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**Ecological Park
at the Banks of the Backwaters of the River Tisza
in Tizsakécske**

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April 2003

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*“Nature is huge, man is little.
Therefore men’s existence depends on the
relationship he is able to create with the nature,
his understanding of nature and his ability to
use nature’s power for his own benefits.”*

Albert Szent-Györgyi

One special concern of the manifold, global challenge of environmental protection is the protection of nature, which is a subset of environmental protection.

Society has an obligation to protect and preserve important wild habitats. Achieving any level of success means incorporating modern ecological approaches into wide stratum of society.

One aspect of environment protection is the protection of species, which signifies the country-wide protection of a species (eg. sakeret). The other aspect is the protection of areas. The protected areas can be classified as:

- a nature protection area
- a nature reserve
- a national park

The original characteristics of our ancient landscape are constantly changing, in great part due to cultural and societal influences as well as decisions made by local water districts/authorities. The forest-steppe-landscape disappeared simultaneously with the continued advances made by human society. Fulfilling the growing demands made on the natural world does not exclude the preservation of smaller or larger areas, small parts of remaining original landscapes and the many species of the flora and fauna. Preserving lasting remnants of our ancient landscapes is a demand of current society and an obligation to future societies as well.

The idea to establish an ecological park at the backwater of the Tisza is a result of these beliefs.

I. Presentation of Hungary and Tisza-Écske

Hungary is located in the heart of Europe in the Carpathian Basin. At first sight it seems to be a plain, steppe-landscape with various hilly regions. The Great Hungarian Plain is an area with plenty of water and which is criss-crossed by rivers originating in the Carpathian Mountains. The country’s total area covers 93.036 km², with a population of 10,310,000. In comparison New York City has a population of 18,087,000. The Hungarian national flag is a red – white – green tricolor. Its capital is Budapest which offers many interesting sights for tourists, for example Margaret’s Island, Parliament, the many bridges over the Danube, and Castle Hill. The country’s administration is divided into 19 counties.

After the Second World War Hungary was a part of the communist block and was separated from Western Europe. 1989, the year of political change, is a landmark in the history of our country. In this year Russian troops left Hungary, the Iron Curtain was torn down and the country opened to Western Europe and the developed world. These changes are perceptible in tourism, too.

In 1980 14.000.000 foreigners came to Hungary, by 1990 this figure had multiplied to three times that.

TiszaKécske is a small town in Hungary, located in the north-eastern part of Bács-Kiskun County, situated approximately halfway down the River Tisza and in one of the river's largest bends. The town has a population of 12,300. The economy relies on the hospitality and tourism industries as well as agriculture and industry. The biggest attraction of TiszaKécske is the River Tisza offering excellent possibilities for recreation and relaxation. In addition to the Tisza we should take note the natural attraction of the Tisza backwaters in TiszaKécske.

II. Presentation of the Tisza Backwaters



The backwaters in TiszaKécske are located in the south of the township, in an area between the town and the River Tisza. The origin of the backwater was a natural separation from the river more than 200 years ago.

The backwater was formed when governmental regulation altered the ancient flow of the river causing the area to flood. With the construction of the Tisza flood control dike system the danger of flooding grew, because the river had lost its capability of dealing with flood waters through a natural system of reservoirs and absorption. It was the reason for integrating the Tisza backwater in the flood protection system, using its water storage capacity.

Because of the present environmental state of the backwater it is urgent that a comprehensive renewal and preservation plan be developed. During the renewal process it is necessary to take into account forward-thinking proposals:

- for the preservation of some of the area's best scenery, plants, and wildlife
- for the preservation and improvement of water quality in the backwater
- for the preservation of the landscape and soil
- for the utilization of natural resources

It is important to slow the natural processes endangering the survival and preservation of the backwaters and to reduce and regulate disadvantageous research projects.

It is necessary that a "wise use" plan be in order to protect and improve the current ecological state of the backwater. A proposed plan is included below.

Four lakes can be found in the area of the backwater of the River Tisza. This quiet environment provides excellent relaxation possibilities, for example swimming, fishing, boating, camping.

III. Definition of problems, questionnaire

With the support of local authorities and independent experts a SWOT analysis on the Tisza backwater, present circumstances and emerging problems.

SWOT Analysis

<p>Strengths:</p> <ul style="list-style-type: none"> ✓ unique natural features (flora and fauna, nature protection areas), ✓ three types of waters (Tisza, backwater, thermal water), ✓ calm, quiet environment, ✓ proximity of backwater to the citycenter, easy to maintain water level necessary for river-flat farming. 	<p>Weaknesses:</p> <ul style="list-style-type: none"> ☞ lack of nature protection, ☞ lack for hospitality infrastructure, ☞ unstable and unpredictable tourist trade, ☞ minimal direct infrastructural, supply of the backwater area, ☞ high probability of flooding, ☞ combination of municipal and private ownership.
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<p>Opportunities</p> <ul style="list-style-type: none"> ✓ utilization of natural resources for improvement of tourist trade (eco-tourism, cycling, thermal baths, etc..) ✓ utilization of tourist attractions based on the possibilities of the River Tisza and backwaters: sport, boating events, etc. ✓ bringing together businessmen, improve cooperation ✓ organization of events ✓ continuous infrastructure development ✓ adequate marketing 	<p>Threats</p> <ul style="list-style-type: none"> ☞ destruction of the nature protection areas resulting from increased use ☞ problems in nature protection ☞ increase in noise and degradation of natural areas as a result of increasing tourism ☞ clashes between participating businessmen ☞ high costs of adequate improvements ☞ problems in acquisition of necessary resources ☞ development problems caused by indefinite ownership ☞ realization of development proposals can become equivocal as a result of rehabilitation delays
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Evaluation of SWOT analysis:

