

Jasmina Gržinić, Ph. D.

University of Pula
Department of Economics and Tourism
“Dr. Mijo Mirković” Pula
Preradovićeveva 1
52100 Pula
Hrvatska

Patricia Zanketić, M. Sc.

Kršan Tourist Board
Faculty of Faculty of Tourism and
Hospitality Management
Opatija
Hrvatska

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THE ISTRIAN SEABED – A PERSPECTIVE OF SUSTAINABLE TOURISM DEVELOPMENT

Istria is enjoying an upward trend in tourism despite the general economic recession on outbound tourist markets, the reduced scope of travels, a preference for shorter holidays, the price increase of services in Istria, and the process of repositioning and restructuring the tourism offering of Istria. Accordingly, the authors call attention, in this paper, to the need for continuous public-private collaboration and the systematic implementation of the Master Plan of Tourism Development in Istria. The paper aims at underlining the importance of developing sustainable tourism, capable of yielding enhanced benefits to the local community, and generating and multiplying the increased economic activity in the bottom-line. That's why we have been exploring the current developments of diving tourism in the most propulsive Istrian tourist companies – the engines of Istrian growth and development, as well as our recommendation of further action plans. In this paper we're going to present the temporarily results of our research in progress started in spring 2009.

Keywords: seabed, Istria, sustainable development, diving tourism, tourism planning.

1. INTRODUCTION

Plans for the strategic development of tourism in destinations are focused on developing prime tourism offerings and augmenting competitiveness on targeted tourist-generating markets. Sustainable tourism development should ensure long-term and short-term equilibrium, while creating value for all market participants. This calls for actors across all levels to behave in accordance with the principles of sustainable development. To meet this goal and achieve long-term sustainable development in tourism, it is necessary to:¹

- *understand, identify and satisfy* all the needs of tourists, because, otherwise, they will share the negative implications of their personal experiences with everyone in their environment, and this could cause great harm to a destination's image;
- *ensure* the prerequisites needed for businesses to operate profitably on the market, because by making a positive business environment, conditions are created that will ensure the arrival of new investors and the future development of tourism;
- *invest* in the education and training of tourism workers across all levels, because of the exceptionally personal contact with guests and the essential need for highly educated managers;
- *insist* on the protection and rehabilitation of natural wealth, which is a primary resource of Croatian tourism;
- *respect* cultural values and the diversity of locations and residents, that is, destinations and local people who stand to gain directly from tourism development. Their attitude towards tourism and tourists is vital to the impression that a country or a destination gives; it impacts both on the guest's satisfaction and on the overall benefits from tourism;
- *secure* the ongoing active role of the state. By developing infrastructure, amending legislative regulations, etc, the state can greatly influence the country's tourism potential, while enjoying the long-term benefits of tourism development.

To ensure that the above goals can be accomplished, it is necessary to strike a balance between the relationships, needs and aims of the various actors on the tourist market. Only in this way can the preconditions to stable and long-term sustainable development in tourism be created. In light of global environmental, social and economic challenges, the international community has set up a framework to ensure sustainable development. The World Tourism Organisation defines sustainable tourism development by saying:

¹ Strategy of Croatian Tourism Development by 2010 – Final Version, Republic of Croatia, Ministry of Tourism, 2003, p. 16.

Sustainable tourism development takes into account the needs of today's tourists and tourist destinations, but it also protects and enhances the potential for development in the future. All resources may be used only to the extent to which the economic, social and aesthetic needs of all actors on the tourism market can be met.

In the past two decades, as people have become willing to spend more on a good tourism offering, there has also been an increase in the supply and diversity of complementary facilities and services included in tourist packages. Increasingly, one or another form of sport is being offered, in addition to a country's beautiful sites, appealing locations and good entertainment. Recreational diving is one of the few things that brings together all the above mentioned while offering the possibility of visiting uninhabited places, and it implies the development of diving tourism.

As the entire Adriatic region merits special care and protection, exploitation of the sea should center on usages that are capable of ensuring appropriate development, and all activities should be coordinated with what the area's natural potential can actually provide.

2. THE SUSTAINABILITY OF TOURISM AND ECOLOGY

The concept of sustainable tourism is the result of appropriate tourism-development planning combined with environmental protection. Because the Istrian seafloor is still a zone of preserved natural equilibrium, tourism without planned development could jeopardise it.

The number of people becoming a part of tourism movements continues to grow. The WTO forecasts more than 1,500 million international tourist arrivals. Exaggerated numbers of tourists in ecologically vulnerable areas are the cause of damage to the main tourist attraction – the environment. Sustainable tourism development represents a step away from the familiar form of “sun and sea” tourism developed in the coastal regions of the Istrian peninsula.

There are many definitions of sustainable tourism, including eco-tourism, green tourism, and environmentally and culturally responsible tourism. Because of its undesired consequences, mass tourism has brought about the need for developing eco-tourism.

Population increase during the tourist season has primary and secondary effects on the environment. The negative impact of population growth is considerably greater than in the case where primary factors are involved². This has made selective forms of tourism accepted as a concept of tourism development for the future.

