and impact), on the socio-economic context (occupation and wealth). Verified the possibilities and the will to pursue a scenario, a tourism development policy that can indicate tourism offer in terms of quantity and quality, we can elaborate an environmental programme for the needed and possible development policy .

In conclusion we can underline that, while many applications of tourism carrying capacity have been based on the acceptable limit of the rate inhabitants/tourists, more recent developments have recognized that the main objective is to control, not this rate, but their effect on specific environmental or interest's resources factors. Tourism carrying capacity as a management instrument is by itself a synthetic indicator, due to the inclusion of many elements and factors that have an influence on territory evolution.



*Photo 3 - The shoreline of Marcelli. Behind there are the town of Numana and Cape Conero.*





### 3. PHASES OF ASTA PROJECT

#### 3.1 The starting analysis of the destinations of Marcelli and Saranda.

The delimitation of the areas of research has represented a first result of the evaluations of the geographical characteristics of the areas of Marcelli and Saranda, related with the way tourism activities are carried out and the ones more connected. It has been immediately evident that the analysis cannot be limited only to the tourism areas, because the phenomena taken under exam are developed, with the consequently environmental and socio-economic consequences, on larger fields. Normally the area of research has coincide with the municipality territory, but has been often modified to meet special needs and/or due to the data and information disposition<sup>5</sup>.

As foresees in any methodology of evaluation a set of indicators has been set up - that has followed also during the other phases of the project - in order to allow the representation the effects of tourism economy - system performance - both under the socio-economic and environmental profile<sup>6</sup>. It is essential that the choose of the indicators and of the territorial area of reference are widely shared. Such condition is one of the characteristic elements of UNEP methodology for the evaluation of carrying capacity that foresees the involvement of the different stakeholders during the phases of the process, from the analysis to the development planning<sup>7</sup>. Sharing the indicator system is essential because the evaluation of the carrying capacity is shaped - in analogy with environmental management systems of EMAS procedure - also as evaluation system of the future assessment and performance of the tourism system.

The starting analysis has been structured around two main thematic areas: the socio-economic area and the environmental area.

5) It is necessary to premise, by doing this kind of studies, that we have problems regarding the disposition of environment data and the capability of the existing official data to be representative. In fact, it is a diffused opinion that they are not representative of the reality, but underestimated. Being this a structural problem of statistic system, in our surveying are also present the approximated estimations of tourism presence, based on estimation pro capite present in literature referring to waste production and water use, in order to allow a confrontation among tourism presences estimated and official data.

6) Indicators set has been defined by taking in account national and international experiences (Bibbione, Lignano, Province of Rimini) already done, with a particular attention to ones of the Priority Action Plan(PAP) that have involved tourism areas in a different state of development.

7) In the EMAS procedure we do not find among the conditions the one of the "involvement", but it is strong and central the condition of the quality of information that has to be given to the interested subjects.





*Photo 4 - The shoreline of Saranda*

### **Socio-economic area**

The study has proposed indicators suitable for the characterization of the tourism system, both in terms of description of the phenomena (tourism demand and offer, no effect of season on the activities) and in terms more related with the economic field (wealth and occupation produced). For a more complete understanding of the socio-economic reality data and information regarding tourism sector have been read in the general socio-economic and political-demographic frame of the studied territories. A primary interest study for the definition of the following phases of the study - particularly for the definition of the policy and the territory programme and for the construction of development scenarios - has been the one regarding the state of territorial planning (coordination plans and/or sector plans) and of the municipality urban instruments. It is out of doubt the importance of the made urban choices, that are an obvious expression of a certain model of tourism development and that can represent an element of resistance to pursue modification toward a more environmental sustainability.

### **Environmental area**

With the environmental analysis the reference frame is made. Reference frame where the tourism activities are located defining pressures that modified the state of the environment. The environment themes interested regard:

- 1) changing of climate (CO<sub>2</sub> emission);
- 2) air quality (dust, troposphere ozone and oxidants);
- 3) water quality (sea and land water);
- 4) natural resources use (water cycles, energy use);
- 5) natural environment, territory and biodiversity;
- 6) waste production and management;
- 7) urban environment quality (traffic, noise, visual impact).





### 3.1.1 Environment state in the destinations of Marcelli and Saranda

The disposition of the data collected by Municipality administration of Numana for the definition of the starting environmental analysis - aimed at obtaining EMAS certification of the organization - has determined the possibility of disposing, in short time, of a knowledge frame almost complete, useful for pointing out environment themes and problems within the study area. More in detail, it has been retained useful to analyze the entire territory of the Municipality of Numana, due to the nature of the faced problems that has required not to limit ourselves only on the tourism area of Marcelli. It has been seen as evident that the examined phenomena develop themselves, with their environmental and socio-economic consequences, in a larger area. The interpretation of the data and the information has highlighted a generally acceptable condition of the main environmental parameters - in certain cases even good - responding to the actual standards foreseen by the specific sector regulation. It is also evident that the maintenance of the actual quality standards has (and will have) high costs for the community (water depuration, waste management, etc...) and that a larger augmentation of the pressure will need an exponential raise. In certain cases, like air quality, sea bathing waters, rivers, the problems have larger scale, involving subjects and activities that are on a larger area, out of the control of the subject (community, organization, economic operator, etc...) that endure the consequences. In other sectors, like traffic and landscape, we have efficient control tools, but sometimes it seems difficult to share and pursue balanced solutions between the need of a generic growth and the need of natural, cultural resources preservation as well as public health matters.

For the area of Saranda the level of deepening and the analysis criteria of the study in its several parts are diversified by the disposition and the reliability of the data, as well as the disposition of histories series. An important source of information has been the conclusive document of the study made by PAP-RAC on the region of Saranda (2004). The estimation of the pollution and of the water resources, for example, has been made in accord with the indications of the cited document, also considering the contribution of the municipality of Aliko. This because the wasted water, like the one of Saranda, meet together in the Cuka channel and then in Saranda Bay, contributing to the total pollution and defining the actual critical state of sea water. To estimate the production of solid urban waste, that represent the more worrying emergency, data and information given by the Direction for planning and Tourism of the Region of Saranda has been used. Direction was already operating on a specific project on the same topic. The lack of data has been confirmed also during the socio-economic research. Demographic data have been deduced by a selection of the more reliable sources, due to the variety of disposable data and the large difference between census data and the ones given by the Municipality of Saranda. Tourism flow, that have not official data, has been deduced by the information collected through the local chamber of commerce during the travel to Saranda in 2005. Data regarding the movement of people of the port have been collected from the official documents of Port Authority.





### 3.1.2. The demonstrative project in the area of Marcelli

One of the aspects of major interest of ASTA project is the realization of a public infrastructure that can efficiently raise the environmental sustainability of the tourism area of Marcelli. The section of the project related to this activity has been immediately started due to the short time of implementation to point out and evaluate the intervention and to realize it. This has been possible, as already said, thanks to the disposable data of the environmental analysis for the EMAS certification that has allowed the construction in a very short time, of a knowledge framework, enough complete to point out themes and critical environmental aspects in the studied area. Aspects necessary to individuate the infrastructural intervention. Evaluated the main environmental issues, disposable of innovative technologies has been verified in order to reach the goal of the project. More than this, we have evaluated the possibility to make an intervention by modules, in order to realize finished interventions with the disposable financial resources. Also the transfer of the used technology has been considered as an important characteristic, this in order to use the intervention as an example for similar works - exchanges with tourism reality in Saranda are necessary for the project - or other works with the same technology. A last aspect, but very important for tourism reality within we have operated, is the visibility of the intervention, its capacity to be perceived by the entire population (inhabitants and tourists) and to be evaluated within more complex projects of urban qualification.

The above evaluations have raised the interest for an intervention regarding energy save. Right now it is a sector where we don't have sufficient data, but for the field of public illumination the Public Administration will have a system to monitor the consumption. On the market are disposable innovative technologies in rapid progress (and with decreased prizes) like photovoltaic cells that allow to operate the integration of such technology in architectural projects. Right in the area of Marcelli, the municipality had already a project for Piazza Miramare, project that could integrate the above technologies. A last but not least aspect is the visibility of the intervention, its capacity to be perceived by the users (inhabitants and tourists) and to be valued into more complex project of urban qualification: the aim is to raise population sensibility toward the objectives of ASTA project. In this sense the central position of Miramare Square along the coastal area of Marcelli respond to these characteristics.

