

## **The Model of Agro-Ecological Tourism Development**

The members of The United Nations (EU) are abiding to the quotes of agricultural production, which is centrally determined for all EU members. Those are principles of the new way of approach to agricultural economy. This points us the need for changes in the way of agricultural production in our country, and in the world, as well. We no longer have to aim towards records in agricultural production.

All surfaces that produce agricultural products which are treated as a surplus would be left empty. The production losses of agricultural economies should be redeemed. This redeeming should be carried out on state level. The plans and the control of agricultural production and as the donation as well should be carried out by The Ministry of Agriculture.

It can be concluded from the above facts that a new, different content should be found for the surpluses of agricultural soils and surfaces.

Small economies are going to survive more difficult. The normal agricultural functioning is impossible, or very difficult according to Western European standards for economies which have smaller surfaces than 30 ha, because they can only survive with donations.

Private agricultural economies in Serbia were limited to the size of at most 10 ha of agricultural surface. Small economies need to change the structure of their economies by the introduction of the following items of economy and methods of production:

1. Extensive agricultural production: the repeated use of older methods of production with the possibility of introducing of the organic agricultural production;
2. Tourism, eco-tourism, agro-eco tourism and countryside tourism;
3. A different way of using of agrarian, natural and ethnographic possibilities of area and regions.

We should use the possibilities that the tourism gives us, with the respect and preservation of the specifics of some regions, to develop the areas in the country, and on the territory of Vojvodina, as well. Today, the tourism is a branch of the economy with the greatest level of development. The tourism is divided into the following categories: vacation-shopping-education (getting to know the characteristics of new areas). An occurrence of the fourth category of tourism-the sports tourism, is being expected in 2020.

The beginning of this new approach of the use of the surfaces is present on the territory of Subotica city. A joint presentation of the protected areas has been organized, an education about the new method of life on the protected natural goods, with a retrospective view of the inclusion of local population of above mentioned areas, into these activities. There is a great possibility on our grounds for the development of agro-ecologic tourism, which can be concluded by observing the chart of surfacing waters in Vojvodina and the chart forest-grounds in Vojvodina.

The agro-ecological tourism should be started in villages which are located on ad beside protected natural goods, and as well as in natural, beautiful and interesting places and agricultural farms. The people who are interested can carry out this job on their own, but in order to succeed they must hire experts. For this kind of economics it's necessary to set goals, to calculate one's resources and to make a financial plan. The goals of doing business and the calculation of outer resources are defined within the financial plan, which is important to make before approaching the development of agro-ecological tourism. The most important components of the financial plan are personal evaluation, setting of goals of business, the calculation of inner and outer resources and the financial image of the job. This kind of tourism makes the production and the consumption of agricultural goods possible in the same time. The quality of the complete service depends on the skills of the service giver and on the group of visitors and the presented micro environment. The quality of given services depends on the group of smaller parameters, and the whole dynamic of these is different from case to case. Semi-governmental organizations are of great importance in the development of this kind of tourism. Semi-governmental organizations can be very helpful on this plan trough a creation of an ecological awareness, and trough presenting their own good examples on this matter. The European Union points out the successful functioning of semi-governmental organizations in the area of education, the innovative approach to various activities, and in the protection of the environment. These semi-governmental organizations can be aligned into three groups:

- Thematic associations - they are dealing with the problems of the traffic, air protection, consumption, packaging trends and trends of reducing waste;
- Regional associations - they are dealing with the problems of the region, in full or partially
- Local associations – are local groups which are dealing with ecological education, the development and embellishment of the area, preservation and taking care of the nature, of animals and birds.

The area of activities of semi-governmental organizations is organizing various actions which have a goal to protect the environment, to organize the work of informational centers, ecological education, eco camps, courses in the nature, and the work ecological groups with various goals concerning the nature, organizing manifestations on significant dates of environment, as well as the creation and handing out of educative material.

It's very important to use all the possibilities that the tourism gives for the development of the village tourism.

Today, the tourism is a branch of economy with the greatest level of development. One of the aspects of the extensive method of agricultural production is the organic agricultural production. The "Teras" organization from Subotica and "Eco Network" from Novi Sad are the most organized members of organic economy on the territory of Vojvodina. The organic agricultural production and the modification of products is carried out by IFOAM international principles through the work of "Teras" association.

The organic production and modification of products isn't widely accepted, which can be seen in the gross percentage statement of organic agricultural production within some members of the EU.

The organic agricultural production is applied to the surface of 5.682.415 ha through the example of Austria, Italy, Sweden, Greece and Germany. This shows only 3.44% of the total of the cultivated agricultural surface, and 1, 5% of registered agricultural farms.