² Ehrlich's model. Population growth (P) causes an increase of capital damage $F = f(P)$ resulting in increased damage to the environment $I = P \times F$, in Hassen p. 210.

The interaction of tourism and sustainable development evolves through:³

1. Interaction: the nature of tourism as a service industry based on new experiences, and the direct and indirect interaction of visitors, hosts and the local environment,
2. Awareness: Tourism boosts the awareness of national and cultural diversities,
3. Independence: Tourists are seeking new experiences, clean and pristine environments, authentic historical and cultural heritage, and friendly hosts.

Inviting government bodies, all types of tourism organisations and the private sector engaged in tourism, the WTO organised a conference to promote the use of strategic planning in tourism. The result of this conference was the *Muscat declaration*⁴, aimed at preserving the special assets of individual destinations and raising awareness of the need to rationally preserve the heritage.

Some authors have explored the impact that local authorities have on developing and managing tourism (Bosetti et. al.: 2005). Other, macro-economic analysts focus on the impact tourism has on a country's economy, the triggering of adverse economic effects, and the demands for state intervention (Nowak et al.: 2005).

The major portion of tourism scholars around the world has studied the ecological effects of tourism on the development of cities, towns, regions, etc. (Davies and Cahill: 2000, Taylor: 2003). By monitoring the impact of projects of international institutions and the effects of tourism, many authors have come to the conclusion that most of the projects supported are conservation focused, while there are very few projects that monitor the results and benefits derived from using environmental standards in tourism (cf. a study of tourist preferences in the case of Laos, Morimoto: 2005).

Water sports – even simple swimming and bathing – may have a harmful effect on flora and fauna (Muller, H.: 2004, p. 110), (Federal Environmental Protection Office, 1997, p. 51). The flora and fauna of the seabed are of great importance to leisure and tourism, and they represent a major attraction for tourists.

Sustainability is a key concept in developing diving tourism in Istria. This relationship is usually impeded because of the lack of interaction between the authorities and practitioners in the field striving to put the concept of ecotourism development into action. (Garrod, B.: 2002). Although the ruling institutions seek to bring about and conclude agreements that support sustainability, implementation in practise is grounded on a desire for generating profits

³ After Making tourism more sustainable, A guide for policy makers, UNEP, WTO, p. 9-10.

⁴ Cf. http://www.hrpsor.hr/upload/gospodarstvo&odrzivost_br.2.pdf (gospodarstvo i održivost, glasilo hrvatskog poslovnog savjeta za održivi razvoj).

(low opportunity costs) from the resources used. This results in an increase in the number of visits with damage to the locality as a long-term effect (Leujak, Ormond: 2007)⁵. To offset negative factors, it is necessary to adhere to the plans in documents adopted by public institutions in tourism that act with the intention of implementing sustainability.

Selective forms of tourism (in particular those pertaining to adventure) are being valorised in tourism purposes and represent additional revenue for Croatian tourism. It should also be noted that because diving tourism is so closely linked to other forms of the tourism offering, on no account should it be regarded as a stand-alone branch of tourism capable of surviving on its own. Because the Istrian seafloor is still a zone of preserved natural equilibrium, tourism without planned development could easily jeopardise it.

3. WORLDWIDE EXPERIENCES IN DIVING TOURISM

Diving combines some of the features of nautical and adventure tourism, and it is also connected to speleology, underwater fishing, gastronomy, excursions and archaeology. It follows that exploring the seabed calls for specific knowledge and skills that are not lacking in Croatia. Namely, because of a rich historical heritage, Croatia's seabed possesses a rarity on a world scale – as many as seven, fenced-in underwater museums with intact shipwrecks from Antiquity⁶.

The marketing strategy in Croatian tourism development proposes activities in developing selective forms of tourism in the future, in particular, adventure tourism⁷. The tourism industry of Istria is developing a tourism product that is backed by longstanding tradition and has a promising future in front of it. Of special interest are the Bike and Gourmet projects, which integrate the peninsula's sports, gastronomic, enological and olive growing offering. Diving and tennis are seen as new products with substantial potential.

⁵ An analysis of the impact of diving of coral reefs shows that almost 80% of all contacts have caused damage. Notably, 65% of these contacts between people and nature are of a voluntary nature. (http://www.dep.state.fl.us/coastal/programs/coral/documents/2004/SEFCRI/Divers_and_the_Environment.pdf)

⁶ Delibašić, Z. (2007). Stanje i perspektive ronilačkog turizma u Hrvatskoj, International Scientific and Professional Conference, *Sport for Everyone to Improve Quality of Life*.

⁷ 2008 Istrian Marketing Plan, Istria Tourist Board, December 2007, Poreč.

