Chapter 15

BUILDING LOCAL SUSTAINABILITY IN HUNGARY

Cross-Generational Education and Community Participation in the Dörögd Basin



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The State of the Environment and of Local Communities in Hungary

From the point of view of sustainability, Hungary's pattern of settlement has an unhealthy structure. Two million of the country's approximately 10 million inhabitants live in the capital, Budapest. Of the remaining four fifths, some 4 million people live in other cities and towns, but the second largest to Budapest is smaller by an order of magnitude. Approximately 3.8 million people live in small, rural communities.

The state of the environment in the various settlement areas is partly the heritage of the command economy, which did not reckon with environmental quality in its production goals. Despite the substantial reductions achieved in emission levels of pollutants such as sulfur dioxides, nitrogen oxides, dust, and greenhouse gases, air quality is still unsatisfactory in most urban areas (the agglomeration around the capital and the industrial towns). After the fall of communism, significant reductions in industrial pollution were offset by steadily increasing pollution from individual and commercial transport. In fact, by the end of the 1990s, transport had become the major source of urban air pollution in Hungary.

Because of its location at the center of the middle Danube basin, Hungary has the highest annual average per capita surface water flow in the world. However, pollutants flow in across the borders, and local municipal and industrial entities lack adequate sewerage and other wastewater treatment facilities. Together these factors have made about three fourths of Hungarian surface water resources vulnerable to pollution. There is also significant pollution of groundwater, mainly fertilizer nitrates and traces of pesticides from industrial farming.

Hungary's most valuable natural resource is soil: some 85 percent of its territory is suitable for agricultural activities. The greatest problems here are the lack of a comprehensive strategy for protection of the land and the deterioration in the quality of the land. Many rural settlements suffer from decay and deterioration in the quality of life, due to insufficient economic activity, migration, and changes in the demographic structure of the countryside. Furthermore, the abandoned industrial areas in rural communities are not being rehabilitated, there is widespread littering and neglect of public areas, and green areas have not been extended to the limits prescribed by law. There is growing fear that rural settlements with traditional features have little chance of survival. Every year, a number of small and medium-size settlements representing unique values, traditions, and imagery are either eliminated or find themselves fossilized as country museums. Thus, despite some improvements in environmental quality in major urban areas and some indications of progress toward sustainability, many rural communities are still under the threat of virtual extinction and far from developing a sustainable economy.

Opportunities for and Threats to Sustainability in Local Communities

After the political and economic transformation in 1990, the freely elected Hungarian parliament enacted a code that gave local governments decentralized rights of decision making. However, neither this autonomy nor the numerous new tasks associated with it have come hand in hand with the necessary financial resources. Soon, the euphoria over self-government vanished as it was realized that both the local governments and the people themselves sorely lacked the skills and experience needed to solve old and new problems, to develop workable scenarios for local sustainability, and to raise the funds necessary for such programs. They could not even recognize that unsustainability and limited local resources were their particular problems in the new economic context following the collapse of socialist industry, in which multinational firms were arriving and the hitherto unknown phenomenon of unemployment had appeared.

Therefore, there was an urgent need to fill that gap in knowledge and experience by involving a variety of social groups and stakeholders into a historical learning process: designing a collaborative planning process for their own communities, building consensus, maintaining democratic decision making, and securing a high level of regular public participation. Many initiatives throughout the country, including local environmental action plans (LEAPs) and community action programs (CAPs) focused on promoting local sustainability. The initial and most fundamental step was to develop ways to educate people in the various aspects of sustainability. The main idea was to design curricula that would bring together members of different generations within the community, as well as representatives from a variety of economic sectors, to participate in the same training exercises at the same time. In this way, the idea of sustainability could be introduced into daily practice and start to influence the behavior of both producers and consumers.

One of the first activities undertaken in preparing local action plans was to assess local resource potential and prospects for self-sustaining activity. The local planning community had to identify sustainable uses of local human, land, and other resources and start planning future developments within these parameters. They had to create a capacity for managing the local resources as well as to strengthen local identity in the midst of changes and transformations. Finally, they had to cope with the lack of political will and coordinated programs at the national level regarding the implementation and support of programs in local sustainability.