The organizations which take care of the protection of the preservation of natural goods have the assignment to find a way of communication with the population of the protected areas, so they could be involved in the preservation of this area, and to hold out services to visitors of these natural goods. A way of engaging of local population, as well as a way to divide the utility from the use of the possibilities of the given area should be found.

There is a great possibility of development of agro-ecological tourism in our country, which can be concluded from the observation of the chart of surface waters of Vojvodina, as well as the chart of forests and forest-grounds in Vojvodina.

### **The Model of Agro-Ecological Tourism Development in Northern Backa**

There are four protected goods so far in the town of Subotica, in Northern Backa:

- Lake Ludas – A special natural reserve
- Subotica Sand-pit – An area of exquisite characteristics
- The Selevenj Desert – A special reserve of nature
- Palic – A natural park

The protected area is 7 606 ha, and the area of protective zones is 6 817 ha, which is 15% of the whole territory of Subotica. The economy on these protected natural goods is carried out by the "Palic-Ludas" public communal organization. There is an international cooperation on this area due to the protected areas on both sides of the national border. The protected goods of the "Subotica Sand-pit" and the "The Selevenj Desert" are situated in the borderline between Serbia and Hungary. The area on the Hungarian territory is also under state protection. The small lake Keres which originates from Hungary discharges into Ludas Lake. The "Palic-Ludas" public communal organization has contested in a companionship with a similar organization from Hungary for a donation of international means, due to

the above mentioned specific geographical characteristics. The means have been assigned to these organizations on the international open competition for development and services concerning natural goods, INTERREG (2000-2006), on the basis of their applied project about the preservation and the use of natural goods. Both sides control the works in the Ludas Lake area. A visitors' centre is being built from the gotten means, at Ludas lake shore, near village Hajdukovo, which has the purpose to welcome organized groups of visitors of above mentioned goods. A complex, multifunctional structure (an exposition area, an ecological study room, a hostel for researchers, rooms for guards and staff) is being built at the moment. The goal is to welcome the visitors, to introduce to the values of protected places, and to organize dwelling in the presence of a guide in all four natural goods.

All conditions for economy on the natural goods would be fulfilled in this way, for organizing extensive methods of agricultural economy with allowed activities on natural goods.

### **1. Lake Ludas – A Special Nature Reserve**

The Lake Ludas reserve involves only the lake and the shore by Ludas/Supljak, Hajdukovo and Nosa lodgment. There are preserved cultural values (archeological emplacements village and church architecture, traditional art), and not only preserved natural values (lots of fish, bird and plant sorts typical for pond systems). The beauty of the view with high rattans is a special value of this Reserve.

#### **Natural values**

The Ludas lake is a complex of moist habitats which contain open water surfaces, rattans and lots of different unities (moist, prairie-like, pan plains).

The prairie lake Ludas is a complex whose size is 328 ha, and is a unique one in Serbia. Its shallow vat was form by the work of winds which touches the sand-pit and plateau. Different kinds of soil and the nearness of underground water form an area of mosaic-like type, a great biological diversity within a small area. Lake Ludas was regionally well-known in the last century for a rich fauna of birds. Today, it's an important place for the rest and feeding on the eastern migration route of birds. Regular migration researches (stationeries for placing rings) have been organized since 1985. Not only birds are placed among rarities of this area, but other animals like the otter, turtles, rare insects and rare plants (pond orchids) as well, which are included in the Red Book of Serbia. The lake Ludas special reserve of nature has a status of protection in the present form since 1994, but a part of lake has been under protection since 1955. The reserve has 847 ha + 2002 ha of protected zone according to the new Directive from 2006. It adheres under the 1<sup>st</sup> category of protection as a natural good which has a great importance for the Republic. The reserve has an outstanding international importance. The lake is introduced to the list of Ramsar areas in 1977(pond areas with large importance in the world), and it is a part of IBA area, within the larger area-Subotica lakes and sand-pits.

#### **Cultural values**

The area around the lake has been habituated in the Stone Age, and the archeological arts on the east shore by Nosa prove this, and it has been habituated in various historical periods afterwards. The present population of surrounding villages originates from the inhabitants from the 19<sup>th</sup> century from the neighborhood of the town which is today called Szeged. There is still lot of old ranches around the lake today with preserved traditional architecture, with rattan roofs, assistant buildings from platter and mud, and here and there an old tool. The Catholic Church and the Parish on Ludas shore is also considered valuable monuments of culture.