The solar system realized consist in photovoltaic modules for a nominal power of 5.775 watts. Modules have been installed on structures of metal and wood in a total surface of 42 mq designed in order to have a minor visual impact. The illumination system is composed by six lamppost and ten light groups into the floor composed by low consumption elements. It is estimated that the installed system will allow to save more or less 3.3 tons of CO<sub>2</sub> per year.







*Photo 5 - The mouth of Musone river. On the background Cape Conero*



*Photo 6 - Vue of the mouth of the channel and the laguna of Butrinth*





### 3.2 The evaluation of tourism carrying capacity

The methodology developed by UNEP (Tourism Carrying Capacity Assessment), as already said, is widely flexible and allow to focus different aspects of the interactions between tourism activities and territory in the different context where it can be used. The aim in this phase of the project has not be to produce reference “numbers” that can represent a limit over which is not possible to define a tourism development in Numana and Saranda destinations. In fact particularities and differences of these realities require a more articulate approach, aimed to highlight the interactions between the different entities that compose them. Tourism presences could continue to rise if followed by actions and strategies aimed to a reduction of pressure on environment and local communities. On the contrary, even a reduction of the number of tourists could not determinate a reversed effect if not followed by interventions to renovate and raise infrastructural systems and the use of natural and urban areas. Through this study we wanted to highlight the potentialities and the problems of the territory related to tourism phenomena, in order to insure its economic value, according with environmental and social aspects that, if not taken care of, could represent limitative factors.

The description of the method, that foresees the construction of a series of references scenarios, described ahead, has find a concrete application in the situation of Numana. The specific problems and the lack of data and information have required, for the destination of Saranda, a redefinition of the methodology and the elaboration. The could be scenarios for Numana case are four, all of them projected in the next ten years:

- **scenario 1**, as realization of the Regulation Plan;
- **scenario 2**, environmental improvement through interventions in the accommodation sector;
- **scenario 3**, grown of tourism presence during low season;
- **scenario 4**, grown of tourism offer.

Hypothesis and considerations from where the different scenarios are developed are described and discussed in their relative paragraphs.

With the initial analysis a set of indicators has been defined for the lecture of socio-economic and environmental conditions<sup>8</sup>. From this set have been taken the more suitable ones to illustrate most significant themes and aspects in order to confront the different scenarios representing the instruments to read the differences between a scenario and another<sup>9</sup>, they have been articulated in:

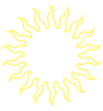
- **guide parameters;**
- **socio-economic parameters;**
- **environmental parameters..**

8) Sharing system indicators is one of the characteristic elements of UNEP methodology. The different stakeholders must be involved during the different phases of the process (from the analysis to the planning of the development hypothesis) and we can recall several meetings and seminars open to citizen and to operators, made during ASTA project.

9) Indicators set will couple, after the end of ASTA project, an activity of monitoring that could represent le characters and effects of tourism economy (system performances) both under social and economic point of view and under environment point of view, aimed at a permanent improvement.







**Guide parameters** include data regarding:

- residents;
- tourism flows;
- receptive structures (beds).

Residents, tourism presences (intended as number of nights of the tourists in receptive structures)<sup>10</sup> and number of beds represent guide parameters. From their variations depends variations of the other indicators and consequently the differences between a scenario and another. Data refer to the, tourism season and month of August.

**Socio-economic parameters** include data regarding:

- tourism intensity;
- tourism density;
- economic data of the sector (plus value, jobs, etc...).

It is necessary to precise that in certain cases it was not possible to evaluate some socio-economic parameters because there are not specific references studies. For that reason their variation is only hypothetical and indicated with symbols. Regarding the social aspects, the parameters have been chosen in order to describe in the best way the connections between tourism presence and local population, highlighting the situations that could cause stress or non satisfaction. The tourism intensity indicate the rate between tourists and residents during the month of August, while tourism density, during the same month, calculate the average area of beach for each tourist.

**Environmental parameters** include data regarding:

- water use;
- waste production;
- energy;
- soil use.

Even regarding this group of parameters it has not been possible to collect all indicators data, replaced by estimations expressed by symbols, also useful to define a tendency line.

10) Definition given by ISTAT

11) The existence of problems regarding the availability of data and/or the representativeness of official data regarding environmental aspects and tourism phenomena has been underlined in the study of the starting analysis. It is a shared opinion, for example, that many data regarding tourism phenomena has been underestimated and, being a structural problem of the statistic system, in this document it is possible to find estimations elaborated on the base of data present in writings.

12) The choice comes, of course, during the month of August, the period of maximum affluence of tourism.





*Photo 7 - The shoreline between Marcelli and Numana*



*Photo 8 - The demonstrative project of Piazza Miramare on the seafront of Marcelli. The roofs of the telephone boots are made, as well as the ones of the other structures of the square, of photovoltaic modules.*





### 3.2.1. TCCA of Numana

#### 3.2.1.1 Plans choice scenarios

A first reference scenario, in order to evaluate the possible development policies in tourism due to the induced effects on socio-economic and environmental field, comes from the superposition of the foreseen of the Regulatory Plan in act and the way they are working, giving an idea of the results in qualitative and quantitative terms. From this the possible definition of an “inertial” scenario, that could be imagined valid for a duration of 10 years.

#### Guide parameters

As already said in the Methodological notes, tourism development scenarios are built starting from several entrance data defined as guide parameters. Those related to tourism sector refer to the two essential aspects to describe and define the evolution of tourism phenomena: tourism presences (request) and beds (offer).

One of the assumption of the inertial scenario is the development of the actual tourism offer following the prevision of the Regulatory Plan, which choices is to maintain the actual receptive structures. Considering the objectives of the Plan of the Conero Park, we aims at diversifying services (wellness and conferences) of the hotels and in order to increase the offer at creating new farm holidays. Based on these considerations and on the dimension of the expansion areas, it has been possible to estimate and to restart among the different receptive sectors the bed posts that could be potentially realized, as indicated in the following scheme:

sector	actual bedposts	foresee bedposts	total bedpost
hotels	2.205	0	2.205
apartments	4.628	210	4.838
non hotels	4.928	30	4.958
<b>total</b>	<b>11.761</b>	<b>240</b>	<b>12.001</b>

Table 1

The other essential guide parameter is represented by tourism presence. In the following chart is a report of the data of the last years that show a significant raise in tourism demand<sup>13</sup>. General perspectives of tourism development in the next decade, as well as the particular (rare) resources present on the Numana territory (environmental , landscapes, cultural, historical, etc...) allow to say that tourism demand will continue to raise even in the next decade. With a simple linear interpolation it is estimate that the number of annual presences will raise from 751.065 to 1.263.453.

13) In the last ten years grown of tourism demand in the Municipality of Numana are stable over the average rate of Marche Region.





*Graph 1 - Tourism demand projection in the Municipality of Numana (1994-2016).*

This tendency to arise find its limit in the tourism offer that, as already said, stay the same in the studied scenario (+2%). Distribution of presences during a year highlight the concentration of demand during the months of July and August, that represent limit situations. Based on disposable bed posts (hotel and extra hotel) the theory maximum during these two months is 729.182 (11.761 bed posts for 62 days). If we articulate the estimation of presences until 2016 during the year months (leaving non modified the actual distribution) tourism presences during July and August should increase to 808.656, highly more then the maximum capacity. For this reason it is necessary to find along the curve the point where it is reached the saturation of the tourism offer. In this sense it is reasonable to assume an occupation rate of receptive structures of 90% of their maximum theoretical capacity.

*Graph 2 - Tourism demand distribution simulation in the Municipality of Numana for 2009 between April and September.*





The data analysis comes to the year 2009, where estimated demand for the months of July and August is 668.081. In this way it is possible to estimate in 2009, with 1.043.817 annual presences, the maximum amount that can be reach by tourism demand in the municipality of Numana, considering the development policies of tourism offer foresees by the Regulatory Plan.