Local Sustainability: National Legislation and European Assistance

Shortly after the Hungarian delegation came back from Rio de Janeiro in June 1992, the government passed a measure (Nr. 1024/1993) on the tasks related to the conventions adopted at the Earth Summit. It also adopted Agenda 21, which made all ministers responsible for submitting concepts of "concrete possibilities" of implementing the international agreements. Though smart reports were sent periodically to the UN, so far, no clear concept of sustainable development has been elaborated or implemented for Hungary as a whole. Meanwhile, some of the environmentally positive results in the reports—such as the trends toward decreasing use of either energy or chemicals—were actually symptoms of the difficult situation of the economy in the transitory period.

Just recently, however, direct measures aiming at sustainability have appeared in governmental programs. In 2001, the government announced programs for energy efficiency, schemes for the utilization of thermal waters, and the national agrarian-environmental program (NAKP). The NAKP was based on a professional interpretation of potentials for local sustainability combined with the principles embodied in the Common Agricultural and Rural Policy for Europe (CARPE) or the proposals for reform of the Common Agricultural Policy (CAP) of the European Union. In 2002, Hungary's Ministry for Agriculture and Regional Development even launched an operational program for NAKP. Within the framework of this horizontal, country-wide program small farmers, based on a five-year contract, voluntarily agree to undertake environmentally sensitive cultivation of their land, thus limiting the intensive industrial farming methods that undermine sustainability. Some of the contracts include obligatory training on the methods appropriate to sustainable agricultural land cultivation.

Some EU pre-accession programs, like SAPARD (Special Accession Program for Agriculture and Rural Development), could serve as suitable vehicles for channeling local Agenda 21 approaches into the local development strategies. So far, more than two hundred strategies for small communities have already been evaluated. Some of them, initiated by environmental NGOs, are focusing on the protection of the highly valuable ecological resources of their respective territories. It is worth mentioning that these strategies are based on careful planning and have secured real public participation. Despite these positives, the actual start of the operation has been postponed awaiting a decision on concrete support from SAPARD.

Learning from the Past: The Commons—A Tradition of Sustainability

There was a long tradition of measures at the village level regarding the sustainable use of commons—forests and pastures—which was coded into sophisticated written as well as oral rules that go back to the seventeenth century. Unfortunately, this great tradition has almost disappeared in the Carpathian basin. Only very old men remember the practice. The Hungarian practice was researched by a historian, who uncovered old records from Transylvanian villages and found that the rules related to the use of the commons (and serious sanctions for violations) were enforced equally for everybody, without discrimination according to social rank in the village hierarchy. Both the landowner and the peasants accepted the decisions of the community on a year-by-year forest management plan, which involved strict rules providing for the maintenance of the forest economically and ecologically. The forest was protected both quantitatively and qualitatively, while room was made also for satisfying the community's need for wood.

This old tradition cannot be restored directly in contemporary society, but its message should be adjusted to new conditions. It could then contribute to a further articulation of the concept of sustainability and gain influence in shaping the mentality of both rural communities and organizations such as the Society of Foresters and the Hunters Association, which are active in rural areas. Politically, the notion of sustainability could be shown to resonate with the national historical tradition.

Examples of Local and Regional Initiatives for Sustainability

There are a number of programs and initiatives in Hungary that do, by and large, conform to the essential ideas of sustainable development. The program for the Tisza Valley, the strategy and physical planning for the Körös-Maros region, and the development concept for the Ráckeve-Soroksár region, all initiated by the government, share characteristics such as being in harmony with the recommendations of the United Nations Conference for Environment and Development (UNCED). They also show a strong process of participation involving various stakeholders, including NGOs.

However, the issue of local sustainability has been raised more frequently by national and local NGOs. One of the most interesting models is the comprehensive Sokoró Region Initiative, which promotes a deliberate reorientation toward traditional yet sustainable agricultural methods that adjust cultivation and production to natural conditions; for example, growing fruit trees rather than wheat on the hillsides. The reintroduction of native fruit species also has contributed to the development of eco-tourism, with programs like demonstration of renewable energy, fruit-tree gene banks, the breeding of traditional horses, and the maintenance of natural wild animal areas and education trails reducing local unemployment, all in all. The non-profit Sokoró Foundation together with the local government have established a firm, which provides expertise and offers a franchise-type production model to the farmers.

