

BEFITTING AND DISRUPTIVE PRACTICES OF WATER-BASED TOURISM IN THE CRIȘURI MOUNTAINS

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Abstract: The Crișuri Mountains is an area of similar geographic features, nonetheless different in terms of water-based tourist consumption and production. The analysis is focused on water-based experiences in the Crișuri Mountains and their outskirts, because as it is highlighted most water-based activities are located on the rivers bordering the mountains. Along the study, the activities which can be practiced on the rivers and lakes in the area submitted for research are presented from both the perspective of the stakeholders producing and the tourists consuming this product. Further on the lakes from the Crișuri Mts. are illustrated as elementary lacustrine areas due to their basic flow of tourists and infrastructure. A focus is given to the nautical activities on the Leșu Lake which stands out as a lacustrine area which has developed along the way in uncontrolled manner, and whose unsustainable effects for the present tourists are fully sensed.

Key words: The Crișuri Mountains, water-based activities, sustainability, Leșu Lake, elementary lacustrine area

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MERGING WATER AND TOURISM

The water-based activities in the Crișuri Mountains provide a short incursion related to the possibilities rendered by the resource of rivers and lakes from the western periphery of the Apuseni Mountains, i.e. Crișuri Mountains from Romania.

The term water-based tourism has been coined by Jennings (2007, 2) and refers to the diversity in “water resources which include salt, estuarine, fresh and frozen water in their various formations” merged with tourism, sport, recreation and leisure. As the author further on states, water has a mentally healing effect on its proponents counterbalancing hard work and stress in the city and pollution from urban areas. As recreation is seen by some authors as revitalizing the spirit (Douglass, 1982), in the same perspective we can assert that water-based tourism calls for another adage from our Latin forerunners which says *mens sana in corpore sano*. The participants to water-based activities have both the possibility to train their body in participating at various activities such as sailing, rafting, kayaking, snorkelling and breathe in fresh air and therefore keep both the mind and the body in a healthy condition. Enoiu (2008) highlights the importance of ecologic tourism with implications in the field of sports and advocates the outdoor education at all levels, from kindergarten to high education institutions.

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The rivers can be an important source in the process of leisure through the sport activities which can unfold in this environment thus becoming a geographic factor with a tourist vocation. There are sportsmen or people eager to challenge their limits through the practice of rafting, kayaking or canyon-ing.

Lake tourism is another term referred to by authors such Hall and Harkonnen (2006) being represented by the lakes' potential, both natural and artificial. The lake areas, associated to some relaxing and leisure milieus, with an ecological aura above them have attracted tourists since ancient times, ever since Antiquity to the contemporary period. Places of solitary meditation, lakes often stand out as important tourist destinations according to their geographical location (Leman Lake, etc). Lakes with a tourist vocation can act in two hypostases (Lozato-Giotard, 2003): the lacustrine riviera (or the alpine model) and the elementary model. The former is associated to natural lakes and a lacustrine tourism with a long tradition benefiting of an international tourist flow as in the case of Lake Lemman, Lake Balaton, Lake Lugano whereas the latter hypostasis is associated to both natural and artificial lakes; this type being related to reduced activities and a low tourist participation. In our study we have tried to highlight the hypostasis which fits the lakes from the Munții Crișurilor Mountains.

THE CRIȘURILOR MOUNTAINS – A STARTING PREMISE FOR CONSUMPTION AND PRODUCTION

The Crișurilor Mountains (figure 1) refer to 2 similar mountain units from western Romania, the Pădurea Craiului Mountains in the north and the Munții Codru Moma Mountains in the south, separated by a golf-like depression.