Many indicators contain comparison between tourism phenomena, estimated with different rules, and resident population. Calculating the theoretical capacity of resident population allowed by the Regulatory Plan an increase of 1.265 units can be calculated, a data that would raise the population to 4.868 inhabitants. This data is not so different from the estimation up to 2016 of resident population, made starting from the actual grown trend (as it can be seen below).

*Graph 3 - Resident population projection in the Municipality of Numana (1994-2016)*

In the following table are reported the guide parameters estimated for the construction of the inertial scenario.

<b>high season</b>	1.024.411
<b>low season</b>	19.406
<b>annual tourism presences</b>	<b>1.043.817</b>
<b>bed posts</b>	<b>12.001</b>
<b>residents</b>	<b>4.868</b>

*Table 2*

### **3.2.1.2 Scenario of environmental improvement**

A second scenario of tourism development to be taken under advice by stakeholders and decision makes has been build in analogy with the inertial scenario regarding the evolution of tourism demand and maintaining of the actual tourism offer, but putting together actions and policies aimed at enhancing the environmental state within the municipality of Numana.





These in order to satisfy the necessity to control and minimize the grown of (pressione) in the environment system that would raise with the grown of tourism presences. This scenario wants to demonstrate the effects of realization of environmental policies in tourism sector.

The foresee actions are aimed at:

- water use reduction into receptive structures;
- waste production reduction into receptive structures;
- improvement of water quality of Musone river.

Some policies and consequent actions, in this case and others, should also interest resident population and larger areas then the only municipality territory. It is obvious, for example, that an enhancement of water quality of Musone River, that as highlighted in the initial analysis cause the missing of a relevant part of Numana beach, can comes only because of realized interventions along all the river.

### Guide parameters

Guide parameters of this scenario are the same of the ones of the inertial one. For that reason the estimation of presences in 2016 take count of the saturation during July and August of the tourism offer, staying it (inalterata). The resident population is estimated in 4.125 units.

<b>high season</b>	1.024.411
<b>low season</b>	19.406
<b>annual tourism presences</b>	<b>1.043.817</b>
<b>bed posts</b>	<b>11.761</b>
<b>residents</b>	<b>4.125</b>

Table 3





### 3.2.1.3 Scenario of absence of seasons

A third scenario simulate the hypothesis of a development that wants to stimulate the absence of seasons of tourism and , consequently, a raise in the occupation of bed posts during low season. The actual (tasso) of occupation of receptive structures is quite low, while the characteristics of Numana territory, intending a larger area that include also several towns rich in historical and cultural resources only a few kilometres far from Numana (Osimo, Casterlfridardo, Loreto, Recanati), give the opportunity to think about a project for the absence of seasons. This needs to be supported by promotion actions and marketing aimed to improve a mix of cultural, cultural and oeno-gastronomical resources, joined by the pleasure to stay in a sea location. For sure the level of such a project cannot be the municipality, but must involve the entire Local Tourism System. This scenario, that as well as all the others refers to the year 2016, wants to demonstrate the effect on the tourism carrying capacity of a policy of increase in presences, also in absence of seasons, not followed by punctual interventions of improvement in the management of environmental resources in the structures themselves.

#### Guide Parameters

One of the requirements of this scenario of absence of seasons is the maintaining of the actual tourism offer , as reported in the following chart. The assumption of the absence of seasons should anyway interest, as a priority, the hotel sector that has low rates of occupation, and moreover, is actually mainly depending on seasons.

sector	bed posts
hotels	2.205
apartments	4.628
non hotels	4.928
<b>total</b>	<b>11.761</b>

Table 4

This scenario of absence of seasons, on the contrary, propose an increment of annual presences , that start from the actual 751.065 now to raise up to 899.542 (+19,8%), raise certainly sustainable by the actual tourism offer. The following chart shows the monthly raises of presences, in particular during the months of lower tourism presences, indicating the following rate of occupation of the disposable bed posts.

14) The current occupancy rate during tourism season (April-September) is 40,3% of the hotels and 33,9% of non hotels accommodations





month	presences	occupancy rate
January	4.135	=
February	7.023	4%
March	14.046	9%
April	52.925	13%
May	72.918	14%
June	116.817	=
July	222.194	=
August	300.301	=
September	88.114	=
October	12.641	6%
November	7.023	5%
December	1.405	1%
<b>total</b>	<b>899.542</b>	

Table 5

The following graph shows the presumptive distribution of tourism presences along the year that, if compared with the actual one, highlight the raise of the curve.

Graph 4 - Simulation of non seasonal distribution of tourism demand in the Municipality of Numana







In the following chart are reported the estimated guide parameters for the construction of the scenario without seasons for the year 2016.

<b>high season</b>	1.024.411
<b>low season</b>	46.263
<b>annual tourism presences</b>	<b>1.070.674</b>
<b>bed posts</b>	<b>11.761</b>
<b>residents</b>	<b>4.125</b>

Table 6

### 3.2.1.4 Scenario of strong development.

A last scenario is funded on a different presupposed than the precedents: the augmentation of tourism offer in order to respond to the tendency of increase of tourism demand. It is assumed that the increase of demand would not be accompanied by any policy, both not turned to the enhancement of environmental performances (like the scenario of environmental enhancement), nor to a different distribution on demand along the year (like the scenario without season). This scenario wants to show the pressure, both on the socio-economic tissue and on the environmental resources, of a tourism development not accompanied by policies able to control the effects and to prefigure necessary actions of respond.

#### Guide parameters

The following diagram indicate the linear interpolation line of tourism demand up to 2016, when we register a total demand of 1.263.453 people yearly.

Graph 5 - Tourism demand projection in the Municipality of Numana (1994-2016).





As already demonstrated (see scenario of Plan choices) without intervention on the side of the offer during the year, a saturation is reached that doesn't allow to satisfy the demand. During the months of July and August, we estimate a demand of 806.656 presences, with a capacity, with the actual receptive structures, of 729.182 presences. In order to overwhelm the needed 13.010 bed posts that, considering a maximum occupation not superior of 90%, raise up to 14.456 bed posts, with an augmentation of 2.695 more than the actual ones (+22,9%). In the table that follow are reported the guide parameters estimated for the construction of the scenario of strong development.

<b>high season</b>	853.269
<b>low season</b>	46.273
<b>annual tourism presences</b>	<b>1.263.453</b>
<b>presences july</b>	365.734
<b>presences August</b>	442.922
<b>total presences</b>	<b>808.656</b>
<b>bed posts</b>	<b>14.456</b>
<b>residents</b>	<b>4.125</b>

Table 7

15) Actual total bed posts are 11.761, so during the months of July and August (62 days) maximum capacity of hotels is 729.182.

16) A development of the hypothesis could estimate the effects of a policy more turned on an expansion of hotel structures or non hotel structures (camping, tourism villages, second houses, etc...) in environmental terms with a particular attention in terms of soil consume and mobility.





### 3.2.1.5 Confrontation of the scenarios

The scenario methodology has allowed to analyze the possible alternatives of tourism development of Numana territory. As seen, four possible scenarios have been analyzed based on merit considerations and in particular on the confrontation with the requests of the territory.

Scenario	Remarks
<i>Choices of plan</i>	This scenario imply modest improvements of the socio-economic sector, but a general worsening of the present situation in terms of environmental performances. Environmental policies already implemented by the Municipality seems not to impact in a significant way on the environment improvement of tourism sector. Inertial scenario prove the need of a reinforcement of environmental actions in this sector.
<i>Environmental improvement</i>	Environmental improvement scenario is a strong answer to the interventions necessary for the sustainability of the tourism sector. It needs an efficient and brave decision capacity. Results are immediate and indicate how much it is necessary to intervene on the improvement of the environmental performance in each single operative unit.
<i>Seasonal Adjustment</i>	In this scenario there is not an environmental improvement but a raise of the distribution of presences along the year that improve economic performances, allow a better planning of environmental actions, especially in waste management Accommodation facilities strong development
<i>Accommodation facilities strong development</i>	This scenario foresees a strong seasonal growth of presences and consequently growth of accommodation facilities offer. The effect is an immediate untenableness due to the raise of the tourism impact during high season.