Other examples of successful local actions can be given. Within the traditional small villages of Ormánság, surging free-market capitalism threatened what was left of the natural resources after the command economy. The Ormánság Foundation started its program by emphasizing the autonomy of the landscape. Protection of the landscape heritage was combined with a solid technology program and community protection. In the small village of Gömörszöllős with 199 souls, the local NGO, the Ecological Institute, a foundation for sustainable development, did a comprehensive survey and took responsibility for the social situation, economic activities, and the state of the environment there. Their program includes many simple alternative technologies, training and consultation, and the practice of sustainable tourism and agriculture. The 360-hectare Galgafarm First Hungarian Organic Agricultural Cooperative was also initiated by an NGO. Despite initial difficulties, it was selected as a member of the European Network for Sustainable Development of the European Parliament. Finally, the Somogy Nature Preservation Organization was the first NGO in Hungary that purchased land with a view to nature preservation. This organization also was entrusted with managing a protected area-the first time that a civic organization in Hungary has been assigned a state task.

Environment and Development in the Dörögd Basin: A Case Study, 1991–2002

The Dörögd Basin is a rural catchment area bordered by five small villages, partly overlapping the Lake Balaton Uplands National Park, in the Transdanubian (western) part of Hungary. The Independent Ecological Center (IEC), a Budapest environmental civic organization with several partners and sponsors, started a rural community program here as early as 1991. The interactive process was based also on the experience of local environmental action plans (LEAPs) in fifteen small towns in Hungary (1992–1997). The method of comparative environmental decision making that was used here was introduced in Central and Eastern Europe by the Institute for Sustainable Communities (ISC) of the U.S. state of Vermont, a partner of the IEC. The procedure was adapted to Hungarian conditions. The IEC aimed to use the lessons learned in the urban communities to broaden its rural project, targeting depressed rural settlements that nevertheless possessed valuable natural resources and local traditions. Since 1991, the IEC has been running an ever widening program for organic development in the Dörögd Basin. In the course of the activities, from the first community college (Volkhochschule) through the organic development phase, knowledge on local issues has been collected. The small region has a number of natural and cultural values.

The Landscape

The earliest archaeological finds in the Dörögd Basin that demonstrate human activity date to the ninth century B.C. The soils preserve the memory of forest masses. The landscape was significantly changed by the activities of the Roman Empire, which built military highways and settlements along the Eger-víz (the Eger stream). The medieval settlements were smaller: fourteen villages shared the area, separated from each other by forests. During Turkish rule, the majority of villages became depopulated, and at the turn of the seventeenth to eighteenth century only six villages were repopulated. These villages continuously increased the acreage of their fields, so that first the forests, then the pastures disappeared from the center of the basin and from the peripheries of the villages. At the end of the nineteenth century, the fields not only climbed up onto the slopes but also claimed the wetlands. However, hillside farming began to decline with the spread of large-scale intensive farming of monocultures.

The landscape contains several areas or features that have been designated for protection due to their unique natural or cultural values. The Balaton Uplands National Park was established in 1997. Park lands stretching into the basin include the Királykő cliff at Kapolcs, the wetland area around the Kálomisz Lake, and the Imár Hill, the central feature of the basin. All of the basin's five villages claim this landmark as their own. The inhabitants have erected a wooden cross on the ridge of the hill. The buzzing of the bees and the scent of flowers mixed with this holiness all go well together with the nearby fire-place, where locals celebrate the midsummer's night. Numerous protected plants can be seen flowering in the spring wind. One of the most extraordinary of these is the abundant, lemon-scented, thickly flowering burning bush. The Király-kő, a steep, gray, 400meter-long basalt formation, visible from all look-out points, can also boast of botanical rarities. Some other elements of the landscape are protected locally. The Nagy-tó (Big Lake) and its beautiful surroundings are the habitat of several rare species. The most valuable part is the peat moss that covers approximately 35 percent of the area. The Cloister-Spring and the Tálod Monastery ruins can be found in a quiet woodland setting. The Eger-víz crosses the area. A small section of the living landscape is supported by famous natural springs.