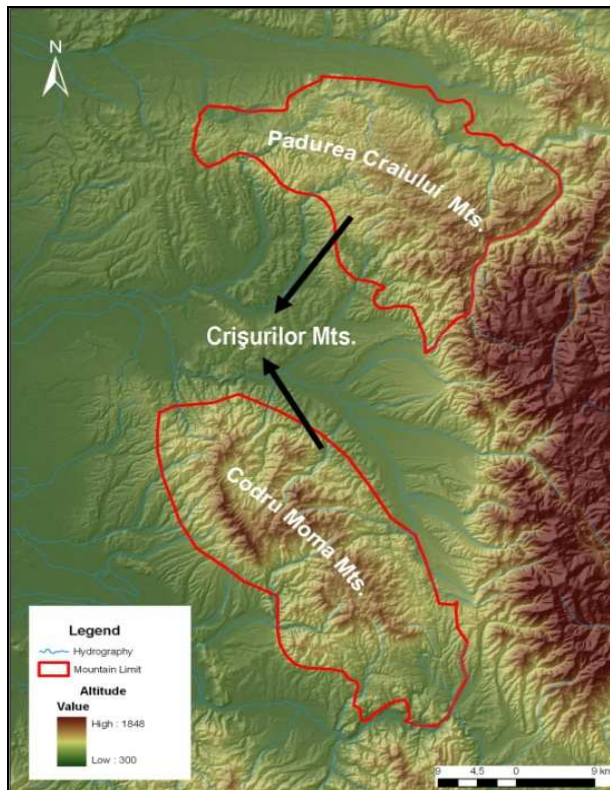


Figure 1. Location of the Munții Crișurilor Mountains, split into their two subdivisions (viz. Piatra Craiului Mts. and Codru Moma Mts.)

(Source: own elaboration based on the data basis RomaniaUTMWGS84 and Geografia României)

Both have a peninsular shape and the average altitude is of 700 - 800 m (Oancea et al, 1987). These mountain units are situated in the western part of Romania, part of the wider range of the Apuseni Mountains. They are framed by three important rivers, in the north the Crișul Repede River; the golf-like depression between the two mountain units is drained by the Crișul Negru River and north of the Codru Moma Mountains flows the Crișul Alb River. These are three important rivers which drain the western plain of Romania. Among the 3 rivers Crișul Repede River is the longest and springs at an altitude of 710 m above the sea level (Kohl, 1997).

The two mountainous units are important for water-based tourism as they are close to two major urban centres from the western part of Romania, which function as important generating sources in terms of tourists, viz. Oradea in the west¹ and Cluj², east of the Pădurea Craiului Mountains.

CONTEMPORARY AND REMOTE WATER-BASED EXPERIENCES IN THE CRIȘURILOR MOUNTAINS

Extreme sports witness their inception stage in the Crișurilor Mountains as specialized stakeholders for water-based tourism have been set up after 2007, most of them providing rafting and kayaking experiences on the rapids and soft waters of the Crișul Repede River and Crișul Pietros River under the form of whitewater descents or kayak contests both for experts and novices. Most of the water sport operators providing such a supply promote their product on the Internet, some of them aiming specifically to promote the local and regional attractions.

For the analysis of water-based tourism we have taken into consideration the water attractions inside the limits of the Crișurilor Mountains as well as the nearby water attractions and resources situated north of the Pădurea Craiului Mountains, namely the Crișul Repede River and the nearby artificial lakes. This is motivated by the fact that most of the water-based tourism actually takes place on the river due to its dramatic scenery, rugged riverbeds and gorges. The name of the river, translated in English, The Fast River provides some hints about the nature of this river thus accounting for the more daring water-based activities taking place there.

The testing of extreme sport skills is possible in the Crișuri Mountains along the Crișul Repede gorge, pigmented by a succession of gorges, sawed in limestone rocks, the most spectacular for this type of tourism being the sector between Șuncuiș and Vadu Crișului. The latter is well described by Sarkany-Kiss et al. (1997,7): “The river arrives in a limestone strait; the river is 25 -30 m wide. The river speed is high, 1,5 m/sec. Along the steeper right bank the water is deeper than 2 m. The riverbed is composed of boulders and native rock, rounding big boulders can be found only along the left bank.”

Furthermore Iada Valley, which meanwhile constitutes the limit between the Pădurea Craiului Mountains and Vlădeasa Peak, is also prone to kayaking, rafting and canyoning.

In the northern-situated mountainous unit, i.e. Pădurea Craiului Mountains, there has been installed a holiday village known as *Cooda Lacului* (the Lake's Tail), denomination given by the shape of the artificial Leșu Lake (figure 2), situated on the Iada Valley, a lake which spreads on 148 hectares³. These attributes make it prone to sailing and motor boating, jet skiing, nautical skiing, boat paddling, fishing, swimming, etc. around which it was planned an infrastructure for leisure. In its case too, the geographical factors play a major role in the development of lacustrine tourism through the spread surface of water, the natural milieu, the climatic conditions and the morphology of shorelines.