Table 8





For a more detailed confrontation regarding the single indicators, have a look at the following abacus that report the data of the single scenarios.

As we can see from the abacus, scenario 1 (inertial) do not include improvement, but the worsening of some environmental indicators and the substantial invariability of the indicators related with water quality. Scenario 2 shows clear advantages in the environmental field. Only regarding some indicators like tourism intensity and pressure we don't see any substantial enhancement because hypothesis of inhabitants and tourism growth of inertial scenario has been maintained. Scenario 3, related to an augmentation of presences during high season with a consequently augmentation of the number of bed posts has a clear economic advantage, but a worsening of all environmental indicators. Scenario 4 related to a no season scenario contains clear socio-economic advantages due to an augmentation of total presence and to a better distribution during low season. Such condition as seen before, foresees clearly at the same time a modification of receptive offer that should guarantee adequate services for the low season with the opening of annexed services. The elimination of seasons not followed by an environmental policy will bring on the other side an augmentation of environmental charges creating potential risks to the territorial environmental management system. The most sustainable solution from the economic and environmental point of view should foresee the implementation of a season elimination policy followed by environmental management interventions on receptive structures. The point is to find the best synergy between scenario 2 and 3. Scenario 4 shows clearly how an augmentation of tourism during high season with an augmentation of bed posts, would have a significant worsening of environmental impact.





*Photo 9 - Le Due Sorelle, Portonovo, Ancona*





	STARTING SITUATION 2006		PLAN CHOICES		ENVIRON
<b>SOCIO-ECONOMIC SYSTEM</b>					
<b>tourism demand</b>					
DT1	high season presence	98,2	98,14		98,14
DT2	Italian tourism presence	90,86	87,15		87,15
DT3	no hotel structures employment	nd	nd		nd
<b>tourism offer</b>					
OT1	no hotel bed posts	81,3	81,6		81,3
OT2	low season bed posts	1	1,3		1
OT3	bed posts per category	91,2	91,2		91,2
<b>pressure on environment and residents</b>					
T1	intensity	2,78	2,51		2,96
T2	density	24,6	20,2		20,2
<b>ENVIRONMENT SYSTEM</b>					
<b>water use</b>					
A1	annual total	809.525	1.095.756		860.674
A2	pro capita per tourist	624,17	624,17		450
<b>waste production</b>					
A3	annual total	4.977.900	5.780.958		4.619.290
A4	tourism season	72,2	71,68		71,1
A5	differentiated waste collection	27,8	27,8		30
A6	pro capita per tourist	2,27	2,27		1,93
<b>renewable energy</b>					
A7	use of renewable fonts	0	0		+
<b>Water quality</b>					
A8	beaches coasts	79,7	79,7		+
A9a	trophic Index	3,7	3,7		3,7
A9b	trophic Index	4,4	4,4		4,4
<b>Natural areas disposable</b>					
A10	disposition pro capita	60,08	49,31		49,31

Table 9





SCENARIOS 2016			
MENTAL IMPROVEMENT	SEASONAL ADJUSTMENT	STRONG DEVELOPMENT	
	94,86		98,14
	80		87,15
	nd		+
	81,3		83,26
	3,8		1
	91,2		91,2
	2,43		3,58
	24,6		16,69
	937.900		1.158.812
	624,17		624,17
	5.758.838		5.758.838
	68,53		70,6
	27,8		27,8
	2,27		2,27
	0		0
	79,7		79,7
	3,7		3,7
	4,4		4,4
	60,08		40,74







### 3.2.1.6 The wished scenario.

At this point of our work the questions we have tried to answer are:

- 1) Is there at least one of the analyzed scenarios that could be considered environmentally sustainable?
- 2) Which are the favourable scenarios, taking into count the real possibilities to put together policies in order to favour the realization?
- 3) It is possible to imagine strategies in order to enhance tourism performances of the scenarios that could be really implemented?

The first question makes to emerge the key question of the tourism carrying capacity analysis: the carrying capacity of a territory depends on its resources or can be changed by augmenting with adequate infrastructures the equipment of the resources? Right now, values per capita of environmental indicators for the municipality of Numana are not particularly high if confronted with the data of other territorial realities. In some cases like the water use per capita we have data superior to the regional average. More than this, per capita data could be overestimated, if we consider the possible presence of non registered tourism population. In terms of “per capita environmental impact”, the tourism industry of Numana seems today, even with some improvement, quite sustainable. The worsening of the per capita impact assumed for almost all the environmental parameters, in all the scenarios, would be in line with the national and international tendencies and the sustainability level should not become worse in the future. To answer to the needs of more water use it should be enough to find new water resources, and for treating waste augmentation it would be enough to raise the capacity of collecting and treatment. On the other side, if we consider the potentiality of the territory, the actual situation seems already at the limit of environmental sustainability: it is the case for example of the demand of water during summer season that is much more than the water contained in the stratum and a supply is needed from closed other territories. This solution is of course not sustainable considering the indications of 2000/60 directive that foresees the need of planning a water balance within each stratum area, calculating before capacity of use and the disposable water. Another indicator that shows the already non sustainable state is the rate between built up areas and agricultural and natural areas. Artificial areas cover levels around 20% against a national average of 5%.

In conclusion it has been inevitable that, from the different points of views, all the scenarios foresee could have been considered sustainable or not and the research of a data of sustainability would have been an sterile academic attempt. More interesting has been to answer to the second question: which scenarios could be effectively realized, considering the social and productive context of the municipality of Numana. Each of the four scenarios is “realistic” in the sense that could become real if supported by adequate policies. But not all four has the same probability, considering the social and productive scenario of a reality that has chosen tourism not only as a productive activity but an element of cultural and territorial identity. In such context the scenario n.4, that foresees a raising of the receptive structures, would needs investments that would be perceived as popular at the beginning, having economic consequences in the short term, but would have a relevant environmental impact. Right now such scenario is less probable than the other three. The remaining three scenarios have a com-







parable probability of happening: the choice will depend of the capacities to put together the adequate policies, all, anyway, acceptable and sharable from a social point of view, even by the productive forces of the tourism sector. Among the three scenarios, the 2nd and the 3rd are for sure preferable for their capacity to put together socio-economic and environmental objectives.

Based on the discussion with the local administration and the territory stakeholders, it appears clearly the intention of the public body to look at those scenarios by activating policies that aim at encouraging the tourism development of the inner land and, in the same time, at re-qualifying of the tourism offer of the coast. Being the scenarios 2 and 3 aimed at improving environment and de-seasoning, it has been possible to define a unique scenario that can integrate the entries of the relative guide parameters, socio-economic and environmental. We have called such scenario “Conero Sostenibile 2016” because it can be considered a scenario probable and desirable at the same time. The parameters that characterize the scenario “Conero Sostenibile 2016” are summarized in the following table.

	STARTING SITUATION 2006	SOCIO-ECONOMIC SYSTEM 2016		
<b>SISTEMA SOCIO-ECONOMICO</b>				
<b>tourism demand</b>				
DT1 high season presences	98,25	94,86		
DT2 Italian tourism presence	90,86	80		
DT3 no hotel structures employment	nd	nd		
<b>tourism offer</b>				
OT1 no hotel bed posts	81,3	81,3		
OT2 low season bed posts	1	3,8		
OT3 bed posts per category	91,2	91,2		
<b>pressure on environment and residents</b>				
T1 intensity	2,78	2,43		
T2 density	24,6	24,6		
<b>ENVIRONMENT SYSTEM</b>				
<b>Water use</b>				
A1 annual total	809.525	860.674		
A2 pro capita per tourist	624,17	450		
<b>waste production</b>				
A3 annual total	4.977.900	4.619.290		
A4 tourism season	72,2	71,1		
A5 differentiated waste collection	27,8	30		
A6 pro capita per tourist	2,27	1,93		
<b>renewable energy</b>				
A7 use of renewable fonts	0	+		
<b>Water quality</b>				
A8 beaches coasts	79,7	+		
A9a Trophic Index	3,7	3,7		
A9b Trophic Index	4,4	4,4		
<b>Natural areas disposable</b>				
A10 Disposition pro capita	60,08	49,31		

Table 10





### **N.B.**

In this frame two negative situations are to be underlined, connected with the total annual use of water and with the availability of natural areas. The first indicator (A1), is influenced by the augmentation of tourism presences and of residents (together +22,3%), while the total annual use is estimate in a growth of +6,3%. For the second indicator (A10) the same comments can be applied.