Geology

Very few of the minerals found in the Dörögd Basin are worth collecting: olivine, calcite, aragonite, barite, and manganese dendrite. Quarries were opened to pro-

duce building materials: stone, sand, clay, gravel and lime, or dolomite; their sites can also be found in the area. The basin also has deposits of a rare mineral called alginite, made up of algal biomass and volcanic tuff disintegrated into clay, which is used to increase the fertility of the soil. The diversity of the basin's fauna is due partly to the numerous and varied kinds of rock here.

Climate

The climate of the basin shows an interesting balance of continental, Atlantic, and Mediterranean effects. The amount of precipitation to fall on the land exceeds the amount that evaporates. Consequently, the natural vegetation of the area is forest. The snow cover lasts from November till mid March. Summer's frequent cloudbursts are a significant erosion factor. The dominant wind direction is north northwest.

Water

The vital element for life, water, is found in many forms in the area. On the surface, water primarily occurs in the form of springs, streams, or lakes. As precipitation it can come as rain, sleet, hail, dew, fog, frost, snow, and rime. Beneath the surface, clean cavern water is found in the cracks and crevices in limestone and dolomite.

An enormous amount of water extraction following bauxite mining in a neighboring area—a former Soviet interest—coincided with intensive deforestation and years of drought, causing water to disappear in the basin for almost a decade. Many springs, streams, and lakes fell victim to man's thoughtless interference. Several lakes have formed on the beautiful basalt plateau. The most significant surface water feature is the Eger-víz, a stream that crosses the basin. The entire network of the basin's streams belongs to the catchment area of Lake Balaton.

Vegetation

The vegetation in the basin is diverse and colorful, since the geological surface is also extremely varied. The decade-long disappearance of the region's streams led to significant changes in the conditions for vegetation, including the wilting and slow demise of waterside plants. The most characteristic forest types are the Turkey oak-oak and the hornbeam-oak forests, although extrazonal beech forests are also to be found. Abandoned, ungrazed pastures and uncut meadows have become overgrown with shrubs and trees: the blackthorn, hawthorn, dogrose, and barberry are the first to become established.

Botanically, one of the most valuable pastures is Imár Hill, which is surrounded by fields at the junction of the five village boundaries and has never been forested during its use. Many historic events and legends revolve around this place. The area was put first under local, then national oversight of nature conservation. Varied types of habitats have evolved to accommodate more than two hundred plant species, amongst them the purple anemone and small pasque flower, mottled iris, yellow adonis, silky buttercup, maiden pink, and burning bush.

Animals

Some prehistoric finds tell us about the animals that once lived here: for instance, the shattered remains of a mastodon were found in the Pannonian (lower Pliocene) layers.

The varied relief conditions and the vegetation of the Dörögd Basin enables mammals requiring different habitats to live in proximity to each other: the stag, the boar, the fox, the badger, the marten, the hare, the squirrel, the large dormouse, the mole. One can meet roe-deer, even during the daytime, both in the forest and in fields. The last colonies of the legally protected gopher, considered an agricultural pest only a few decades ago, can still be seen on the highest point at Öcs.

Many bird species are at home here: the turtle dove, the common swallow, the house martin, the corn bunting, the yellowhammer, and the buzzard. The goshawk hovers, hunting for grasshoppers, insects, voles, and mice in the grass. The red-backed shrike, the Old World skylark, and the crested skylark are quite commonplace. One can also meet the great spotted woodpecker, the serin, the magpie, the golden oriole, the white wagtail, and the lesser whitethroat, and hear the nightingale. Two rare bird species are known to nest here: a pair of bee-eaters and a pair of common wheatears. The black redstart and the linnet are also to be seen only here. The meadows are full of the familiar "pitye-palatye" sound of the quail. Walking quietly in the forest, one can meet robin, wren, chiffchaff, jay, blackbird, chaffinch, the common sandpiper, the song thrush, the woodpigeon, and the mistle thrush. Old orchards are visited by wrynecks and hoopoes.

The region is also rich in reptile, amphibian, fish, arthropod, and insect species.