### **Ecological education**

The purpose of these nature seminars is the possibility of direct experience of natural scenario, and a special educational track is placed on Lake Ludas because of this. The visitor can meet a few natural habitats (the lake, the rattans, the plains, the pan, the prairie) during the stroll down this track in a company of a professional guide, and has a possibility to observe their lively world.

And eco-camp is traditionally held on Ludos during the summer since 1987. The task of this camp is education in the nature, parallel with different natural and ethnological researches. While younger camper discover the nature by touring the surrounding and doing various exercises, the high school and college students help in the research work.

### **The Touristic Offer**

Is synchronized with the status of the reserve, so the visitors can visit Ludas at the “Sunyog csarda” restaurant from where the view of the lake is magnificent, and they can enjoy fish and other specialties of this area. There is a traditional fish-stew cooking held in July.

## **2. Subotica Sand-pit**

The Subotica sand-pit is located on the North of Backa, just by the border between Serbia and Hungary, in the area of Subotica-Horgos sand-pit. The southern border of the protected natural good is the edging area of urban zones of Kelebija, Subotica, Palic, Hajdukovo and Backi Vinogradi villages.

This area has a forest-prairie characteristic, with forest areas which mostly have an anthropogenic origin. The natural value is determined by the character and the mosaic of the habitat, among which the sand-pit, the prairie and the pond give a basic meaning to the high level of the biodiversity of the ecosystem. The moist habitats formed on the soil of vale sand in the valley of the small river Kires are the most important, and they are among the most endangered habitats in Europe and in the world.

### **Natural values**

The preserved fragments of the natural vegetation in the area of Subotica sand-pit are valuable proofs of the plant cover of the Pannon vale in the past.

The remains of the various original plant groups of almost all types of vegetation which are typical for Vojvodina, which inhabit a rather limited area with various types of plants have a great scientific importance – they are specific symbol, and a natural value of the region.

A relict forest-prairie plant – the saffron (*Bulbocodium versicolor*), which is a synonym for the flora of the Subotica sand-pit, must be mentioned here, because this plant can only be found in this sand-pit in whole Vojvodina and Serbia.

A great number of amphibians, and an occurrence of a typical fauna of reptiles conditioned by the specifics of the Subotica-Horgos sand-pit, has been registered by favor of pond and bog ecosystems, which represent migration and multiplying centers.

There are 170 bird species, which is a result of various habitats and long, detailed researches (IBA).

A presence of a rare specie of a rodent-the blind dog(*Spalax leucodon*) is marked. This animal spends its life under the ground, in hallway systems, in search for food-grass roots, rhizomes, etc. This specie was very spread around in Vojvodina 100 years ago, but its habitat shrunk due to the transformation of the sand-pits to agrobiocenoses.

The Subotica sand-pit, an area of great characteristics has been protected since 2003, and it's introduced into the 2<sup>nd</sup> category of protection as a natural good of a great importance. An area of 2773ha+5370 ha is protected.

### **Cultural values**

The space has partially preserved its original areal characteristics which came to life with an interaction of the human factor and the nature, and in its surrounding kept some forms of traditional economy and life, but only homes with elderly people remained in this area, and the economy came down only to satisfying one's own needs.

There are a few buildings, so called desert schools, which were built before World War 1, with the typical architecture of the Austro-Hungarian period, and they should have a special treatment.

### **The Touristic Offer**

It is planned that a touristic offer of protected natural goods will be presented, which would be base on natural motives given by the area:

- Countryside tourism
- Eco tourism
- Organized recreation in the nature-seminars in the nature

There already are a few famous picnic spots on Majdan, Kelebija forrest and the lake moss.

### **3. The Selevenj Prairie- A Special Natural Reserve**

The Selevenj prairies are situated between Backi vinogradi and Horgos. The reserve consists of 10 areas of preserved natural values (rare plant and animal sorts of moist, sand-pit, pan and prairie-like plains) which are spread among orchards, acres and vineyards like a mosaic.

### **Natural Values**

The area is situated by the border of Subotica-Horgos sand-pit and the Backa les plate. It belongs to an area of connected biodiversity, as a border zone of two geographic areas. The nearness of underground water which creates bogs and pans on the wavy terrain near extremely dry sand-pit habitats additionally enhances the diversity. It stands out with its floral values, among which are very attractive sorts from orchid and iris families. The reserve is the only habitat in our country, or one of the rare habitats (22 sorts are protected by law, and 14 are

considered endangered by international rules and are protected in the neighboring countries) for some floral types. As for animal species, there are some sorts of international values, among which are the pond frog, the sand-pit lizard, bats and some rare nesting birds in the pan and in the Selevenj wood.