### **3.2.2. The TCCA of Saranda**

The southern coast of Albania present some important competitive advantages from a tourism point of view: a moderate climate, an almost intact coastal environment and a dedicated agricultural production. In the same time, the local communities, along the Adriatic and Ionic coast, express strong expectations on tourism with the perspective of new jobs, higher salaries, new investments and development of infrastructures.

But tourism is also a large consumer of natural resources (especially in coastal areas) and an important producer of waste, solid and liquid that many times exceed the carrying capacity of the eco-system. Tourism activities have the habit of use the best resources of the a territory.

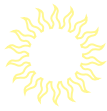
Many negative impacts of tourism have already been experimented along the Albanian coast: the consequent uncontrolled urbanization is at the origin of a worse water quality, a conversion of land dedicated to agriculture to tourism structures, a discharge of untreated water into the sea, a soil pollution due to the abandon of solid waste in uncontrolled areas. These aspects are by the way happening without a adequate development of infrastructures.

To define the limits of the a sustainable development of tourism carrying capacity and other activities connected along the Ionic coast require an integrated vision of regional development and specific decisions regarding the planning and the management of tourism.

#### **3.2.2. I. Tourism development**

Albanian tourism has not a level of development comparable with closed countries (Croatia, Italy and Greece), but has an unexplored potential. In fact, tourism market is mainly internal: due to the low offer, market is virtually already full, even if today we can start to see a tendency of Albanian tourism toward foreign countries (Turkey, Croatia and Montenegro). In the national landscape, the proximity of Saranda to Butrint and the Island of Corfù made this location as a reference, even if for foreign tourism it is on a daily basis (also due to the lack of competitive receptive structures). This kind of tourism is normally operated by Greek and in general foreign operators: the growth of foreign tourists (that has been multiplied by four during the last five years among environmental, historical-cultural and sea) underline the need of foreign operators and





at the same time the lack of coordinated marketing strategies and efficient local operators. From this point of view the development of the port of Corfù will not have any kind of consequences on tourism in Albania, being Corfù already a finale destination.

On the other hand the development of the port of Igoumenitsa could represent an efficient access from the south, contributing to break the traditional isolation of the area of Saranda.

The World Bank foresees for 2020 (Gunaratnam, 2004) 250.000 arrival, 30% of them from foreign countries: such a perspective would of course have positive economical consequences, but the pressure of the environmental components would become risky if not followed by adequate measures and actions (water treatment, waste cycle management).

Even with a non homogeneous development, tourism is already an important activity for the economy of the south of the Region of Valona: the numerical growth of hospitality structures is followed by a growth of complementary services like restaurants and shops. If places like Dhermi or Himara are in a phase of strong growth, Saranda represent the tourism centre more evolved in all Albania: from 1997 the growth of the receptive structures has been constant. Like already said, the proximity of Corfù represent a high potential for the development of tourism, mainly daily, funded on Butrint and the historical-cultural resources of Saranda area.

Connected with the evaluation of tourism flows, we conventionally assume as high season:

1. the months of July and August;
2. that all the registered population;
3. that 80% of the annual tourism is concentrate in such period and as low season:
  1. the period between September and June;
  2. that in the coastal area only the resident population is present;
  3. that 20% of annual tourism is concentrate in this period.

Regarding the composition and kind of tourism in the area of Saranda, like in all the Region of Valona, the following flows can be identified:

1. Tourist coming from Tirana or other cities like Scutari, Fier, Elbasan, Durrës and that stay for a period of ½ weeks and represent around 60% of the total tourism;
2. Daily tourists coming from the Region of Valona (around 30% of the total);
3. Foreign tourists from Kosovo and Macedonia (this sector is in constant growth and represent at the moment 7% of the total tourism presence);
4. Foreign tourists mainly European directed to Butrint or interested in the historical, cultural and environmental patrimony or in Albania for business (3%);
5. Also has to be added Albanian citizen living abroad but coming home for holidays.





The following estimations and evaluations are based on the consideration that the highest level of presence during the high season has been reached during August, when all the available rooms are occupied. During the month of July presence don't exceed 80%. During the rest of the year, the mild weather help to extend the tourism season: excursions and shorter stays allow the respective structures to extend their activity period. Regarding the second half of June and the first half of September the respective structures have work at 30-40% of their capacities. In detail, during the weekends of June and September, the request has raise up to 80%. This data is important. It represent a significant pre-requirement to extend a season of two months in one of four.

Regarding period of tourism stay, it is possible to find two categories:

1. The main one, characterized by an average stay of two weeks, a model of holidays very popular in Albania;
2. two smaller categories that stay four weeks or one week.

District/Regione	Hotels		Rooms Rental		Total 2001	
	min	max	min	max	min	max
<b>Saranda</b>	6.769	7.068	35.000	40.000	41.769	47.068
<b>Total Region of Valona</b>	10.136	10.743	83.000	91.000	93.136	101.743

*Table 11 - Estimation of total arrival in 2001.*

Tourism is mainly familiar, characterized by 70-80% of groups of more of 4 people, families and groups that share rooms to spend less. This kind of tourism doesn't produce a mathematic reciprocity between number of tourists and bedposts. The tourists present in Saranda hotels, according with table 3.2 that summarize characteristics of tourism offer, raise to 1700 units in 2001 and around 3000 in 2004 (August).

An estimation of the Chamber of Commerce indicate that the apartments for rent were around 500 in 2001 and around 1000 in 2004. It is possible to suppose that this reception capacity could raise presences during August of more then other 2000 units per day. In this way the total number of tourist every day in saranda during the high season can be estimate in 2004 in around 5000 units. Such estimation is confirmed by the study made by the PAP/RAC.

By making some more consideration regarding the estimation of the daily tourists, in Saranda during the months of July and August, the number of such tourists has reach 1000 units. Such tourists come mainly from the surrounding cities like Gjirokastra, Telepena, Delvina, plus some foreign tourists coming from Corfù. Another contribution, that can be estimate in 500 people per day come from daily school excursions or weekends vacations.

Based on the data communicated by the offices of local tourism it was estimate in 2001 that arrival would raise of at least 1% per year. Previsions for 2021 are:





Districts	2001 (average)	2006	2011	2016	2021
<b>Saranda</b>					
<b>(Saranda+Ksamil)</b>	44.000	46.200	48.510	50.936	53.482
<b>Total Region of Valona</b>	97.000	101.850	106.943	112.290	117.904

Table 12 - Tourism development prevision 2021 (Arrival).

Confronting the estimation of the arrival for 2004 (estimation based on the receptive capacity of Saranda) with the estimation of tourism development, it comes out as, in fact, today the growth has been higher than expected and anyway over dimension if compared with the actual demand. This aspect has determined a crisis situation, also perceived at the institutional level (like understood during the visit in Saranda) that has come out with a relevant under use of the receptive structures.

<b>Receptive structures</b>	44	89 (di cui circa 70 alberghi )
<b>Rooms</b>	468	832
<b>Bed posts</b>	971	2.223
<b>Rented apartments</b>	500	1.000
<b>Tourism agencies</b>	non disposable data	5

Table 13 - Tourism offer 2001-2004.