Table 1. Development concept of eco-tourism and development opportunities

“Hard approach” (Active, profound)	“Soft approach” (Passive, shallow)
Commitment to environmental conservation	Dormant sustainability, neglected
Specialised trips	Diverse trips
Long trips	Short trips
Small groups	Large groups
Physical activity, physical challenge	Physical passivity and comfort
Several expected services	High expectation of tourism services
Profound connection with nature	Superficial connection with nature
Focused on personal experience	Focused on interaction
Independent travel	Travelling organised through tour operators and travel agencies

Source: by the authors after: Weaver, D.B. (2002). “The evolving concept of eco-tourism and its potential impacts”, *International Journal of Sustainable development* (special editions of eco-tourism), 5(3), forthcoming.

In the world literature, implementing the sustainability concept is primarily linked to selective forms of tourism, and it is based on applying the so-called soft or hard approach to sustainable development. The principles listed place the Istrian destination in the centre of the two poles of the successful application of this concept (Table 1).

Diving tourism implies involving tourists in at least one diving expedition during their stay. Around the world, the diving experience is realised with the use of day boats, specialised day boats and dive training, as well as through a number of services that facilitate the experience. Exploration of the Istrian seabed is a primary development issue because of the damage caused to archaeological sites when divers fail to adhere to the routes permitted. On the other hand, the lack of standardisation in recreational activities is the cause of many incidents that occur in exploring the seafloor.

Standardising a recreational activity such as diving is essential to ensure that, during their vacation, divers can enjoy experiences and training in a way that is safe. According to the Divers Alert Network (DAN)⁸, about 150 diving incidents are reported worldwide every year. Most are successfully resolved. In addition to providing medical assistance, DAN also offers insurance policies, training and learning, organises seminars, and arranges the donation and renting of gear. The scientific public oversees the entire process. The organi-

⁸ <http://www.diversalertnetwork.org>

sation's mission, to "address the challenges of the future by working for each and every individual member", is derived from the definition of sustainable development "(...) that meets the needs of the present without compromising the ability of the future generations to meet their own needs"⁹.

Croatia has no organisation responsible for systemically recording diving incidents. Approximatively speaking, about 15 people are involved in such incidents every year. Engaging in this alternative form of tourism is a high-risk activity given Croatia's involvement/non-involvement in diving-tourism traffic and revenues on a world basis. Worldwide, the amount of revenue from diving tourism is systematically monitored, as well as what generates it. Conducting regular tourist surveys regarding the quality of and prices in destinations focused on diving tourism can help to augment the multiplier effects tourism has on development.

According to research by Rodale's Scuba Diving Magazine (USA)¹⁰, the major factor in selecting a destination for this type of tourist is the quality of the diving experience and its price. The study shows that a diving tourism destination needs to provide:

A healthy maritime environment;

- Travel information;¹¹
- A large variety of diving sites (walls, coral reefs...);
- Good visibility;
- Preserved underwater world.

The study also covered the part of the tourist population whose primary travel motivation was not diving, but visiting beautiful landscapes, experiencing something new and enjoying a pleasurable environment.

In addition, the magazine presented the fact that the most important factor in selecting a diving operator is the operator's reputation¹². This type of clientele tends to stay in hotels, resorts and motels (63%); in hotels (45%), while only 33% choose to stay with friends. The types of foreign visitors include independent travellers (49%) and couples (31%); about 60% of all licensed divers belong to the 15-34 age group.

The Tourism Queensland¹³ magazine conducted another important study of this type to gain a better understanding of the diving-tourism market. Results confirmed that it is necessary to:

⁹ Agenda 21 (global consensus on sustainable development) - World Summit (1992). Conference on Environment and Development, Rio de Janeiro.

¹⁰ <http://www.scubadiving.com>

¹¹ Most visits (26%) resulted from information gathered on Web pages (September 2003).

¹² Visitors to the Great Barrier Reef Marine Park were surveyed.

¹³ <http://www.tq.com.au/>

- Develop a marketing profile for diving tourism;
- Provide the information that this type of tourist requires;
- Identify the factors and activities needed for developing businesses involved in diving tourism.

This study showed that other holiday activities tied to this market segment include: going to the beach (75%), going to restaurants (68%), sightseeing (49%), taking walks (36%), going to pubs and disco clubs (35%), and shopping (33%).

4. ISTRIA AS A DIVING TOURISM DESTINATION

Diving tourism is a young and promising attraction and branch of tourism not only in Croatia but in the world as well. In Croatia, interest in this form of selective tourism began to grow rapidly in 1996 after the termination of the war. With its 1,185 islands and 5,835 kilometres of coastline, the Croatian Adriatic is an ideal platform for developing hunting and fishing tourism. Diving tourism, however, has failed to develop to any significant extent that could yield long-term benefits to the part of the coast on which it is pursued.