Strength:

Natural resources:

In the 100 hectare area a rich vegetable and animal kingdom can be found. In the Gerje – Plane (Jenei rét), which borders three counties, provides a rich summer habitat for wildlife with its nesting birds (egrets, Black Storks, Ferruginous Ducks, Purple Herons and many other kinds).

Three kinds of water:

It's very unique that the River Tisza, its backwater and the thermal water can all be found in Tiszakécske. It is important that the River Tisza offers a possibility for constant water replacement at the backwater.

Calm, quiet environment:

Tizsakécske has the atmosphere of a small quiet town year round. The amount of traffic increases only during the summer due to the many visitors, mainly in the areas set aside specifically for recreation purposes. The old cottages in Ókécske and the smaller switchback roads remain quiet throughout the year.

Location near the city center:

The backwaters are located very close to the city center and every part of them can be reached easily. Making it easily accessible to those wishing to take advantage of its natural wonders.

River-flat farming:

The River Tisza provides the necessary water replacement of the backwater to accommodate the requirements for river-flat farming from spring until autumn. In past centuries this was characteristic of local agriculture means.

Weaknesses:

Lack of environmental protection:

Unfortunately the local authorities are not providing the necessary environmental protections in the area of the backwater. The protected areas are not marked and those who infringe upon the protections go unpunished.

Lack of hospitality infrastructure:

In the whole of the town there is no place that offers the possibility of accommodation for a group of fifty people. All facilities for tourists were built at the same time and they all have become outdated. All tourist institutions need to be modernized.

Unstable tourism:

The number of tourists visiting Tizsakécske depends particularly on weather conditions, because the swimming possibilities are Tizsakécske's biggest attraction.

Lack of infrastructural complement:

In the area along the Tisza backwater area no adequate network of roads or further infrastructure is in place.

Flooding:

As a result of flooding the water level is very often high, resulting in a high possibility of buildings and farms being adversely affected.

Combination of municipal and private ownership

Certain areas surrounding the backwater are privately owned, resulting in additional investments and long lasting, complicated, proceedings.

Opportunities:

Utilization of natural resources:

The town possesses many unused or easily developed areas. One of these, the area of the Tisza backwater, offers the most pristine environments with the biggest chances for development. Thermal bath tourism, the bank of the River Tisza and cycling tourism offer possibilities for further development, etc.

Opportunities for attracting tourists:

The tourism at the Tisza and the backwaters of Tisza could be revived by developing different events (fishing contests, rowing competitions).

Places should be provided where boats and bicycles can be hired for fishing or for biking.

Harmony of the interests of local businessmen:

If the local businessmen worked together, the chance of reviving tourism would be much greater. Due to competition this cooperation seems difficult but not impossible to realize.

Development of infrastructure:

What we need is a well-established network of roads and the development of infrastructure (water, gas, telephone, Internet), and an adequate marketing policy.

Threats:

Decay due to over-use:

When the number of people visiting an almost untouched area increases a certain damage to nature cannot be avoided. But this damage can be reduced if visitors take care and protect the environment and if visits to these places are organized and controlled.

The lack of environmental protection and competence can lead to the decay of the backwaters' flora and fauna after a certain period of time and it would be impossible to reintroduce them.

The extreme use of nature without any protection can cause irreversible changes in flora and fauna.

Noise and environmental pollution:

It can be prevented by adequate regulation and care by visitors.

Conflicting interests of local businesses:

It is very difficult to get businessmen interested in tourism to work together. The competition between those involved in like trades seems unavoidable, though it could be stopped with teamwork.

Difficulties raising investments to cover the high costs:

Large-scale investments are needed for building operations of an adequate level and developments, but they can provide a return within a short period of time, if the tasks are prudently carried out. Raising this money can be hindered by the fact that the local council possesses only small amounts of capital. Therefore it is of particular importance to gain the cooperation of and involve local businessmen in the planning and development.

Uncleared ownership:

As long as this point is not cleared up, development cannot begin.

IV. Alternative proposals regarding developments and their evaluations

1. Rowing lane

Proposal for a rowing lane

The first part of the rehabilitation of the backwaters of the River Tisza, done in 1982, tells of a utilization for sports and leisure purposes (lane of rowing, sport fishing, a lake for boating and a place for swimming) and the establishment of facilities for tourists and visitors (caravan for 400 persons, trailer camp, camping place for 600 persons). The rowing lane was planned to be built on the longest, almost straight part of the backwater. Under current circumstances this plan is impossible to be carried out, because the cleansing and the changes concerning areas protected by the Act of Nature Protection.

The establishment of rowing lane at other parts of the backwater is hindered by technical problems. The plan could only be carried out with high initial costs and would be very difficult to finance. It would cause problems during the realization phase as requirements for building rowing lanes for races stipulate that 8 separate lanes and a lane for practicing on each side are needed. It would mean a 160 meter breadth surface area and an adequate depth. The realization would demand very high costs.