Table 14 - the articulation of tourism offer in Saranda. In comparison with 2001, the estimation is of a growth of receptive offer of 129%

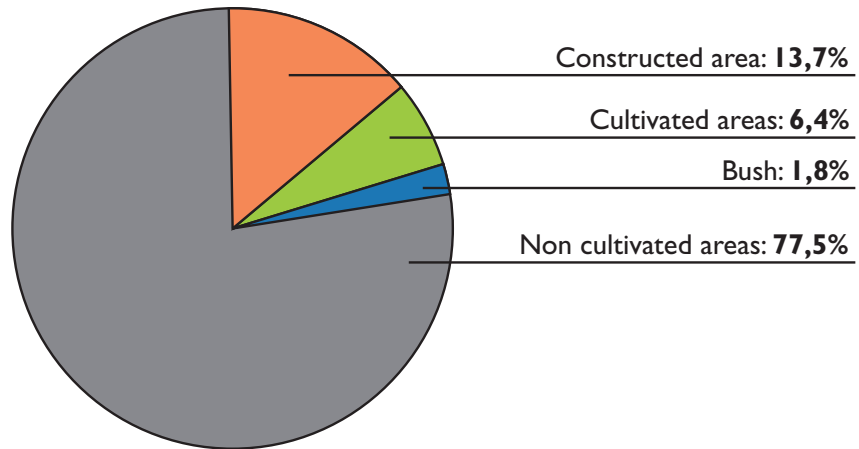




### 3.2.2.2. Carrying capacity of the coast toward sea tourism

The inaccessibility and the isolation due to the lack of infrastructures besides historical and political reasons have contributed to preserve intact the environment and the sea (except some urbanized areas). The coast of the area of Saranda is mainly not yet compromised, with many bays and vegetation that constitute together a landscape system of high interest and with a undeniable tourism potential.

These aspects have to be interpreted enlightened by the analysis of the soil use. 87% of the coast is not urbanized and its development is still at the beginning. For this reason the main part of the territory is not yet compromised. In detail, the recent hotel development has been concentrated along the coast between Saranda and the Cuka Channel.



Graph 6

The proximity of the Park of Butrint, situated south of the Province, represent an added value for the city of Saranda. In its position it could represent the conjunction between the island of Corfù, situated a few km from the coast, and the park. Apart Butrint, the bay of Kakome and the beach of Krokeza, localized respectively 17 km on the north of Saranda and 22 km on the south of Palermo port, represent, under the tourism attractiveness, the main attraction of the area. In the bay of Kakome, former military area, where there still is an abandoned port and are visible the ruins of the St. Mary's convent. The closed Krokeza, northern, is a spectacular beach and one of the most visited places by tourists. From the tourism point of view, Ksamil represent a high potential for the hotel development of the gulf, the islands, the small sandy beaches and the Mediterranean vegetation. Up north the landscape has been compromised by the illegal settlement of Limion and by two quarries.

The development of the road net is very poor and characterized by a bad maintenance, with the consequence of very long journeys. The state of the infrastructure represent a negative factor for the tourism use of the above described areas





(that are quite distant from the cities). Such areas represent the real potential patrimony for tourism development.

Due to this, the coastal area that is available directly for sea tourism is the one near Saranda and the coastal road that is developed for around 5 km. But such area has any quality or attractiveness.

An approximate estimation of the reception capacity of the coast is around 4000 tourists per day.

Based on the analysis and evaluations done, it seems clear that environmental carrying capacity is the crucial point for the territory of Saranda. Tourism development is “limited” by the environmental carrying capacity of Saranda territory, in part due to tourism, in part due to the urban development of the city. These results allow to declare the actual un-sustainability of tourism development in Saranda and the urgent necessity to put together actions and investments aimed at recreating a sustainable environmental capacity.

The main indications arised with the evaluation of the tourism carrying capacity are resumed in a table organized following a SWOT scheme and take into consideration all the aspects of the tourism development in Saranda intended in terms of point of force, weaknesses opportunities and risks.

Force Points	Weakness Points
<ul style="list-style-type: none"> <li>• New tourism destination</li> <li>• Beauty of natural landscape</li> <li>• Intact coast on the north side</li> <li>• High density of cultural resources</li> <li>• National park of Butrint</li> <li>• Temperate Clime</li> <li>• Saranda as an urban reference point with advanced services</li> <li>• Proximity with main European demand markets</li> <li>• Special tourism products</li> <li>• Proximity of Corfu and Igoumenitsa</li> </ul>	<ul style="list-style-type: none"> <li>• Urban development without control in Saranda and Ksamil</li> <li>• Compromised landscape by buildings planned or realized</li> <li>• Lack of an efficient public strategy on soil use planning</li> <li>• Lack of a clear vision of tourism as an economic sector</li> <li>• Access problems</li> <li>• Abandoned traditional villages in rural areas</li> <li>• Lack of training of tourism operators</li> <li>• Strong environmental impact in terms of waste</li> <li>• Large coastal parts with sea water pollution due to the non authorized water jettison</li> <li>• Frequent interruptions of electricity</li> <li>• Lack of environment education</li> <li>• Lack of direct naval connections with Italy</li> </ul>
Opportunities	Threats
<ul style="list-style-type: none"> <li>• Interested tour operator to focus on new destinations</li> <li>• Opening of new markets in central Europe</li> <li>• Development of eco-tourism in the hinterland</li> <li>• Better environmental management of coastal receptive structures through the introduction of environmental technologies (photovoltaic, etc...)</li> </ul>	<ul style="list-style-type: none"> <li>• High competition with other Mediterranean destinations</li> <li>• Lack of present interventions for the development of alternative tourism</li> <li>• Deterioration of environment impacts a total decline of destination</li> <li>• Hydro and geologic risks due to excessive building coastal construction</li> </ul>

**Table 15**

17) This small part of gravelly sandy shore surface is estimated in around 2,5 ha





## 4.A COMMON SUSTAINABLE POLICY OF TOURISM DEVELOPMENT IN NUMANA AND SARANDA

### 4.1. Premises

The sustainability of tourism development represents today one of the most difficult but also stimulating challenges, both for those that administrate tourism cities and for those that live there everyday. A challenge that must include an idea of participation in the decisions, a dialogue between citizen and administration and between tourism and territory system in order to be won. From this point of view, the political model for the sustainable development of tourism must offer to the local administrators an instrument to find, analyze and evaluate along time the critical points and the peculiarity of their own tourism destination.

One of the main objectives of ASTA project is to find a common sustainable policy for the tourism destination of Numana and Saranda. Considering the different characteristics of the two destinations, the working group has defined six different areas, finding in each of them common objectives directly derived by the Evaluation of the Tourism Carrying Capacity. Following are indicated the six areas and their relative objectives in the Common Sustainable Policy.

#### **BIODIVERSITY**

1. To preserve coastal, sea and land habitats
2. To promote and/or consolidate the activities of the parks and/or the protected sea areas
3. To improve ecological and environmental quality of rural territories

#### **WATER, SOIL AND WASTE**

1. To improve sea water quality
2. To preserve water resources
3. To prevent soil and water resources contamination
4. To reduce waste production

#### **ENERGY**

1. To limit the growth of energy use
2. To increase the use of renewable energies

#### **PAESAGGIO E CULTURA**

1. To preserve environmental and landscape qualities in the coastal territories
2. To improve landscape quality of the territory







3. To preserve and valorise cultural resources

### **LOCAL SOCIO-ECONOMIC DEVELOPMENT**

1. To inform and share information among local population to explain the economic benefits of tourism development
2. To boost a tourism development respectful of local communities identities
3. To minimize tourism pressure among local community

### **URBAN ENVIRONMENT**

1. To preserve, valorise and re-qualify architectural and historical urban patrimony
2. To improve and rationalize mobility system
3. To rehabilitate urban areas that has been characterized by an uncontrolled building development
4. To respect local architectural history and tradition in the planning of building development

For each single destination the Sustainability Policy has been declined in specific objectives and their related actions has been pointed out in order to realize the policies that take into consideration the related territorial characteristics and tourism development.