4.1. Preconditions to development

In the past decade, diving tourism in Europe has become a high-growth industry with an average growth rate of 15 – 20%. This indicates a distinct need for increasing the number of facilities to accommodate this type of tourist. Where diving tourism in Croatia is concerned, it is estimated that although some 100,000 people dive in the sea every year, only about 60,000 do so legally, that is, through organised diving expeditions. The majority of divers, equipped with underwater cameras, enjoy exploring the seabed world, while a small share likes to engage in underwater fishing.¹⁴ The development of diving tourism in Croatia is greatly facilitated by new motorways that have shortened the time needed for travelling and are helping to develop weekend tourism (diving tourism included), as well as by a large number of charter lines and shipping line connecting the islands and the mainland. A constraining factor in development is the small number of accommodation facilities geared to this type of (mostly high category) clientele. Dive tourists generally have a high purchasing power, are highly educated and have a preference for the above average (cf. Chapter 3. Worldwide experiences in tourism).

Clearly, Istria has a large number of diving centres and possesses a huge natural potential for developing this form of tourism. The services diving cen-

¹⁴ www.vjesnik.hr 05. i 06.07.2008. (13.09.08)

tres provide include renting top-quality and tested equipment, repairing personal equipment, and giving advisory assistance. The vicinity of a hyperbaric chamber in Pula enhances diving safety. Because of pleasant sea temperatures, diving in Istria is possible all year round, but especially in the months from May to November.

The existing resources that Istria possesses include¹⁵:

- 43 registered diving centres, most of which provide top-quality services and are equipped to European standards;
- 13 diving clubs;
- current diving programs: discovery diving, shipwreck diving, marine biology, underwater photography, technical diving, diving lessons;
- 26 appealing shipwrecks along the length of Istria's coastline (and an estimated 10, yet undiscovered, wrecks);
- attractive and endemic seabed flora and fauna;
- marine biology experts;
- a professional association of diving centres within the Croatian Chamber of Economy (a reference organisation that brings together the representatives of diving centres);
- a diversity of diving sites;
- the possibility of diving all year round;
- an estimated number of about 50,000 divers yearly;
- an estimated number of about 550,000 overnights (diver + companion) yearly in Istria.

The extent to which the profession and the scientific public have displayed an interest in developing diving tourism is illustrated in the following section in which the authors present the main results of the research on diving tourism in Croatia.

In 2005, the Department of Tourism of the Croatian Chamber of Economy – the County Chamber of Pula conducted a study that involved 17 diving centres in Istria. The results showed that a little less than 23,000 dives were made in 2005. The number of dives is the basic indicator of the volume of underwater diving activities. The number of dives per centre range from 300 to 4,900 dives per year. There was an average of 1,322 dives in 2005. Of the 17 centres, 12 have permits for shipwreck diving, which cost them from HRK 6,000 – 20,000 a year.

The Tomas 2007¹⁶ survey, conducted by the County of Istria, reveals that during their stay in the destination, more than a third of all the guests are en-

¹⁵ 2008 Istrian Marketing Plan, Istria Tourist Board, December 2007, Poreč.

¹⁶ Institute of Tourism, Zagreb.

gaged in sports and recreational activities (diving, fishing, adventure sports, tennis, etc.), touring the oil-olive roads, bird watching, and in coached health and recreational programs.

The 2008 Master Plan of Istria sees diving as a form of the offering that has the ability to prolong the tourist season and enrich the destination's offering. This in particular refers to shipwreck diving, the part of the product that has the greatest potential.

Table 2. The 2008 Marketing Plan of Istria

Program (product development)	Istrian County Tourist Board
Product systematisation	90,000
Products and DMCs	460,000
Bike tourism	140,000
Istria Gourmet	220,000
<i>Diving</i>	100,000
Tourism in the interior	100,000
Domus Bonus	150,000
Total	800,000

Source: 2008 Istrian Marketing Plan, Istria Tourist Board, December 2007, Poreč.

Table 2 illustrates the development program for Istria's tourism product, diving included. The table demonstrates the importance of this segment of the selective tourism offering, together with Bike tourism and the Istria Gourmet project, in developing tourism of the future. The estimated costs for diving amount to HRK 100,000 according to the 2008 Master Plan of Tourism Development in Istria. Although reasonable, this amount is still not enough, considering the fact that foreign citizens, who account for about 85 percent of the total number of divers in Croatia, are well-acquainted with other diving destinations the world round and the quality of their offering.

In the government budget, the revenue earned from diving is not statistically monitored in any comprehensive or official way. Only the 2001-2005 Strategic Marketing Plan of Croatian Tourism cites the fact that the total revenue gained in the diving sector in 2000 amounted to DEM 54,162,000¹⁷.

Following a series of field studies, the Nautical Tourism Association of the Croatian Chamber of Economy has crafted proposals for managing and improving diving tourism and diving in general to protect the interests of the government budget aimed at¹⁸:

¹⁷ Adriatic diving, THR, Barcelona 2002.

¹⁸ <http://www.diving-hrs.hr/turizam/turizam.htm> (diving tourism association)

- making diving as safe as possible by ensuring that it is carried out in an organised way by qualified operators;
- protecting the tourist image of Croatia as a safe diving destination;
- protecting the sunken cultural heritage of Croatia;
- combating illicit market competition.

By taking this approach and by analysing responses, insight is obtained on the links between the local community and tourism with regard to diving that clearly need to be encouraged. Also, information is garnered as to which local groups are affected directly and which, indirectly, and about the impact that diving tourism has on the sustainable development. This could serve as the subject of future research linked to this issue.