If we take into consideration that in Hungary there are already four courses, in the towns of Szeged, Paks, Velence and Szolnok, the building of a fifth one should be well considered. There are only a few races and thus the maintenance of it could provide for a great financial loss for the local council. Other plans concerning the utilization can be seen in later development plans

2. Plans for leisure and recreation possibilities

The first version of this plan containing a detailed plan about the settlement of the lake area was made in 1996. As a part of this plan there was a suggestion about establishing a playground of 2 ha. and a park. In the meantime another idea arose concerning the development of the area at the so-called lake No. 4, close to Kerekdomb. The plan was to establish a resort there. It would be possible to build fishing farms, hunting blinds and holiday cottages relating to other leisure activities. The representatives of the local government accepted the plan complete with this suggestion and the realization of the plan began. Within the frame of the plan a canal was built between the living river and its backwater regularly providing fresh water for the backwater.

In the lake-unit No. 1. there was a small-scale cleansing of the bed. Lake No. 2. was completely cleansed. The lake-units No. 3 and 4 remained untouched.



This plan also contains the establishment of a swimming place in lake-unit No. 2. It would also be possible to boat here. The bed of Lake No. 1 remained almost untouched. A nature reserve was planned for this area. Paths and bird-watching blinds would offer the possibility to observe nature. Walking, biking and riding routes were planned around each lake. Lake-unit No. 4 would be utilized for fishing purposes. The fishing center already mentioned would also be established here.

The negative point of the plan to establish a swimming area and relating facilities is that in the town there are already two thermal baths and a swimming area at the living river. There is no point in establishing another swimming area because it does not enrich the offers for tourism. The noise made by swimmers and the facilities needed would likely disturb the brooding of protected birds living here and possibly cause damage to protected flora and fauna due pollution.

Therefore an idea arose of establishing an ecological park while maintaining the current situation. It would hardly interfere with the environment and nature, it could be carried out in several steps and it is based on present natural conditions and last but not least it would enrich programs for tourists and would offer alternative recreation possibilities for both visitors and local residents.

3. Tisza Backwater Ecological Park in Tiszaakécske

The park we dreamed up consists of three accentuated parts. The "attractions" are arranged around the water. By following the cycle of water we can see that it is taken from nature, makes its way through the many necessary uses of modern life, and is then returned impure to nature.

The three main parts of the park:

1. Nature and water

Water is an indispensable element for nature, landscape, animals, plants and all living creatures and therefore for the flora and fauna at the backwater as well. The naturally developed backwater



has organized nature into an organic system, an ecological unit. Typical floral coexistences and communities and groups of animals, first of all of birds passing through or breeding here in the summer have developed. To show and observe this could offer interesting leisure time activities for all visitors. Additionally local residents and students would have the chance to get to know the environment, a piece of landscape at the town border for more than 200 years.

We plan to establish a walking route, a path with educational purposes and a bird-watching area.

Information boards and signs set up during the first phase of the backwater would help to learn about the history of the environment and creatures living and breeding here.

2. Water and humans

Along the water, at the northern part of the backwater there would be a park presenting the cultivation of river-flats. Here, along the rivers, visitors to the park could study ways of cultivation long vanished due to the river regulation. This part of the park would present farming on fields, fruit-farming, basketry, pottery, fishing and fishery.

3. Water and nature

Water has to return to nature after being utilized by humans, because it cannot be used up to 100 percent. The quality of the water is of great importance. Water can get polluted while being used and materials can get into it destroying and damaging nature and its creatures. It should be prevented. Therefore in our ecological park we would like to present different ways of alternative sewage treatment. The town's sewage treatment plant is situated near the backwater and there we would like to create a park showcasing different kinds of alternative sewage purification. We would like to present with this facility that seemingly harmful results of human activities can be "tempered", even in ways harmless to the environment.



The realization of the ecotourism park does not demand big changes, the cleansing and the development of the backwater would be enough. The execution of the plan could happen in several phases, considering the expenses of work to be done. (The already existing natural and environmental conditions would be sufficient for the fundamental basis.) The different elements of the ecopark can be established one after the other or separately. The park would be closer to nature and it would enrich the offers for tourists and visitors.

Apart from the SWOT analysis we set up a questionnaire to get information about what the inhabitants think of the three alternatives outlined above and the rehabilitation of the River

Tisza's backwater. Sixty persons living either near the backwater or in other parts of the village were questioned. (The questionnaire and its evaluation in numbers can be found in the appendix.)

The evaluation of the questionnaire

According to the answers to the first question 88% of those questioned are pleased about and support the rehabilitation program. 78% show interest in the appearance of the backwater, and 24% would show it to friends living somewhere else. 92% assured us of a positive attitude.

From the alternatives most people chose the ecopark but also a rowing lane and new possibilities for swimming.

The answers to question 4 might astound the leaders of the town and they might make them think over their plans. One third of those questioned have not even heard about the rehabilitation plan and 62% know of it only secondhand. Although most of these people live in the area.

Concerning the development of private lands 40% suggest appropriation with compensation, while 52% would obligate the owner to develop the lands while adjusting to the environment, with some form of support.