## 4.2. A sustainability program for Numana

<i>General and specific objectives</i>	<i>Actions</i>
<b>BIODIVERSITY</b>	
<b>1. To preserve coastal, land and sea habitat.</b>	
1.1 To develop active policies to preserve and improve the state of naturalistic interest areas.	1.1.1 To realize specific researches to increase scientific knowledge in the field of the admissibility of human transformation of naturalistic interest areas (confront with evaluation of incidence). 1.1.2 To realize interventions to create and/or reinforce ecological strips to preserve the areas of mayor naturalistic interest.
<b>2. To promote and/or consolidate parks and/or protected sea areas activities.</b>	
2.1 To reinforce the image and the identity of the Natural Park of Conero as an area of excellence in the context of Adriatic coasts.	2.1.1 To evaluate the realization of a protected sea area, by involving local community in the determination of specific purposes as well as management methods.
<b>3. To improve ecology and environment quality of agricultural areas as well as city surroundings.</b>	
3.1 To realize a local ecological network that can be connected and integrated in the Regional Ecological network.	3.1.1 To point out semi-natural areas and those that can be reconverted in natural areas that are on the agricultural and city surroundings territories, as well as to activate policies and interventions for their preservation and reinforcement 3.1.2 To realize a network of bicycle and foot paths to improve natural and semi-natural areas.
3.2 To diffuse and increase environment quality in the maintenance/transformation intervention of territories and towns.	3.2.1 To realize guidelines and good practices manuals aimed at preserving/improving biodiversity in construction and urban interventions.

Table 16





<i>General and specific objectives</i>	<i>Actions</i>
<b>WATER, SOIL AND WASTE</b>	
<b>1. To improve sea water quality</b>	
1.1 To improve water quality of Musone river.	1.1.1 To promote the implementation of the interventions fore-see in the Regional programmes for environment curing. 1.1.2 To point out and realize ri-naturalization interventions of the fluvial area of the Musone river.
<b>2. To preserve water resource.</b>	
2.1 To reduce pro capita water use.	2.1.1 To promote awakening campaigns for residents and tourists to reduce waste of water use. 2.1.2 To diffuse the use, in tourism structures as well as in residences, of tools to help reducing water use.
2.2 To recycle water resources.	2.2.1 To evaluate the possibility of re-use of deperated water for industrial or agricultural purposes
<b>3. To prevent soil and water tables contamination.</b>	
Not present	
<b>4. To reduce waste production.</b>	
4.1 To raise rates of recycling.	4.1.1 To promote awakening campaigns for the local population and for the production system as well as the services to improve buying management 4.1.2 To stimulate the realization of domestic systems for the composting of organic waste.

Table 17

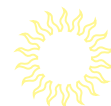




<i>General and specific objectives</i>	<i>Actions</i>
<b>ENERGY</b>	
<b>1. To control the raise of electricity demand</b>	
1.1 To reduce pro-capita use of electricity	1.1.1 To diffuse the use, in receptive structures and in resident houses of low energy absorption devices
1.2 To reduce pro-capita use of fossil combustibles	1.2.1 To ease non motorized mobility, especially for tourists 1.2.2 To boost the realization of bio-architecture interventions by rewarding them in town planning and building regulations
<b>2. To increase the use of renewable energy sources</b>	
2.1 To realize plants for renewable energy production	2.1.1 To incentive the realization of plants for the production of renewable energy (solar, thermal and photovoltaic) in tourism complexes 2.1.2 To realize plants for the production of renewable energy (solar, thermal and photovoltaic) in public structures

Table 18



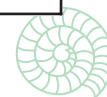


General and specific objectives	Actions
<b>LANDSCAPE AND CULTURE</b>	
<b>1. To preserve landscape and environmental quality of coastal territory.</b>	
1.1 To lighten and/or compensate with specific interventions the situation of degradation of landscape quality.	1.1.1 To elaborate, within the Regulatory Plan, specific landscape studies for coastal areas and to point out following interventions of improvement of landscape quality.
<b>2 To improve landscape quality of the territory.</b>	
2.1 To study solution for the quality of the territory landscape.	2.1.1 To promote new studies in order to define specific interventions also for the building of new balances of landscape and environment in the agricultural and town areas.
<b>3. To preserve and improve cultural resources.</b>	
3.1 To guarantee a raise of integration of tourism and cultural resources.	3.1.1 To define a plan of cultural activities in the territory of Numana to be diffused in reception structures during summer season by using adequate communication instruments.

Table 19

<b>LOCAL SOCIO-ECONOMIC DEVELOPMENT</b>	
<b>1. To involve local communities in the better economic effects of tourism development.</b>	
1.1 To integrate tourism development with local economic characteristics.	1.1.1 To promote the integration among tourism activities and the other economic activities like agriculture and fishery and also services field, with a particular attention of the commerce of typical local productions through the reinforcement of the role of the STL for integrated tourism development , able to put together in a network all the actors that cooperate for tourism development of the territory of Numana.
<b>2...</b>	
<b>3 To minimize tourism pressure on local communities.</b>	
3.1 To improve mobility system during summer season.	3.1.1 To adopt mobility and parking plans to reduce the pressure of traffic connected with tourism daily flow.

Table 20





<i>General and specific objectives</i>	<i>Actions</i>
<b>URBAN ENVIRONMENT</b>	
<b>1. To preserve, valorize and requalify historical urban architectural patrimony</b>	
1.1 To improve public spaces quality	1.1.1 To intervene on urban fitting and flooring 1.1.2 To increase pedestrian areas
<b>2. To improve and rationalize mobility system</b>	
2.1 To develop non mechanized mobility	2.1.1 To realize an integrated system between public transportation, outskirts parkings and a cycle-pedestrian web
<b>3. To rehabilitate urban areas and their surroundings subjected to an uncontrolled construction development</b>	
Not present	
<b>4. To respect the local architectural history and tradition in the planning of the construction development</b>	
Not present	

Table 21





### 4.3. A sustainable programme for Saranda

General and specific objectives	Actions
<b>BIODIVERSITY</b>	
<b>1. To preserve land, coastal and sea habitat</b>	
1.1 To protect sea and land coastal habitat, local wildlife and plant life	1.1.1 To characterize coastal habitat that has to be adequately protected due to its environmental and ecological peculiarity. 1.1.2 To create protected areas for protecting and valorize natural resources.
<b>2. To promote and/or consolidate the activities of the parks and/or the protected sea areas</b>	
2.1 To create protected areas in agreement with local communities	2.1.1 To promote training activities and sensibilization campaigns for local communities on protection and valorization of environmental resources 2.1.2 To foresees the involvement of local communities in the creation and management of sea and land protected areas
<b>3. To improve ecological and environmental quality of agricultural and urban surroundings territories</b>	
3.1 To diffuse and rise environmental quality in the intervention of transformation/maintenance of the territories and the settlements	3.1.1 To realize guidelines and manuals of good practices aimed at preserving/improving biodiversity in the urbanistic and building interventions.

Table 22





General and specific objectives	Actions
<b>WATER, SOIL AND WASTE</b>	
<b>1 To improve sea water quality.</b>	
1.1.1 To reduce uncontrolled and not purify dumping into sea.	1.1.1 To realize an adequate municipal system of collection and treatment of water. 1.1.2 To realize small facilities (phyto-depuration and similar) in residential and tourism complex that cannot be connected with the general net.
<b>2. To preserve water resources.</b>	
2.1 To reduce pro capita water use.	2.1.1 To verify municipal water system functionality to reduce losses. 2.1.2 To promote sensitization campaign to reduce waste in water use. 2.1.3 To diffuse the use, in tourism and residential facilities, of tools for reducing water use.
2.2 To adapt tourism development to carrying capacity in terms of natural water resources.	2.2.1 To evaluate the disposable of water resources at a local level and to measure maximum daily and seasonal water needs of tourism population after local population use.
<b>3. To prevent soil and water table contamination.</b>	
3.1 To fight unlawful dumping and not controlled waste abandonment.	3.1.1 To realize analysis of soil and water to evaluate level of pollution and contamination. 3.1.2 To promote sensitization campaigns regarding the risks of non authorized dumping. 3.1.3 To realize an efficient service of differentiated waste collection and a system of waste treatment.
<b>4 To reduce waste production.</b>	
4.1 To reduce pro capita waste production.	4.1. Sensitization actions toward population and industries and services aimed at a better management of buying.
4.2 To start differentiated waste collection.	4.2.1 To realize a feasibility study of a differentiated waste collection and treatment.