¹ The city's population counted 206.614 inhabitants at the last census of 2002 and it is a 1st rank municipality, i.e. of national importance and with potential influence at European level (<http://recensamant.referinte.transindex.ro/?pg=3&id=338> and http://ro.wikipedia.org/wiki/Municipiile_Rom%C3%A2niei)

² The city's population counted 317 953 inhabitants at the last census of 2002 and it is a 1st rank municipality, i.e. of national importance and with potential influence at European level (<http://recensamant.referinte.transindex.ro/?pg=3&id=819> and http://ro.wikipedia.org/wiki/Municipiile_Rom%C3%A2niei)

³ The water volume, accomplished through the building of a dyke (dam) is of 28,3 million cubic meter. For more information see: http://ro.wikipedia.org/wiki/Barajul_Le%C8%99u.



Figure 2. Bird's eye view from the Leșu Lake
(Source: www.welcometoromania.ro, Foto: Ham Peter)

The water-based activities on this lake are defined by slow-paced and fast-paced watercraft like ski-jets, motorboats, fishing, sailing, kayaking, etc which all take place at their own will. The watercraft equipment is provided either by guest houses owners or brought by tourists. In our opinion, the uncontrolled practice of water sports calls for the need to found a Watercraft Hobbyists' Club or Association, either state or private-owned, where all the water-based activity be regulated through specific sets of rules, as at present due to the lack of implication of the authorities there is a complete chaos, people swim in the lake, fish, go sailing, use ski jets, canoes, etc. The disturbance can have unrecoverable effects and some rules in this scope are a must, issues debated in the subsequent chapters.

In the Codru Moma Mountains, less nautical activities (boat paddling and hydro-bicycle rides) have occurred on the small artificial lake inside the Moneasa spa, being prone more to curative tourism due to the mineral and thermal waters existing there and appreciated since ancient times.

The spa boasts a long tourist tradition, when in 1835 reference was done to the good effects of the thermo-mineral waters from the Moneasa Spa. Its water attractions consists of springs with oligo-mineral and mid-thermal water (30 - 32 °C) (Măhăra, 1979) which are recommended for locomotion disabilities, peripheral nervous system and diseases of the digestive tract. The spa also boasts a small inland/in-built lacustrine area on whose water people can paddle boats and hydro-bicycles.

In the Codru Moma Mountains the lack of an abundance of natural and artificial lakes, namely of the water-based tourism atone for an enhanced thermalism, stored and valorised for cure aims in Moneasa Spa.

RIVERS AND LAKES, PLACES OF PRODUCTION AND CONSUMPTION

The lakes situated along the Crișul Repede River are mostly artificial lakes mainly used for the fuelling of hydropower. Lake Tileagd provides facilities for fishing from boats. It stretches over 6 km and is 1 km wide. Given its large array of fishes (carp, trout, pike, crucian, huck, perch) it is a paradise for anglers. Some other waterbased present activities which occur on the lake refer to windsurfing with sportsmen from Oradea, Cluj-Napoca and Debrecen (from oral interviews and personal observation). Fishing occurs under surveillance and a fishing licence is required for access (Bobeau, 2010). Lugas Lake boasts the same attributes, except for the fact that it stretches on a 5-km length, at whose tail a delta with channels and islets has been formed (Salaci, 2010). The only water-based activities taking place are bound to fishing. Lakes Bulz, Munteni and Vida are also artificial lakes, where leisure activities unfold; the latter is situated at a 300 meter altitude and stretches over 8 ha.

Since these lakes were initially used exclusively for economic reasons, very scarce information can be found in the literature about their recent leisure water-based activities.

The river and lacustrine attractions along with their inherent activities are dotted on the map in the study area, i.e. the Crișuri Mountains as well as the attractions in their proximity (figure 3). As tourism has the reputation of being an experiential industry (Cooper and Hall, 2008), in the case of our study area as well as in its proximity, both novices and experts can live fully the experiences of extreme sport (kayaking, whitewater rafting) and less extreme as fishing, sail boating and swimming.