90% of those questioned think that tourism would be enriched by establishing an environmental center at the backwater. The majority (68%) would give the job to keep the park to a team, the members of which have already taken part in establishing it.

In the last question people had to choose 5 out of 10 development possibilities they would prefer to be realized and they had to rank them.

The suggestions were given ratings depending on the points received; i.e. first place got 5 points, second place got 2 points and so on. The diagram that emerged (also found in the appendix) shows that inhabitants chose a path and a biking route around the backwater as first place.

2nd place was the establishment of a fishing farm.

3rd place was the creation of plant and animal observation areas.

4th place was the establishment of a playground and grass court.

5th place was to keep and enlarge the existing protected park.

We were pleased to see that the inhabitants almost completely share our opinion. We would like to mention two things: while taking the survey we had to face the fact that the majority of people asked know quite little about the cultivation of river-flats and the alternative sewage purification. It could be the reason that these two development suggestions got only a few points.

It emerges from the SWOT analysis that within the backwater is hidden a great possibility of utilization for tourism purposes. The answers to the questions confirmed for us that these resources are worth displaying and utilizing for tourism. The local council has taken a number of surveys so far. The rehabilitation of the backwater has already begun according to these plans (the bed of lake 2 was cleansed). The operations were stopped due to lack of money. To execute the plans of the local council, large-scale investments are needed.

Because of the poor financial circumstances we thought of carrying out a development plan that can be made in several steps and without high expenditure at the beginning.

V. Our plans and development suggestions

Elements of the development:

I. Presentation of the existing environment resources

Along walking routes and paths visitors to this area could observe the living world in the water, protected plants and animals. From a bird-watching post birds can be observed without disturbing them: birds of passage nesting in the reeds of the backwater, wild ducks feeding at the water etc.

It would be possible to admire birds on guided boat tours, under controlled circumstances and from the open water surface and observe dragonflies and other insects living and breeding at the water surface.



Step 1

Marking out walking routes

In the program the first part of the backwater would become a protected area. This area is almost untouched at the moment and its flora and fauna can be presented without any difficulties. This first part can be walked around along a track, thus a walking route can be created. We plan to cover the track with gravel or some other material harmless to the environment and fitting into it.

The second part cannot be walked around completely. At the northern part a route has to be marked out. The route should be paved so that it could be walked on even in rainy weather. The second part in its current state is not able to present its natural resources, because its bed has been completely cleansed.

The third and the fourth part can be walked around completely. There are possibilities to present natural resources.

Step 2

After marking out the route presenting the living world, **information boards** should be set up. After completely surveying the areas of the first part of the plan, it seems that 4-5 information boards should be set up presenting the places and the living world. The boards would contain the typical plants and animals of an area illustrated with pictures and brief descriptions.

In the third and fourth part it would also be worth it to erect boards. For these two parts 4-5 boards would be needed along the routes.

Step 3

To establish observation sites and a berth for boats at the first part. The bird-observation sites with a reed covering would be in this phase, completely fitting into the environment. Birds and other living beings could be observed from here without being noticed.

We also plan to establish paths for observation and educational purposes in the reeds. The walkway going through the reeds would also reach the water surface providing the opportunity to observe living beings.

Groups of visitors could start from the berth with guided boats to observe birds nesting in the reeds or insects and dragonflies pairing or flying over the surface.

II. Establishing paths for walking, biking and riding

The paths for biking and riding could be built based on the already existing walking path - established in the first step -. By paving the path it would be possible for bikers and riders to use it even in wet weather.

Routes could be marked even on a larger area. They could reach the dams (The Nature Reserve at the Middle Stage of the River Tisza). The cycle path could join the already existing 20 km long paved paths within the town that stretches from the northern part (Tiszabög - Jenei field) to the southern part of Tiszakécske (Kerekdomb - thermal bath). The riding path could be established around the backwater, along the educational paths and the walking and biking paths, thus not disturbing these. The path could lead to the dams and to Kerekdomb as well.

III. Establishing a forest for educational purposes and a park presenting the river-flat farming

The establishment of the **forest** is already underway. Trees have been planted. Paths have not been made yet. This forest was started earlier as a small and simple nature reserve and visitors can not only see the trees of the plain land and the river-flats but also trees living in other parts of the country and in the surrounding countries.

Step 1

It is most important to continue keeping the old nature reserve and to plant trees. The forest planted a few years ago consists of young trees. Paths have not been made yet, but the trees typical of the area along the River Tisza can already be studied there. Thus it is worth erecting an information board about the trees of the forest and the forests in the river-flats.

Step 2

At a later time when the trees of the forest can be cut down, the establishment of the path could be started. The walking path would be worth covering. It would be enough to cover it with waste wood. It would also make sense to build benches in the forests.

The park presenting the cultivation of the river-flats could be one of the main attractions of the ecopark. It would be established next to the forest for educational purposes. Our main goal during construction is to show visitors to the park the former cultivation of river-flats.



A grazing-ground of 1-2 ha. It would offer a home for native domestic animals: "mangalica" pig, long-wooled sheep, Hungarian "tarka" and grey cattle. There would be a sty for pigs, a sheepcote and a cowshed for 2 animals of each kind. The path would lead along the grazing ground and on an information board there would be descriptions of the animals with pictures and there would be a few sentences about the cultivation of river-flats and a short text about the traditional utilization of animals.