Energy Resources

As late as the 1950s, energy consumption in the characteristically rural environment of the basin was at a level that could be sustained over a long period. Around the house, people used wood for heating, hot water, and cooking and they used paraffin candles for lighting. In agriculture, they used animal traction for land cultivation. In industry, water mills were used for power and animals for traction.

Today, according to a survey, energy use has increased and diversified. For household needs, the local people use coal, local wood, oil, electricity, and PB gas for heating; PB gas and local wood or electricity for cooking; electricity, local wood, and PB gas for heating water; and electricity for lighting. In agriculture, there are tractors with internal combustion engines for soil cultivation, but animal power also is used. Our research identified a significant potential for use of alternative, renewable energy sources, including solar, wind, and biomass.

The Villages

The structure and position of the Dörögd Basin's five villages is closely related to the assets and the history of the landscape. Öcs was built at a crossroads. Pula was for a long time the most closed-off village in the basin. The mills of Kapolcs along the abundantly flowing stream and the paucity of its agricultural land had made it early on an industrial and trading village. Vigántpetend once fit the pattern of the "one-street village." Taliándörögd was built along the route to the market at the small town nearby. The villages are defined by their architectural traditions as well, especially their stone buildings with rendered (plastered) walls and yards encircled by plain stone walls. The traditional lifestyle was reflected in the settlement pattern of family houses situated within a garden plot. Every house had an ornate flower garden, an orchard, and a vegetable garden supplying homegrown foodstuffs.

Wandering around the landscape, one notices traces of old settlements, the ruins of buildings, bridges, weirs, and mills that give clues to the shape of human presence here in former times. The remains include the thirteenth-century Gothic church of Saint Andrew or another monastery belonging to the old Paulite order. The milling industry used to be a prominent feature of the landscape. This is reflected in many literary artifacts concerning mills and the millers, including documents dating as far back as the beginning of the thirteenth century, sayings, legends, and modern prose and poetry, which also celebrate the other beautiful aspects of the landscape.

The Local Community

Despite the decades of measures taken by the communist regime to discourage traditional small settlement communities, each village within the basin has its own identity, rich spiritual resources, and traditions. The still living crafts in the basin include carpet and broom making, basket weaving, woodcarving, stonewall building, beekeeping, wheel making (cartwrights), the making of corn-dollies, barrel making (coopers), blacksmithing, and shepherding. The locals know how to make cheese, cottage cheese, and toys, how to carve the handle of a knife, bake bread, bind sheaves and bushels, pluck goose feathers, collect and dry wild herbs, and make honeybread—activities that they pursue in addition to their more mainstream sources of livelihood. In Kapolcs, blacksmithing can be seen at first hand at an old forge resurrected as a living history museum, where occasional craft demonstrations are held.

The religious denominations in the area include Roman Catholics and the Hungarian Reformed Church (Calvinists). Only one clergyman lives in the Dörögd Basin; others, who work in several villages, come in from the outside to conduct their services. Each village in the basin celebrates its own patron saint on a feast day called the fete. This day is a holiday for nonreligious and non-Catholic families as well. It has become a custom for those who have moved away to pay a visit home at this time; cooking and baking go on for days in anticipation of their reception.

Other festive traditions also are still alive here. In Pula there is fasting from Palm Sunday through Easter week; on Holy Saturday people make noise with clappers instead of bells and receive eggs in exchange. Pigs are then slaughtered after the "Swabian" fashion. Of the customs that have survived intact in the basin to this day, the most important is the "green branch walk" on Easter Sunday. On the day of Corpus Christi, a gateway of flowers is built along the route of the procession. Like elsewhere, at Christmas it is a custom for carol singers to enact the nativity events throughout the village. In Taliándörögd they erect a Maypole. At the end of September there is a grape harvest procession.

Typically, the age structure of the population in the villages is older than the national average. There is only one school, housed in five buildings divided between two villages, which serves the children of these plus a third village. The children of the remaining two villages attend schools outside of the basin. The life of young people here differs in many ways from the lives of others living in similar small villages outside the basin. During the summer season, they all assist at the local cultural events. The local youth are recognized through young spokespeople, one from each village, who represent their generation at the fora held in the basin.