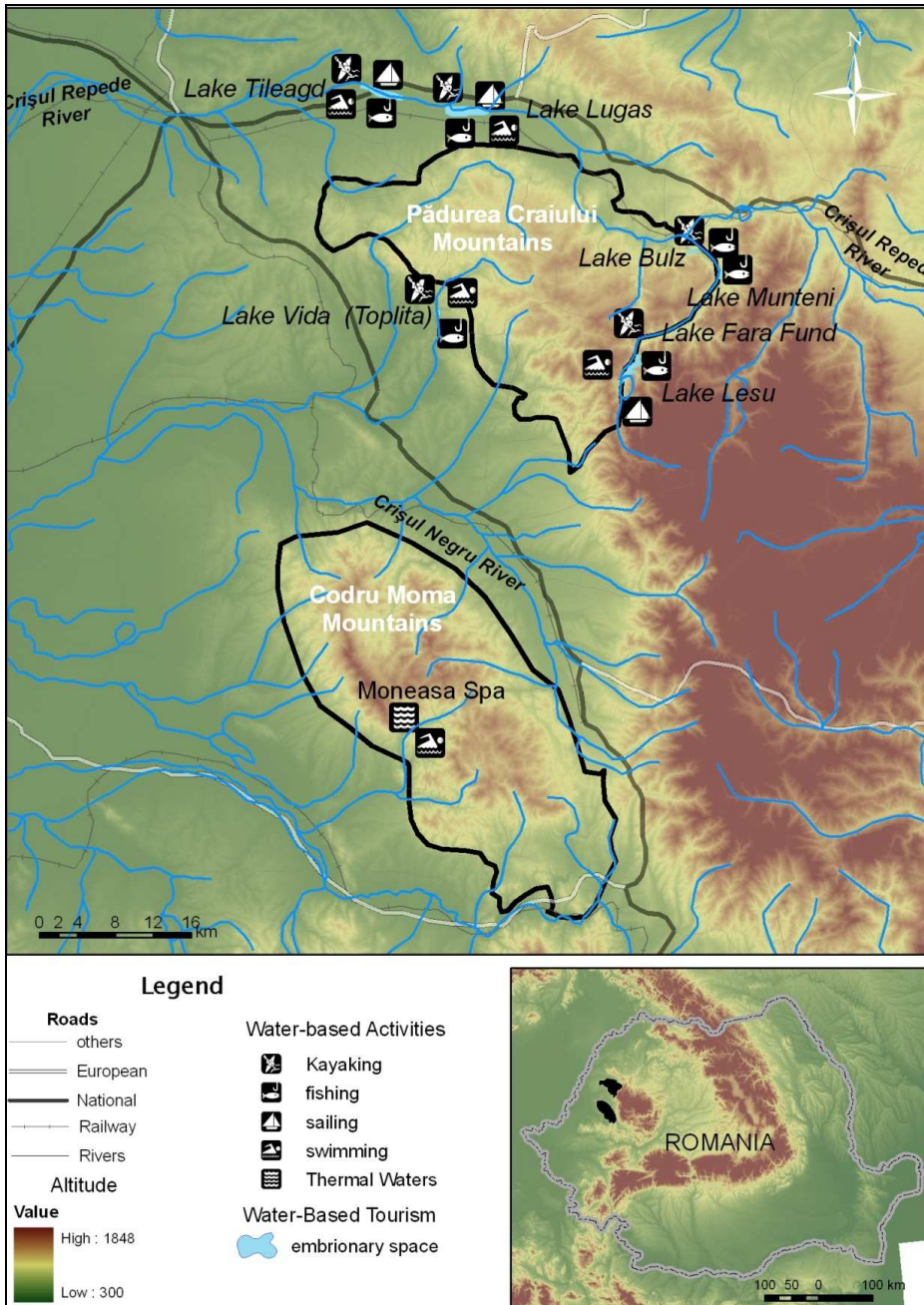


Figure 3. Lake and river potential of the Crișuri Mountains and its generated activities (Source: own elaboration based on the data basis RomaniaUTMWGS84)

For the ones eager to feel the rush of adrenaline in their veins, kayaking and rafting would be an option, practicable on the rush waters (rapids) and straits of the Crișul Repede River and its tributary, viz. Valea Iadei, under the form of wilderness whitewater descents. Canoes have evolved from economic and transportation devices to objects being used for recreation, sport and tourism (Hudson and Beedie, 2007). Kayaking has an Inuit origin, the canoes representing "an enclosed boat paddled from a sitting position with a double-bladed paddle" (Hudson and Beedie, 2007, 171). According to the same authors, there are more trends in kayaking referring to an exploratory or journeying dimension across a range of water environments, a second one refers to the kayak's design and manufacture, a third one refers to the evolution of rules, regulations and structures which have established kayaking as sport, recreation and tourism and a last trend relates to paddling environments (usually on artificial water courses).