4.2. Untapped diving resources in Istria

Istria has a considerable number of locations at which shipwrecks can be explored (defined as “The Adventure of diving”)¹⁹.

The wreck of the passenger vessel, *Baron Gautsch*, is definitely one of the best-known wrecks in the northern Adriatic. It is located in the waters in front of Rovinj, which has about ten diving centres. Having a length of 84.5 metres and a beam of 11.6 metres, the vessel was powered by three steam engines with a total of 4600 HP and could achieve a maximum speed of 17 knots. It can be found 6 sea-miles southeast of the *Sv. Ivan na Pučini* lighthouse at a depth from 28 to 40 metres, with its upper deck beginning at 28 metres and its lower, at 42 metres.

The following underwater attractions of Istria’s seabed can be found on the Web pages of the Croatian National Tourist Board:

Flamingo – a torpedo boat of the Austro-Hungarian Navy that hit her own underwater mine while patrolling the sea west of Premanture during WWI. Due to her specific shape and compact steel construction, she was long assumed to be a submarine. The wreck has considerably sunk into the surrounding mud. This is an attractive location suited to advanced categories of divers. Visibility is often very good. The boat is 40 metres long and lies at a depth of 40 – 45 metres.

Josefina – a merchant ship that went down in 1915. Nothing is known of her true name and its history.

Coriolanus – a battle ship of the British Royal Navy of the Shakespeare class; the wreck is under the protection of the Croatian Ministry of Culture. The shipwreck’s location is: 45° 19’ 9” northern latitude and 13° 25’ 25” eastern longitude, about 6 Nm from the Istrian coast.

¹⁹ www.istra.hr (Istra diving)

Giuseppe Dezza – a torpedo boat of Italian production from WWII. The boat has a length of 73 metres, and a beam of 7.3 metres. Well preserved with cannons on deck.

U-81 – a German Navy submarine, infamous for having sunken the *ARC ROYAL*, an English aircraft carrier. She is located 4 miles west of Cape Kamenjak (Premantura).

John Gilmore – a merchant ship built in the John Gilmore Shipyard in Scotland. As her true name is unknown, divers refer to her by the shipyard's name. She sunk in 1915. Because of her severely damaged bow, the ship is believed to have hit one of the 1,450 mines in the underwater minefield that was set up during WWI as to defend the Pula war port.

Varese – an Italian merchant steamboat with two masts that transported phosphates from Venice to Tunis. Launched in 1870, she was struck by disaster in January 1915 while sailing into the port of Pula. After a direct hit to her prow by an underwater mine, she sank quickly. The vessel's remains are located at a depth of 32 – 41 metres. Due to a muddy seabed, visibility is often quite poor.

Hans Schmidt – This wreck was long referred to as 'Istra', her true name being unknown. This is an attractive diving location with good visibility. The vessel is 100 metres in length and was built in 1920 in the Netherlands (under the name of 'Albireo'). She is named after her last owner from Germany. Very little is known of the vessel's history prior to sinking, and it remained unidentified and without a name for a long time after her discovery on the seabed. The wreck is at a depth of 32 – 40 metres.

National Park Brioni – the national park is under special protection, and diving is allowed only through licensed dive centres. Cape peneda is situated on the southeastern side of the brijuni National park. This is a dive site suited to all - from beginners to advanced divers. Walls and tunnels teeming with flora and fauna are located at depths of 4 - 35 m. This water area abounds in highly appealing Adriatic seabed flora and fauna. Because this is a protected area, divers can see large scorpion fish, as well as corals and sponges of all shapes and colours. The seafloor surrounding the islands is a rife with numerous crevices in rocks, small caves, and tunnels in the seabed, that are particularly suited to many fish species.

Fraškerić is a network tunnels located west of the 'Indie' motor camp and south of Pula. A very attractive and well-visited location, it is suited to divers of all categories, although diving is recommended with guides from licensed diving centres. In this zone, south of Pula, there is also an interesting underwater wall, beginning at 14 metres and ending at a depth of 35 metres, on which there is a sailing mast, stuck in a crevice of the wall.

The Stoja Reef – located south of Pula, the Stoja Reef has a very special geological configuration with canyons, crevices and caves teeming with fish species. It is an excellent location for underwater photography.

Valovine is a location for so-called relax diving. Located west of Pula, immediately off the shore, this network of caves ends in a 20 metres deep canyon. This is a very attractive location for all categories of divers and extremely appealing for underwater photography.

5. DEVELOPMENT OF DIVING TOURISM IN ISTRIAN TOURISM INDUSTRY – RESEARCH AND QUESTIONARY SURVEY RESULTS

Trying to assess the diving developments in the Istrian tourism industry, we've started the research in spring 2009 during the Eastern holidays and it is still in progress. We've interviewed the diving customers who are interested in exploring a dive site in the Istrian County.