Fruit growing in the river-flats. In the river-flats - before the regulation of rivers - there were plantations of apple, pear, plum and apricot trees. The river-flats were used for agriculture. This kind of farming was an inseparable relation to water. In the spring the fruit plantations were flooded for some time. After the trees grew leaves the river returned to its bed and the remaining mud fed the plantations. Due to the close relation to water we thought of presenting this form of farming.

We are planning to set up a plantation of 1-2 ha. and we would plant apple, pear, plum and apricot trees. Next to this area we would also arrange a room for drying and bottling fruits where the different kinds of methods of drying and bottling fruits could be studied by the visitors to the ecopark. The products can be bought by visitors.

Next to the building for drying and bottling an information board helps to follow the "life" of a plantation, visitors can learn about the planted trees, their pests etc. The cycle of fruits can be followed from the tree to drying.

In areas with water, **willow, reed and bulrush** can also grow. They were all used by our ancestors. They made and wove tools, vessels for storing things etc. By growing willow in a smaller area - of 1/2 ha.- bulrush and reed can be found along the backwater, holding handicraft workshops visitors can learn about weaving bulrush or making baskets. The place for presenting crafts would be next to the place for drying and bottling. An information board would help to learn about these plants and their harvest, about the basket-weaving etc.

Along the river-flats **clay** can also be found. Potters made pottery with the clay and the dishes were used for storing all kinds of products and liquids. Dishes used for cooking and eating were also made of clay. The pottery workshop would be established together with the basket-making next to the rooms for drying and bottling. In workshops visitors could learn the craft of a potter. An information board would help to follow the way of the clay from drawing to the moments dishes are made.



Step 1

A grazing-ground could be established with low costs. But more money would be needed for the purchase of the animals and the building of a sty, a shed and a cote. Planting trees in the river-flats could also be carried out with little money. We think that the information boards could also be set up in the first phase.

Step 2

To establish facilities related to the grazing pasture and the cultivation of the river-flats (a sty, a shed..., workshops etc.) would be an expensive job. But they are indispensable because they make the park live and work and thus very exciting.

IV. Fishing possibilities. A fishing farm

Fishing is related to water and along the river, directly relating to the cultivation of river-flats it was a wide-spread job and it ensured a lot of families enough to live on. The ecopark would also attempt to present this activity, still not in the form of river-fishing but as fishing at a fishpond. Visitors can have a look at the procedure and tools of fishing. In the planned fishing farm



accommodation units for 2 and 4 persons would await visitors. On stages near the accommodation visitors can also try a little easier way of fishing: fishing with an fishing rod.

Step 1

Places for fishing can be established easily and with comparatively low costs at the lake-units 3 and 4. When the path for walking and biking around the area is ready small paths could lead from it to the stages. A popular form of

recreation demanding quiet areas thus could be established in the ecopark.

Step 2

A room presenting old fishing tools could be established close to the craft workshops or even in the same place. At the third part of the backwater - as there is a relatively huge water surface - it would be possible to present fishing. Visitors to the park thus could have a look at the stages of fishing. An information board could also be set up here to show fish living in the backwater and the process of fishing.

Step 3

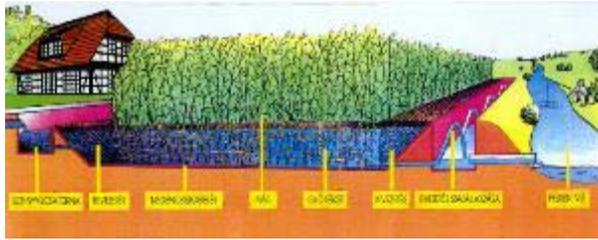
The largest expenses would be demanded by the establishment of the fishing farm. We adopted this development possibility from former plans not realized yet, because we think it is worth establishing quality accommodation with traditional principles of architecture - houses roofed with thatch, with puddle walls or with clay-bricks. We would suggest building 5-10 houses according to the demands. Each house would have 1-2 rooms with 2-3 beds, a kitchenette, a shower and a toilet.

V. Establishing a presentation site for an alternative sewage treatment plant

Water plays a very important role in human life, it is indispensable for life, the production of food and almost all forms of farming. Water can get polluted while being used and materials can get into it destroying and damaging nature and its creatures. It should be prevented. Water that emerges and gets polluted during human activities and utilization has to be drained and collected somewhere. After collecting sewage it has to be purified. We know a lot of ways of sewage treatment. Therefore in our ecological park we would like to present different ways of alternative sewage treatment. The town's current sewage plant is situated near the backwater and it is in this area we would like to create a park representing different kinds of alternative sewage treatment. With this facility we would like to present seemingly harmful ways to temper human activities, even in ways harmless to the environment.

In this part of the park we thought of establishing a facility presenting purification systems working with a root bed. Several kinds of these systems have been planned and established recently. We would suggest establishing a facility with reeds and other water plants. The basis of these systems is that water plants are constructed in shallow storage basins of sewage purification. The sewage flows and leaks through the zone of roots, so the sewage goes through a mechanical and a biological purification. A disadvantage of this method is that it needs more

space than other methods, but it is completely harmless to the environment and therefore it should be presented in the park.