Table 23







General and specific objectives	Actions
<b>ENERGY</b>	
<b>1. To control the raise of energy use.</b>	
1.1 To reduce pro capita use of electricity.	1.1.1 To diffuse the use, in tourism and residential structures of low energy use tools.
<b>2. To increase the use of renewable energy fonts.</b>	
2.1 To reduce pro capita use of fossil fuel.	2.1.1 To boost the realization of plants of renewable energy production (thermal, solar and photovoltaic) in tourism structures. 2.1.2 To realize plants for renewable energy production (solar, thermal and photovoltaic) in public structures.

Table 24





<i>General and specific objectives</i>	<i>Actions</i>
<b>CULTURE AND LANDSCAPE</b>	
<b>1. To preserve landscape and environment qualities of coastal territories.</b>	
1.1 To control and plan the building development in coastal areas.	1.1.1 To realize studies regarding residential needs and realistic estimations of tourism development. 1.1.2 To implement instruments to fight construction processes that cannot be checked. 1.1.3 To elaborate programmes and projects aimed at rebuild and improvement of areas interested by building process uncontrolled.
<b>2. To improve landscape quality of the territory.</b>	
2.1 To promote construction activity more compatible with landscape context.	2.1.1 To guide and regulate construction activity toward types of building more adequate at landscape context and local tradition, through guidelines and best practices manuals.
<b>3. To preserve and improve territory cultural resources.</b>	
3.1 To localize historical and cultural resources to protect.	3.1.1 To realize feasibility studies to protect more important sites with historical and cultural importance also for their tourism use.
3.2 To create better conditions to preserve existing cultural resources.	3.2.1 To promote active policies to insert cultural resources in sustainable tourism development.

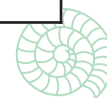
Table 25





General and specific objectives	Actions
<b>LOCAL SOCIAL AND ECONOMIC DEVELOPMENT</b>	
<b>1. To make local population taking part to the economic advantages of tourism development.</b>	
1.1 To integrate tourism development with local economic distinctiveness.	1.1.1 To promote the integration between tourism activities and the other economic sectors like agriculture and fishery, services, local typical productions, through the realization of an agency for integrated tourism development that can link together all the actors that participate at tourism development of the territory of Saranda to define possible synergies.
1.2 To train local human resources and entrepreneur skills to create new local tourism activities on a small scale.	1.2.1 To boost activities of the tourism development agency in the field of training and start-up of new companies of local tourism services (tourism guides, travel agency, diving, sail, etc...) also by connecting them with the initiative of the Institute of Marcelline nuns that operate in Saranda. 1.2.2 To promote any possibility and opportunity of confrontation and participation of local communities in the choices of development and management of tourism activities.
2.....	
<b>3. To minimize tourism pressure on local communities.</b>	
3.1 To reduce environmental impacts connected with anthropical development on the coasts and to minimize risks for the local population.	3.1.1 To define an environmental action plan of the city of Saranda based on the model of Agenda 21 with specific environmental improvement objectives.
3.2 To stimulate tourism development in accordance with local communities identity.	3.2.1 To communicate the choices of the more relevant tourism development to representatives of local communities to share long and medium terms strategies.
3.3 To invert negative migration trends in small and medium rural communities.	3.3.1 To realize local integrated development projects in the rural areas through eco-tourism development.

Table 26





<i>General and specific objectives</i>	<i>Actions</i>
<b>URBAN AREA</b>	
<b>1 To preserve, improve and re-qualify historical urban architectural patrimony</b>	
1.1 To rehabilitate existing architectural patrimony.	1.1.1 To identify and classify historical buildings still existing in Saranda and to elaborate a plan for their rehabilitation and use.
<b>2.To improve and rationalize mobility system.</b>	
2.1 To promote public transportation.	2.1.1 To realize an efficient system of public transportation.
<b>3.To rehabilitate urban and close areas that are being involved in a non controlled construction development.</b>	
3.1 To keep secured the existing town, with particular attention to seism risks.	3.1.1 To point out planning fields finalized to recover interventions for areas that are object of an excessive development, by foreseeing, in special cases, also the destruction of abandoned and unsafe building.
<b>4.To respect local architectural history and tradition in designing the construction development.</b>	
4.1 To preserve architectural, historical and traditional principals.	4.1.1 To define an architectural code, based on the local architecture, on indications for construction building and re-qualification of the existing.

Table 27





## 5. CONCLUSIONS

Tourism is an industry that live a quite fast growth and will still progress during the next ten years. In this sense it represent an important factor to boost development and economic diversification for the regions and the local communities of the Mediterranean, included the Adriatic Sea, able to create jobs and richness. This positive economic contribution mainly depends from the attractive characteristics of the destinations, that are tightly bounded to the valorisation of their natural and cultural specificities. In the same time tourism can also became the reason of important social and environmental impact. The movement of millions of tourists every year contribute to the production of a significant amount of gas emission produced on the global scale. Tourism is a large consumer of natural spaces, even the most fragile, and can generate a kind of development negative for environment and even on wellness of local communities as well as conflicts regarding the use of the territory.

These effects have been observed all along the Adriatic Coast, but several experiences, like those of the Province of Rimini, of Jesolo, as well as the recent initiatives of the Croatian government, are showing an inversion of tendency. More in detail, the strategies already realized in order to minimize the negative impact of tourism have operated on more then one level:

- by planning and managing tourism flows in tourism destinations (for example the evaluation of tourism carrying capacity);
- by introducing less polluting technological solutions like the use of electric vehicles or by realizing actions aimed at a better energy efficiency (like the pilot project proposed by the Municipality of Numana for the use of energy coming from photovoltaic panels).

The use of best practices of sustainable tourism is especially complex due to the fact that tourism is composed by a whole of sectors and activities very heterogeneous. The introduction of such practices will always have to take into consideration a deep analysis of the different branches that compose tourism (transport; feeding, hotels, attractions, events, commerce, etc...) in order to study the most adequate strategy and with the highest capacity of replication. More then this, the success of a policy of sustainable tourism is also influenced by the sustainable development practices of the other economic activities that insist on the same territory (forest, agriculture, fishery, etc...). In the same way tourism can generate conflicts with the others economical vocations of the territory. For this reason it is necessary to create an integrated management of the4 territory to optimize in a sustainable way the common effort in a mutual way. This aspect represent one of the main challenges in the next years.

Due to the essential role that sustainable development has in optimizing economic, environmental and socio-cultural long term growth in tourism destination and on the other hand to the negative contribution that tourism can carry in many environmental aspects on a global scale (like the ones of the Kyoto Protocol), tourism destinations all over the world are more and more orienting themselves toward policies and strategies of sustainable development.

Such logic imply in our case study that all the involved actors pursue the objectives of growth, quality and economic sustainability that are present in the policy proposed for Numana and Saranda, without forgetting those environmental and





socio-economic aspects that insure on a long term the sustainability of the tourism industry. In this sense the instrument of tourism carrying capacity evaluation has demonstrate to be able to give the knowledge basis to define a suitable policy of development and management, specifically referred to tourism from a sustainable point of view. The experience developed within ASTA project allow to say that a sustainable strategy for tourism development of a coastal destination is mainly bounded to:

- to define, adopt and apply instruments for the evaluation of tourism impacts on the territory, especially on environment and socio-economic structures;
- to involve the more extended representation of public and private partnerships within the territory;
- to innovate the entire tourism sector by introducing tourism products designed and conceived into a sustainability logic;
- to coordinate the actions and the activities with the other regional tourism systems and with the horizontal planning of the Region.

The matured experience within ASTA project has the characteristics of a model exportable in any coastal destination of the Mediterranean. The application to two very different destinations like Numana and Saranda, prove that a strategy based on tourism carrying capacity evaluation represent an important occasion to define a policy for all the realities of the Mediterranean area that want to invest in sustainable tourism.