They were asked to fill them up anonymously. The research has included hundred tourists in eight leading tourist companies in the County that cover approximately 94% of the regional touristic market. In the short questionnaire 77 people who returned and filled it correctly (female 42, male 35) were asked about their diving experience and the opinion of diving tourism in Istria. According to the above-mentioned, the sample can be considered as a representative one. The sample included people of 24 to 66 years old.

The questionnaire was delivered in cooperation with the hotel receptions. It consisted of general-type questions on diving experience, Istria as diving destination, how they get information about diving destinations, individual or group visiting, and then followed by a group of questions about environmental protection, marine reserves, additional fee to support it, and, finally there was a group of questions on diving future development and benefits on the local economy.

Here we present the results relating to our investigation. A large number of the examined tourists (57 of them) are interested in diving tourism but has not ever heard about any diving holiday destination in Croatia. Only 12 of them got some information about diving by the Internet source on the Istria tourist Board web site. Furthermore, 44 visitors have some diving experiences from before and almost 36 of the visitors multiple their visits (diving holidays) in one year. According to the mentioned data 26 divers have a great number of divers experience (10-15 years). We also recognised that 18 of them have a medium (2-5 years) and only 10 of them a lower diving experience (1-2 years). We have to admit that we have come to a question arising if diving reporting will become mandatory for all the entities, or the diving groups in Croatia.

The greatest number of all multiple visits have been organized on the Red Sea, in the Caribbean and in Australia. The reasons are the best organisation in destination management and comfort of living accommodation rather than primarily cost of the holiday or coral reefs. We were interested which area they have visited as a part of the diving holiday in Croatia. The answers received were: Scuba-Rovinj (9 answers), Diving centar Plava Laguna (12 answers). This shows that our tourism still has no renowned diving tourism as a primary arriving factor but only as an additional opportunity. On the other hand there is still no built operator's reputation. That's why we have found some shy, but positive movements among Istrian diving centres considering intentions of their web recognitions today and in the near future despite of the presently undeveloped practices in this field. As we can notice, tourists have chosen Rovinj and Poreč as our sport tourism destinations and as the ideal promoters of their disposable attractiveness.

The examinees (39 of them) will pay additional fee to support marine reserves with the option of diving but not fishing. In the question what is the most important statement that justified diving, 87 percent of the potential divers rather prefer the clarity of the seawater than the huge variety of fish.

The above action is required because numerous warnings, coming from destinations around the world, are sending off messages for help as sustainable development is brought into peril. Some destinations (for example, the Great Barrier Reef of Australia) seek to solve the issue of sustainability through a price rebound²⁰. Experiences from all around the world have shown that clients tend not to complain about paying fees only in case when they feel their money is going to a sustainable cause. What's more, this has shown to be an investment in destination appeal.

The same has shown the level of environment-related education of the tourists that are coming to Istria and is justified with their strong wish to dive in addition to environmental protection. On the other hand we can assume that the tourism offer entities have problems with data availability, complexity of environmental impacts measurements, related costs, information reliability and confidentiality, as well as with reluctance to report because of uncertainties and potential environmental liabilities that could arise. Tourism, as part of the services sector, as it is previously stated, reports its environmental performances in an average less than other industries like oil, gas, chemical, etc²¹.

The useful information for the diving experts and their future work organisation is that 52 tourist out of the sample think that holiday diving can only be

²⁰ For organising visits to the Great Barrier Reef Marine Park, tour operators pay a daily environmental charge per visitor (4.50\$) as well as a tourism licence.

²¹ cf. Mošnja Škare, L. i J. Gržinić. "Environmental accounting in function of sustainable development of highly touristic region of Istria", Second Italian Conference on Social and Environmental Accounting, 17-19 september, Rimini, 2007.

conducted within the organisation and under the supervision of a diving centre that is authorised and qualified for recreational and holiday diving. A level of their training/qualification is the first level (sports diver, open water diver but no second or higher levels of education).

Dive centres throughout Istria provide diving courses (CMAS, PADI, NITROX, APNEA). It is obvious that the Croatian tourism supply is educationally well organised and provides safe visits to exciting underwater sites. At these centres, tourist can rent top-quality and tested equipment or have their own equipment repaired and maintained.

It is confirmed, from the survey, that 44 visitors with some diving experiences have at least 4 logged dives. Furthermore, potential diving tourist like places that are somehow visibly marked. All of them agree that holiday diving in registered dive centres does mean the individual diving permit²².

Although it is usually expected that divers would be more interested in diving holidays due to better capacities and community impacts, the middle-aged tourists have given us pretty similar answers like the large benefits for the local economy in the Istrian resorts according to the resorts they have already visited before and that the same will grow over the next ten years.