In the case of the Crișuri Mountains we can refer to the first trend being applied as it takes the shape of an exploratory and journeying dimension, i.e. whitewater descents on the dramatic rapids of the Crișul Repede River and the Crișul Pietros River; canoe contests on its soft waters; all activities taking place on natural water courses.

After a short Internet survey we have come across more stakeholders focused directly or tangentially on water-based tourism in the Crișuri Mountains, i.e. Protrekking, Outdoor4U, XTours, Extreme Zone Adventure as well as more travel agencies dealing with the same issue. Most of these specialized firms were set up quite recently, namely after 2000 (*Outdoor4U* set up in 2003 but only in 2008 actually organize water-based activities, *Extreme Zone Adventure* in 2007, *Protrekking* in 2007) which indicates the fact that water-based tourism is extremely recent in the study area, we could even assert witnessing its debut in the business. A few stakeholders were listed below, as players directly involved and providing water-based experiences to outdoor tourists in the area submitted for analysis.

X-Tours⁴ organizes one day rafting trip on the Crișul Repede River for beginners on its less rugged course and for experts on the Crișul Pietros River (route Beiuș-Pietroasa), a river whose rating scale ranges between II to IV, namely from medium to very difficult (viz. "long rapids, powerful and irregular waves, rocks, eddies, rapids with clear passage through narrows, requiring expertise in manoeuvring" – Jonas, 2007, 156).

The firm Outdoor4U⁵ organizes specialised camps for youths who enjoy nature and outdoor activities with all the specialized personnel, equipment and regulations. As far as water-based tourism in the Crișuri Mountains is concerned they organize rafting activities on the course of the Crișul Repede river between Bucea-Vadu Crișului on a 27 km stretch, the rapids rating scale is of 2/3 and on the Crișul Pietros River (the sector Între Ape-Pietroasa) on a 8 km stretch, the rapids' rating scale is of 4/4. Jonas (2007, 156) has illustrated such a list of rapids rating. In the case of the study area, the rapid rating scale 2/3 refers to "an easy course, with small waves, clear passage and no serious obstacles" whereas the 4/4 rating scale refers to "a medium course with rapids of moderate difficulty".

Another firm interested to promote regional and local tourism organizes kayaking activities on the Crișul Repede River (one course on the Crișul Repede Gorge; one course from Șuncuiuș-Vadu Crișului; Bratca-Vadu Crișului; Bulz-Vadu Crișului) and on the Crișul Pietros River (from Boga to Pietroasa) is Extreme Zone Adventure. Rafting also occurs on the Crișul Repede River on its most spectacular sectors on approximately 30 km⁶.

The firm Protrekking also provides rafting on the Crișul Repede River between the localities Bulz-Vadu Crisului on a length of 20 km and difficulty level 1-2+ (easy, small waves, clear passage, no serious obstacles) with a start point from Stâna de Vale or canoe contest on the Crișul Repede River. The tourists are organized accompanied by guides and monitors; in terms of

⁴ More information can be found on the website: <http://rafting.x-tours.ro/rafting-de-o-zi-pe-crisul-repede>; <http://rafting.x-tours.ro/rafting-pe-crisul-pietros>

⁵ More information can be found on the website: <http://www.taberecopii.ro/programe.php>

⁶ More information can be found on the website: <http://www.isic-romania.ro/sport-extreme-zone-adventure>

infrastructure it is used the rafting canoes (trekk) for 2+3 persons or rafting boats for 6 persons. Furthermore in the same study area more difficult tours are organized upstream from Pietroasa village, from the confluence of the Galbena River with Crișul Pietros River⁷.

As it can be noticed the trips and tours listed above provide water-based activities on the same rivers, i.e. Crișul Repede and Crișul Pietros, an understood thing as it is fragmented by spectacular scenery and rugged riverbeds, but in our opinion this water-based supply could also be extended to another less explored river from this area, viz. Crișul Negru River. In the village Borz along the aforementioned river, it narrows into a strait with spectacular scenery. The water-based tourism could be also combined with some halts to heritage sites, such as the watermills located along the riverbank.

Another popular water-based activity is sailing, which took the shape of a recreational experience first in 1720 when the first sailing club was set up in Cork (Jennings, 2007).