The reserve of the Selevenj prairie belongs to the 2<sup>nd</sup> category of protection which has a great meaning for the republic. The protected zone is 677 ha + 1173 ha. It has been protected since 1997. It consists of 10 areas whose size is from 10 ha to 100 ha, and only two of these areas are meeting each other. The rest of these areas are separated with cultivable soil and roads. There is a Selevenj wood within this area, with a surface of 90 ha, and the rest of the reserve consists of pan and moist plains with fragments of prairie vegetation.

### **Cultural values**

The area of the reserve consists of fragments of a prairie with cultivated areas of orchards and acres between two villages. This prairie-like landscape hasn't been urbanized once, except for a country house and a grange here and there and there was only one restaurant- a village restaurant in the Selevenj wood, which is occasionally opened for visitors.

There are some archeological excavations, and a medieval church, Templompart was discovered while building the highway.

This traditionally was a vineyard area which was using the climate and geographical advantages of the sand-pit soil, but there are more orchards today. Apples, pears, peaches and apricots are mostly cultivated, but viniculture more and more popular, as the production of old vines like "kadarka" and "kevedinka" as well.

Cattle-rising was once a tradition in the sand-pit, but there isn't much left of it today, and a building of a country house is planned due to this, where traditional cattle like Podol beef, Mangulica pigs and Cigaja sheep would be raised, and they would feed on the prairie and pan plains.

### **Ecological education**

The strolling path is marked all through the Selevenj forest, and it leads the visitors to the most interesting areas because passing through the Reserve is forbidden outside of the paths and roads. A stroll in the company of a guide-renger will offer detailed information about season advents.

A future educative path is also built and it should bring the specific natural values of the Selevenj prairie closer.

### **The Touristic Offer**

Mayday picnics are traditionally held in the Selevenj forest on limited picnic and camping areas, because courses through the Reserve are forbidden.

An open fire can only be burnt in the yard of the village restaurant.

## **4. Palic – A Park of Nature**

The park of nature, Palic includes the lake Palic and the Palic lodgment. It has great natural values( lake Palic, a park and three monumental trees), cultural

values ( The Great Park, lots of buildings with architectural values, The Palic Villa), and lots of other traditions of baths and places for vacation.

### **Natural values**

Lake Palic is a shallow, vale lake, 5, 5 km long. It's well known for its bird islands where pond birds are nesting. The colonies of seagulls and aigrettes are the loudest. The black headed seagull (*Larus melanocephalus*) started nesting on these islands a few years ago, and this is the only place in our country where he's nesting at the moment. One of the rare, protected mammals are the otter and bats. The Great Park was founded in 1840, and it's a valuable place from a horticultural point of view. It's an important habitat of forest animals, most of which are birds.

### **Cultural values**

The building in Palic started in the 2<sup>nd</sup> half of the 19<sup>th</sup> century, when few buildings were like: the bath (warm bath, hotel, typical summer vacation villas) were built. The town of Subotica posted an open competition in 1904 for the building of a bath in Palic, and the goal of this open competition was to build the same baths in Palic as the other Austrian-Hungarian baths. Architects from Budapest, Jakob Dezso and Komor Marcell made a plan for this project in secession style, but adjusted to the national style. The new objects were: The Water Tower, The Grand Balcony, The Musical Pavilion, The Female Bath, a restaurant, a coffee shop, a bakery, a tennis court, bowling alley, buildings where water treatment were done, a new hotel with a few stores, etc. These buildings were finished and opened in 1912.

A Summer Theater was built in 1950 in harmony with the landscape, which is remembered by the International Film Festival and Palic Summer Nights.

### **Sports traditions**

A sports ace, Lajos Vermes who organized internationally important sports games since 1880, The Palic Sports Games which had the character of the Olympics, played an important role in the development of the bath. He built a sports complex, a bicycle track, The Lujza villa, The Bagoljvar villa and the first summer stage. This tradition of Palic sports games still lasts today.

### **The Touristic Offer**

in Palic is extremely rich: sports courts, tennis fields, the summer stage, the congress center, various manifestations throughout the whole year.

There are 5 hotels and private hostels as well. The wide surrounding of Palic gives the possibility to hunt, fish, to ride horses and to visit natural reserves.

### **Literature**

1. Dr Ognjen Bakic(2002): The Marketing Management of Touristic Destinations, Economic facultyof Belgrade, Belgrade
2. Megan Epler Wood (2002): Ecotourism, The Centre for a Responsible Development of Tourims(CenORT), Belgrade,

3. Dr Jovan Popesku, (2001): Responsible and Keeping Development of Tourism ( CenORT), Belgrade
4. JKP "Palic-Ludas" web page