The project tasks for developing diving as a selective form of tourism include:

- a revision of the data regarding the offering (number and categorisation of diving centres);
- gathering and preparing the data;
- processing the data gathered and publishing the results on the Istria Web portal;
- producing printed promotional material;
- project promotion (PR activities, advertising, presentations, mailing);
- limiting the volume of diving activities to protect the environment;²³
- developing marina tourism that involves developing tourism in coastal areas (population pressure, construction activities), and preserving infrastructure on the islands;
- forming a group of tour operators associated with this form of selection tourism;
- compiling a list of protected areas (four national parks in the coastal region);

²² The diving card is valid until the end of the year in which it is issued for individual diving, it is necessary to obtain a permit issued by the port authorities. The permit costs Hrk 2,400 and is valid for 365 days from the date of issue.

²³ Visits by more than 5,000 divers in the space of one year to the Red Reef of Australia brought the sustainability of this area into jeopardy.

- providing auxiliary services and facilities (for example, diving gear);
- providing accommodation facilities within diving destination zones;
- making the most of the advantage provided by the existence of a professional association of diving tourism;
- engaging the participation of scientific institutions to track trends (market growth, tourist experience value and quality, island development, higher employment rates).

The previously presented results have derived from the tourists staying in the leading tourist companies in Istria. Since we perceive diving as an important and high profitable part of our tourism, then the large entities would also have more expertise and resources for the problems and requests of the smaller ones. But, we disagree that the smaller ones should be exempted. They must work together in the destination management synergy. Furthermore, compliance with regulations should also be considered in relation to the level of its enforcement.

6. FINAL THOUGHTS AND PERSPECTIVES

6.1. Marketing activities

Dive marketing should focus on the dive market (diving magazines, outlets, Web sites, etc.). Since there are a huge number of similar Web sites, tourism organisations and operators need to centre on the specific features of their offering relative to other offerings worldwide. For example, Croatia boasts a high level of general safety, unlike many of its rival destinations in Asia and Africa. Marketing activities need to focus on four elements of sustainability – socio-economic, managerial, environmental and cultural – in the selected Istrian destinations (see Table 4).

In such conditions, the work of tour operators is becoming every more demanding²⁴. When designing tourist packages, they need to include all other activities in which this market segment participates (good restaurants, sites for walking/driving, etc.). It is often the case that diving-tourism related travels involve visits to a more than one destination (for example, to both sides of a coast). This requires taking into account the necessity for collaboration when designing a package tour of this type.

²⁴ The National Tourism Alliance of Australia (NTA) has reported an increase in adventure tourism from 200% to 1000% that could put at peril tour operators whose offering is largely based on diving tourism.

Table 4. Example of questionnaire targeting diving tourism destinations

Available diving attributes?	<i>Location quality, bio-physical attributes, access, current tourism opportunities, accommodation, restaurants</i>
Tourist profiles and experience?	<i>Demographic features, tourist experiences and perception of locations, interest in the host community</i>
Community expectations, outlook for diving tourism, impact on the life of residents and the environment?	<i>What action is the local community taking to increase revenue and make development sustainable?</i>
To which extent is diving tourism supported in terms of conservation campaigns?	<i>Awareness, educations, conservation, support of the management</i>

Source: the authors' conclusions

As part of its marketing activities, the Croatian National Tourist Board is active in creating an appropriate, appealing and exclusive approach to promoting diving tourism in Croatia (presentations on the world tourism market, in particular at boat and diving shows). Hopefully, the touristic companies of Istria will probably recognize both the messages of the research presented in this paper.

6.2. Education

And last but not least, it is necessary to systematically monitor and research diving tourism, provide training for and encourage the interaction of all participants, and ensure state incentives. Legislation concerning underwater activities in Croatia is still in the phase of defining final legal provisions. Through practise and the enforcement of regulations, it should ensure that the development of diving tourism is managed in the best possible way, while preserving the wealth of the Adriatic seabed and enhancing diving safety. According to the existing regulations, divers in Croatia are required to possess valid diving permits. When diving in licensed diving centres, personal permits are not required. In special zones, diving is not allowed even when divers have personal permits. These zones are under a special protection of the Ministry of Culture, and diving in them is allowed only in the company of diving guides from authorised diving centres.

Diving centres and clubs throughout Istria are equipped for organising and conducting diving activities at a variety of appealing locations, providing diving assistance, and organising diving course (Cmas, Padi, Nitrox, Apnea).

6.3. Interaction of factors in the planning process

A planning system has the role of promoting, organising and regulating the eco-focused tourism activities of marinas, ports and diving. Plans adopted by the state and the local communities provide a vital starting point in promoting and governing tourism development. In addition to formal activities, informal activities also require constant monitoring and need to relate to the base plan.

Chart 1 illustrates the factors that sustainable development implies and the system of links through which input factors impact on the outcome of tourism development and on a country's revenue.