Motorboat and sailing is a water-based activity which mostly takes place on the artificial Lake Leșu. This activity occurs in an unplanned manner mainly due to the local authorities' lack of implication. The appropriate premises should be created for all participants at water-based activities so that the attraction does not become a destruction target but an attraction one for the future generations too. This lake is a reward for the tourists who seek freedom, challenge and adventure, mere delight and fulfilment (Jennings, 2007) when sailing on his/her yacht, or for the sensation seekers and ecotourists paddling their canoes on the lake, for the anglers fishing for sport motivated by the need for esteem and ego enhancement (Killion, 2007) or for the anglers fishing for mere sustenance and food as well as for the swimmer's desire to relax by training his/her body and breathe fresh air in a healthy environment. Some regulated activity refers to fishing on the Tileagd and Lugaș artificial lakes; such a scarce output of water-based experiences probably also resides in the fact that it can be reached only by boat.

A binder between all participants at water-based tourism emerges as compulsory, probably under the form of a private or public club or association. A connector between the private entrepreneurs unfolding their activity in tourism and the public sector is needed to grant some authorisations for the practice of nautical activities on the lakes.

ELEMENTARY/EMBRYO/DISCONTINUOUS LACUSTRINE TOURISM IN THE CRIȘURI MOUNTAINS

Lozato-Giotard (2003, 123) refers to the small artificial lakes as corresponding to the leisure lacustrine elementary or embryo model. These lakes are often created by the need of energy resources, also sought by water-based tourists. The water surface represents the main attraction pole for the bordering communes. Its attributes relate to 'an artificial water surface, bordering communes, transitory tourist flow (foreigners), national tourist flow, leisure flow of proximity, water sports, camping, secondary residences, green tourism.

Applied to the study area, i.e. the Crișuri Mountains, we can refer to an elementary embryo lacustrine tourism as most are artificial lakes - Tileagd, Lugaș, Bulz, Munteni, Vida and natural karst lakes, i.e. Tăul Bătrân and Tăul Nieșului with tourists coming from bordering localities and a low infrastructure for leisure. Most activities practiced here relate to fishing, boat paddling and swimming.

Despite the absence of a properly tourist planned infrastructure, the artificial lakes dotted along the Crișul Repede river can be seen from the angle of polyvalent areas, where even the lack of a tourist planning can atone for many possibilities to recreate (boat paddling, fishing, swimming, kayaking) into the open air if there are proper regulations in force. In our opinion, the more basic the planning of a lake the more attractive for ecotourists, thus keeping in line with the sustainability laws. As the lakes in the study area are owned by the state, the local authorities should also involve by enforcing a minimum of regulations (markings, sign posts, corridors for different sport and leisure activities on the lakes and nearby, fees for access, etc).

⁷ More information can be found on the website: <http://www.outdoorexperience.ro/Crisul-repede.html>; <http://www.outdoorexperience.ro/Rafting-Crisul-Pietros-cel-mai-tehnic-rau-din-Apuseni.html>

The lacustrine area Leșu Lake stands out from the picture as the area already displays a tourist infrastructure given by the present accommodation units (mostly guest houses, chalets and camping sites), the entertainment possibilities and the water-based activities. All this infrastructure has been built over a period of 10 years, when the only settlement resided of a peasant's residence, forestry canton and shepherds' sheds⁸. The nice mountainous setting (700 m altitude), road access, booming accommodation infrastructure, present water-based activities (yet unplanned and uncontrolled) prompt us to classify this lake as an intermediary case between the embryo model and the lacustrine riviera. The reduced water-based activities practicable on the small artificial lake inside Moneasa Spa from the Codru Moma Mountains as well as the lake's reduced dimension confers it the status of an embryo lacustrine area.

SUSTAINABILITY

Romania has established a strategy for the development of tourism 2007-2026, elaborated by the World Tourism Organisation along with their counterparts in the name of the Romanian Government, where both the strengths and the shortcomings of this sector are laid out as well as future directions (Master Planul pentru Dezvoltarea Turismului Național 2007 - 2026).