Unfortunately this development would be the most expensive attraction of the park, therefore this project can only be carried out with the participation of investors.

VI. Other development proposals and ideas

The facilities of the park : the drying and bottling rooms, the workshops for crafts, basket-making, pottery, a small shop selling products from here and other products made from bio and natural materials and an information bureau would form the center of the park much like a farm center. A hotel for 50 persons seeking more luxurious accomodation would also be built here. A little further from here there would be a petting zoo for children to have a closer look at and pet the animals from the grazing pasture. Here would also be the sty, the cote and the shed. Near the center, at the waterside a camping site would await visitors.

The information bureau would offer maps of the park and the town and lists of the services in town etc.

VI. Results to expect

We have made a SWOT analysis to show what changes would occur at the backwater of the River Tisza if the ecopark would be established.

SWOT analysis

Strength	Weaknesses
<ul style="list-style-type: none"> ✓ A calm, silent environment ✓ Natural resources (flora, fauna, nature reserves etc.) ✓ "Three" waters: the River Tisza, the backwater, the treasure of thermal water.) 	<ul style="list-style-type: none"> ☞ Number of tourists varies and it is unpredictable ☞ High water-level due to the inland waters ☞ Mix-up of private property and property of the local government

<p>Water supplies are provided by the River Tisza).</p> <ul style="list-style-type: none"> ✓ The amount of water needed for the cultivation of river-flats is provided ✓ Adequate nature protection ✓ The backwater is near the town center Within easy reach ✓ Built up infrastructure around the backwater ✓ Facilities and accommodation for all needs (camping site, fishing farm, hotel) ✓ Team work of local businessmen, collision of interests could be reduced or even stopped ✓ Adequate marketing policy 	
<p>Opportunities</p> <ul style="list-style-type: none"> ✓ To organize events ✓ Steady development of infrastructure 	<p>Threats</p> <ul style="list-style-type: none"> ☞ Decay of nature reserves due to overuse ☞ Noise caused by the increase in tourism ☞ High costs of developments of adequate quality ☞ Difficulties about raising financing for development ☞ Development difficulties due to the ownership vagaries

1. This project can be carried out in several stages, therefore spectacular results can already be reached at the very beginning

2. The park and its facilities would enrich the offers for tourists in the town. The tourism to the town can increase and thus the income deriving from it would also increase.

3. At the beginning we have the possibility to build and base on the existing infrastructure:

- There is a paved road leading to the first and second part of the backwater, joining the main streets of the town.
- At the moment there is a restaurant in this area and a camping site is being established.
- The beginnings of a small nature preserve (first of all trees) can also be seen at the backwater.
- A playground and an area for skateboarding and inline skating has been established this year.

4. We should lay emphasis on the advertising of the park (throw-aways, prospects and other advertisements).

A new trend in the European Union: the preservation of natural areas and their utilization for tourism purposes. Tourism is continuously on the increase and has thus become the leading economic sector in the world. Currently, there is a great demand for recreation possibilities at natural areas as a result of the ever increasing number of tourists.

We think that our town should take the advantages offered by nature.

Literature:

Bagota József: Development Conception of Tourism in Tiszakécske, May, 2001. Tiszakécske

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April, 2002, Tiszakécske

Balogh Péter: Conception of the Cultivation of River-flats, Geographical Publications 3-4./2001.

Csapody Simon: The Small Dictionary of Plants (short descriptions and pictures of plants)

Edward Inskeep: Development of the Maintainable Tourism, Geomedia, 1991.

Lászlóffy Woldemár: The River Tisza

Ecological SH Atlas

Széky Pál: Ecology, Small Lexikon

Széky Pál: Environment Ecology of our Ages

Dr. Tamás János: Sewage purification and the deposit of sewage mud
University of Agricultural Studies, Debrecen 1998
<http://gissserver1.date.hu/tamas/szennyvizjegyzet/tartalomjegyzék.html>

Draft of the complete rehabilitation and utilization of the backwater of the River Tisza in
Tiszakécske
Vízvonal Tervező, Szervező és Szolgáltató Kft., January, 1998.

Rehabilitation of the backwater in Tiszakécske, Cleansing of the second part of the backwater
Vízvonal Tervező, Szervező és Szolgáltató Kft., October, 2001.

Appendix

Questionnaire for inhabitants about the rehabilitation of the backwater of the River Tisza

1. To what extent would you support the establishment of an ecological park at the backwater of the River Tisza
 - a. I would support it to the greatest extent, I would be happy about it.
 - b. I am indifferent to this project, I do not care about it.
 - c. I would be against it, because I think there is no need for it.

2. Would you regularly visit the nature reserve center established at the backwater of the River Tisza?
 - a. Yes, I would be curious to see what the new appearance of the backwater of the Tisza is like?
 - b. Only seldom, I would show it to my guests.
 - c. I would not visit it because I think there is no need for establishing such a center.

3. Which of the development alternatives would you support?
 - a. An ecological tourism park
 - b. A swimming area at the backwater of the River Tisza
 - c. Rowing lane - water sports

4. What have you heard about how the local government wants to rehabilitate the backwater of the River Tisza?
 - a. I know about everything in detail.
 - b. I have only a little information about the plan.
 - c. I have not heard of it yet.