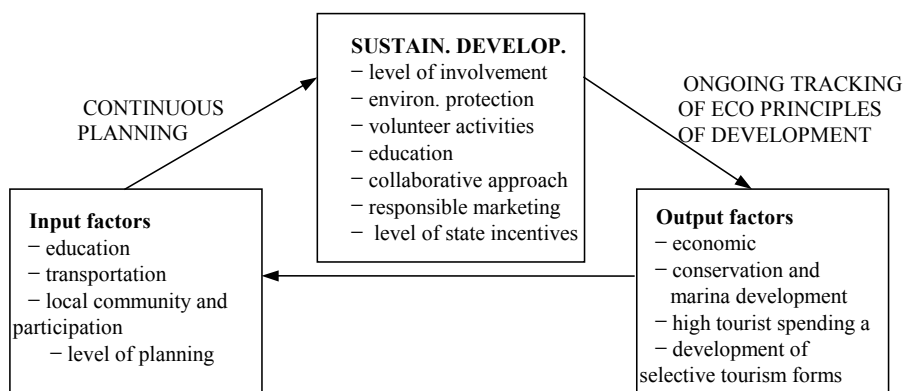


Chart 1. Interaction of links – tourism planning of alternative tourism forms

Source: By the authors

The chart demonstrates the set of principles through which it is possible to comprehend development that focuses on eco tourism sustainability and the instruments through which it can be achieved.

Planning alternative forms of tourism in Croatia should focus on²⁵:

- development that parallels available resources;
- the meaning of “generational values and future generations”;
- securing benefits for the human population from economic activities (assuming the distribution of benefits from the use of resources);
- exporting the costs of economic growth and environmental quality to other places (destinations);

²⁵ Authors' conclusions after EU Sustainable Cities Report u Fudge C., et al. (1996). *European Sustainable Cities, European Sustainable Cities Campaign ECSC-EC-EAEC*, Brussels – Luxembourg : European Commission, Directorate General XI.

- promoting local sustainability through local resource management;
- making up for damage caused by using revenue earned from tourist visits;
- encouraging state incentives for an interest in alternatives to mass tourism.

Sustainability principles can be applied in different ways, that is, as a “hard” or “soft” approach (as earlier described cf. supra Table 1). The soft approach upholds the “sustainability market” concept, that is, the conservation of resources for the purpose of development.²⁶ The hard approach is an obstacle to economic activities because it manages and reduces demands in a way that lessens the existing level and quality of reserves in the environment, while jeopardising the sustainability of Istria as a region.

7. Conclusion

As a selective form of tourism, diving is a high-growth tourism activity with recreational features. It is also one of the more expensive forms of tourism, and, as a rule, the people, who travel to engage themselves in this form of recreation, generally have considerable purchasing power and above average educational status.

In Istria, diving tourism is a form of tourism that contributes to enhancing the appeal of the entire tourism offering and helps to prolong the tourist season. Istria meets all the conditions for the rapid development of this type of tourism as a result of the growing world trend of demand for diving services and the vicinity of outbound tourist markets. The abundance of the flora and fauna of the Istrian seabed, together with the region’s existing capacities (facilities and staff), are also capable of ensuring the presence and distinctiveness of Istria on the world tourist market.

To facilitate the development of diving tourism, it is necessary to resolve the issue of legislation relating to underwater activities in Croatia. As a leading destination in Croatia for tourists attracted to underwater attractions, Istria should seek to strike a balance with the environment, while developing competitiveness in the marketplace, regardless of new and less visited destinations emerging on the diving tourism market. In this way, it will equally be able to attract repeat visitors/divers, as well as the first-time ones.

²⁶ Cf. Baker, S. et al (1997). *The Politics of Sustainable Development*, London: Routledge, Also Garrod, B. and Fyall, A. (1998). *Beyond the Rhetoric of Sustainable Tourism?*, *Tourism Management*, 19 (3), pp. 199-212.

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Sažetak

PODMORJE ISTRE – PERSPEKTIVA ODRŽIVOG RAZVOJA TURIZMA

Uzlazni trend turizma Istre postoji usprkos općoj ekonomskoj recesiji emitivnih turističkih tržišta, smanjenom obimu putovanja i kraćim boravcima, povećanju cijena usluga u Istri, procesu repozicioniranja i restrukturiranja turističke ponude Istre. Shodno tome autorice u radu upozoravaju na potrebu kontinuirane suradnje javnog i privatnog sektora te sustavne implementacije Master plana razvoja turizma Istre. Rad ima za cilj ukazati na značaj razvoja održivog razvoja kako bi isti ostvario uvećane koristi za lokalnu zajednicu i kao konačni rezultat multiplikativno ostvario povećanu ekonomsku aktivnost. Autorice u radu istražuju tekuće trendove razvoja ronilačkog turizma u Istri. Istraživanje je provedeno u hotelskim kućama, pokretačima turističkog rasta i razvoja Istre, uključujući i preporuke za buduće akcijske planove. U radu su prezentirani rezultati istraživanja započetog u ožujku 2009. godine.

***Ključne riječi:** podmorje, Istra, održivi razvoj, ronilački turizam, turističko planiranje*

Dr. sc. Jasmina Gržinić
Sveučilište Jurja Dobrile u Puli
Odjel za ekonomiju i turizam
“dr. Mijo Mirković”
Preradovićeva 1
52100 Pula
Hrvatska

Mr. sc. Patricia Zanketić
Turistička zajednica Općine Kršan
Vozilići 66
52234 Plomin
Hrvatska