Some of the shortcomings debated referred to a lack of collaboration between the public and the private sectors, an observation which also holds true for the study area submitted for analysis. The unplanned and even unauthorized water-based activities (practice of jet-skiing, powered boating, water bikes and non-motorized like fishing, kayaking, boat paddling) which take place on the 148 hectares' lake, viz. Leșu Lake notoriously call for an intervention and authorisation from the public authorities aiming to regulate this shortcoming. Since it is a state-owned lake, the public authorities need to enforce laws both for individual tourists and the private stakeholders who develop nautical-oriented business on the lakes in the study area as well as to find paths for collaboration with the latter. Furthermore the economic impact is reduced for the local community and water sports operators as most tourists use their personal watercraft. If a large array of watercraft would be available on site, along with specific and unitary rules for its usage, water-based activities could unfold properly along with enhanced revenues for the locals. The lack of rules for speed limit of motorized watercraft, fishing licence, noise, water pollution have a destructive environmental impact.

As highlighted by Richins (2007) the usage of motorized water craft has a direct physical stress on aquatic organisms. The jet-generated turbulence has indicated that fish eggs and larvae are highly affected. Szito and Mozes (1997) draw attention on the pollution indicators of the Crișul Repede River through the presence of Oligochaeta and Chironomid fauna. The former specimen's increasing density showed organic water pollution.

Noise is another disturbing factor, as it can affect the waterfowl and other bird life which in its turn has a negative impact on feeding, nesting and breeding. This would be to the detriment of a striking richness of the avifauna along the Crișul Repede River as it counts approximately 180 species, among which on the upper reach some alpine species *Nucifraga caryocatactes*, *Cinclus cinclus*, *Parus ater*, *Cerhia familiaris*, etc. In the Vadu Crișului ravine, native species can also be encountered, viz. *Tringa hypoleucos* and *Bubo bubo* (Kohl, 1997).

The increased turbidity of water can reduce the diversity and extent of water-bottom vegetation. Vegetation is most affected in the case of swamps and ponds, places where most aquatic phytocenosis takes place, "the aquatic plants preferring mainly the still or very slowly flowing waters" (Drăgulescu and Makalik, 1997, 75). Hence increased attention should be attributed to the lakes and swamps such as Lake Leșu, Lake Munteni, Lake Bulz, Lake Tileagd and Lake Lugaș in terms of the vegetation protection due to the fact that more species are on the verge of extinction. Drăgulescu and Makalik (1997) conducted researches along Crișul Repede River showing that many species are endangered, i.e. 40 paludal species.

⁸ For more information on this issue, see <http://www.turismland.ro/satul-de-vacanta-coada-lacului-lesu>

The boat engine emissions and spills are also detrimental, although in low quantities, it can affect biodiversity on the long run. Another drawback is the erosion of shorelines and vegetation. Richins (2007) provides examples of how to counterbalance the destructive practices of water sports, so that all the participants (tourists, water sports operators, local authorities, residents, fishing participants) involved in this activity be satisfied⁹. Other examples of how to tackle the issues of sustainable tourism planning in marine environments are also provided by Marafa (2008) as well as examples of unsustainable tourism in the same environments referring to the fragility of marine ecosystems are provided by Dehoorne et Saffache (2008). In the same regard, Ioannides (1995) points out that tourists are not the only players to blame in this process of resource depletion as are the authorities which allow it by their indifference translated through the lack of plans and policies. Such is also the case of the Leșu Lake formerly debated and associated with disruptive water-based tourism. In its case we would propose a basic water planning with immediate results. A first step would be for the local authorities to decide whether to advocate or prohibit the motorized watercraft. In the case of their advocacy we would propose one corridor for fast- and low-paced watercraft away from the shoreline, so that the noise pollution be as limited as possible, with specific markings for speed limit. Furthermore we would propose another corridor nearby for kayakers. A recreational area would come as proper for the genuine ecotourists, viz. the participants at swimming and fishing and another last circled area for sailing. We deem that these minimal interventions would decrease the present-state disorganisation of water-based tourism on the lake (i.e. Leșu Lake) contributing to its maintenance on the long term and thus turn it into a befitting example of water-based tourism for the other lakes in the area (Tileagd, Lugaș, Munteni, Vida) where water sports are no so intrusive and pervasive yet. Kayaking and rafting which mostly occurs on the Crișul Repede Valley and Crișul Pietros River prove to be befitting practices as they usually take place into less populated areas therefore not impeding either the local population or ecosystem as they are non-motorized.

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⁹ The case study refers to the Folkstone Marine Park and Reserve in Barbados, where in order to avoid conflict between the players involved in water-based tourism, it has been created a scientific area used for research, from where motorized watercraft has been banned; two separate corridors for fast-paced watercraft and an area for recreational usage where there are no restrictions for watercraft;

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