5. How would you suggest the layout of the private properties should be carried out in the area?
 - a. I would obligate the owner to lay out his property to fit into the environment.
 - b. Along with some support I would obligate the owner to lay out his property to fit into the environment.
 - c. I would suggest dispossession with compensation.

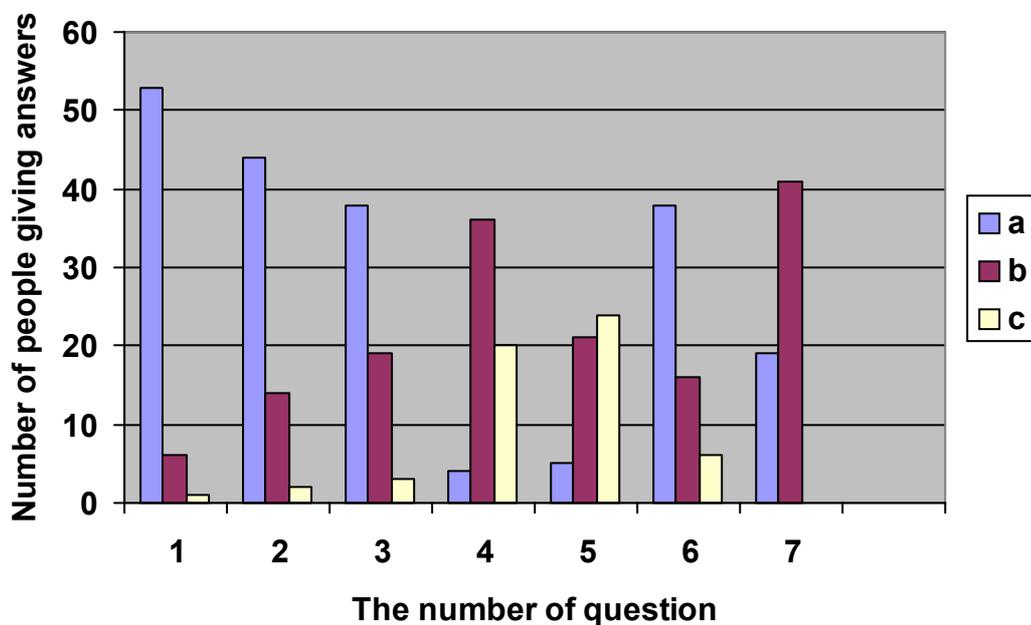
6. How would it affect tourism in Tiszaékéske if the area at the backwater of the River Tisza were to become a park with an emphasis on nature?
 - a. It would enrich the offers of the town for tourists.
 - b. Visitors to the backwater of the River Tisza would be likely to visit other areas of interest to tourists thus increasing the number of visitors here.
 - c. It would be a superfluous investment because people would prefer the River Tisza or the thermal bath anyway.

7. What would be your opinion of how a nicely built ecological park should be run?
 - a. Under the direction of a qualified person who really cares about it.
 - b. By engaging a team that takes part in establishing the park and that could be called to account.
 - c. Any other suggestion:

Answers in number given to the points of first 7 questions:

	A	b	c
Question 1	53	6	1
Question 2	44	14	2
Question 3	38	19	3
Question 4	4	36	20
Question 5	5	21	24
Question 6	38	16	6
Question 7	19	41	0

Answers presented in a graph:

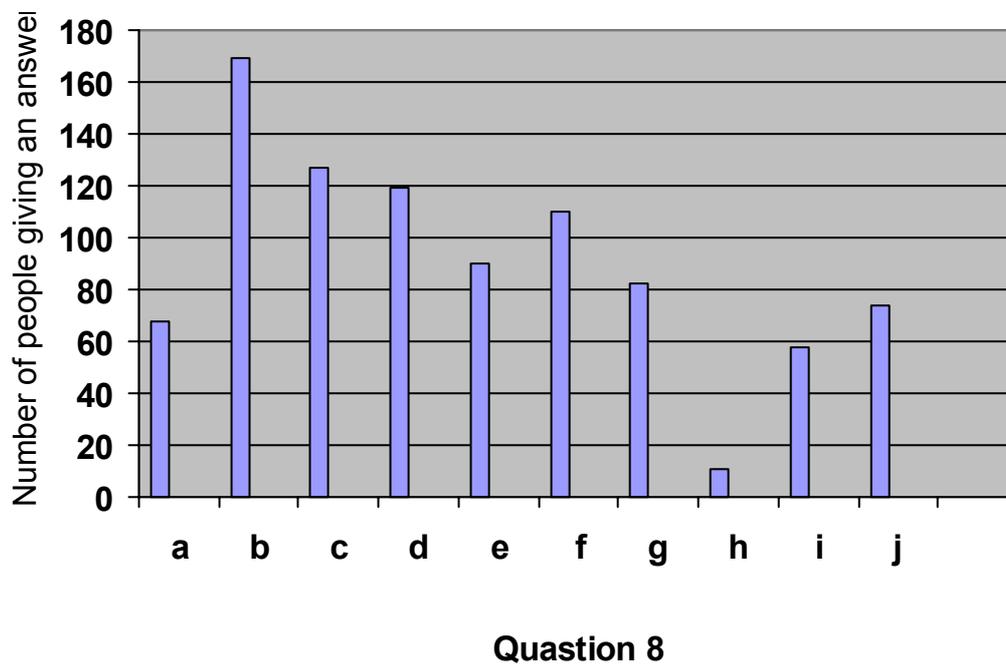


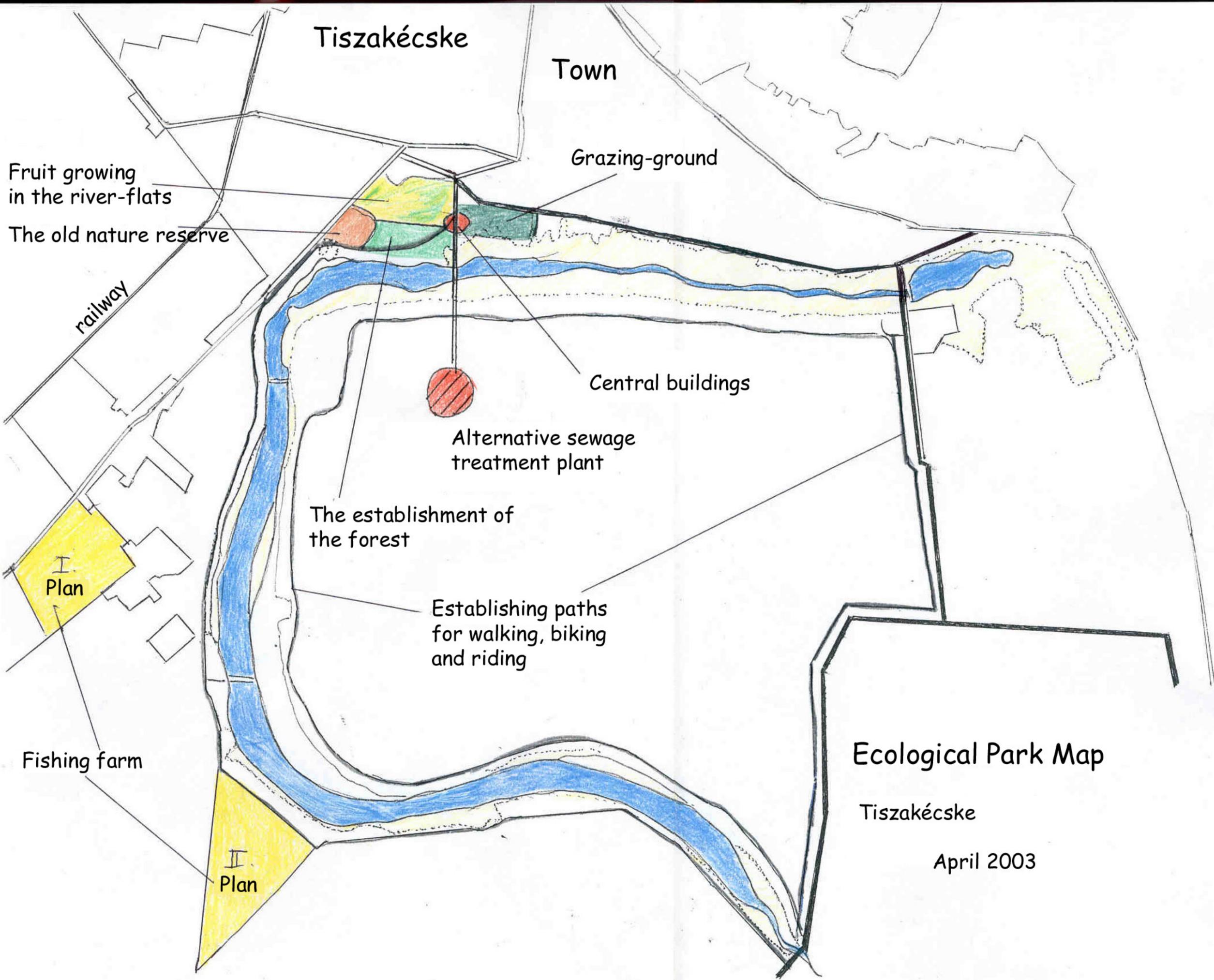
8. Which of the possibilities below would you like to see realized? Take 5 putting them into an order of relevance.
- rowing lane
 - a route for biking, a path around the backwater
 - to establish a fishing farm (fishing museum, opportunities of fishing)
 - to build places assuring the possibilities of observing plants and animals
 - to enlarge and to keep the existing nature reserve
 - to provide a playground, a grass-grown field
 - to mark a route (path), to set up information boards about protected plants and animals
 - to establish a park presenting the cultivation of river-flats
 - ice-run (for sledges)
 - to enlarge service facilities matching the demands of tourist

Answers in numbers given to question 8:

Question 8	1.	2.	3.	4.	5.	Total points	Place
a.	7	1	4	6	5	68	VIII.
b.	20	11	4	5	3	169	I.
c.	11	8	5	4	6	127	II.
d.	5	12	10	6	4	119	III.
e.	4	7	9	6	3	90	V.
f.	5	9	8	11	3	110	IV.
g.	2	4	9	9	11	82	VI.
h.	1	0	0	1	4	11	X.
i.	2	4	5	5	7	58	IX.
j.	3	4	4	9	13	74	VII.

Answers presented in a graph:





Ecological Park Map

Tiszakécske

April 2003