The local civic organizations were reconstituted or formed anew only in the 1990s, after the beginning of the political transformations. Under the old repressive system, only the voluntary fire brigades had been able to continue working—even through the 1950s. The best-known local organization is the Kapolcs Nature Preservation and Cultural Society, which organizes the summer cultural events. An old, now revitalized organization is the Farmers Circle. There is also a soccer club. These organizations have expressed their intention to work together with their local government to develop the basin in a sustainable, nature-friendly manner.

The basin's annual cultural festival started in one village in 1987. By 1998, it had been extended to all five villages. Some 120,000 visitors occupy the area for the nine hottest days of July to hear concerts, watch theatrical performances, and attend exhibitions. The community places, including the library, the church, the cultural house, the soccer field, and—God forbid!—the pub, are open to multiple uses.

Developing a Vision for the Community

Planning for the Dörögd Basin's development program was initiated early on by participants of the community college, who issued a "letter of commitment" inviting further cooperative community action. Subsequently, following an inventory of the physical resources and the natural and cultural values of the local area, a strategy of organic development has been agreed upon. The collaborative planning effort was based on the carefully organized public participation process but also included experts who, working from the recommendations on both regional and village levels, summarized the objectives.

The community college served as the vehicle by which questions concerning the future of the basin were put to the local people. Discussions and lectures revealed the advantages and disadvantages of life in the Dörögd Basin. Questions were asked about prospects defined from both the individual and the community perspective, drawing attention also to possible visions of a desirable future. The two basic questions raised for the adults in the community were:

- 1. Where do you think our strengths lie for the next ten years?
- 2. What are the good things that give us confidence regarding the future and could become a "pull" to the area?

The answers stressed the following strengths, which in turn suggested which values ought to be protected:

- 1. The landscape,
- 2. The quiet, the tranquility,
- 3. Clean air,
- 4. The advantages of the location of the basin (close to Lake Balaton, yet removed from the noisy tourist hordes),
- 5. The legal protection of certain natural and cultural assets and values,
- 6. The diligence of local residents,
- 7. Time-honored skills and professions,
- 8. Herb gathering,
- 9. The hospitality of the folk,
- 10. The young people,
- 11. Good local management,

and others.

Ideas for aims that could realistically be achieved were also collected:

- 1. Making pictogram information boards (traffic signs)
- 2. Maintaining roads,
- 3. Creating jobs,
- 4. Increasing the number of organic kitchen gardens,
- 5. Engaging retired master craftsmen,
- 6. Increasing hospitable family house lettings,
- 7. Strengthening the cooperation of NGOs,

8. Increasing the number of hours spent working for the community, and so forth.

Children entered a picture drawing competition with the theme "The Future of the Dörögd Basin." The majority of the children's drawings reflected the beauty and peace of this small region. Only a few of the artists stepped outside of the prevailing ethos of rustic tranquility; generally, the children expressed positive feelings in their pictures. Despite the fact that many adults said otherwise, many children considered country farming practices natural.

A Program of Organic Development to Strengthen Local Sustainability

Based on the "letter of commitment" signed by the main stakeholders in 1993 on the one hand, and on the values expressed in the "spontaneous future vision" questioning process on the other, a comprehensive strategy of organic development was elaborated.

Conservation

The objective of the organic development program was to initiate effective communication among different stakeholders of the community in order to achieve environmental education in the broadest sense as well as to strengthen local capacities for nature conservation. The Dörögd Basin watershed seemed to be a suitable arena for launching such a program. An obvious starting point was the inventory of natural values, which was published and disseminated to the members of the community. All active conservation projects subsequently were grounded in the increased awareness engendered by this catalogue.

Organic Production

Almost from the beginning the main—and most difficult—objective of the program was to create an environmentally sensitive economic base of existence for the inhabitants. Agriculture based on organic methods would most closely satisfy the ideal. It would be naive to think, however, that lectures, courses, diplomas, and the few available contracts alone could change the existing profile of this means of livelihood in the short run. However, those who undertook to convert to organic methods could gradually remodel their practices by simple, "down-to-earth" steps, for example first reducing and then eliminating the use of pesticides.

Community Development

Environmental protection and community development are instrumental to each other. For seven years, the mayors of the villages were invited bimonthly to discuss issues before decisions were taken involving conservation issues. While doing so, democratic procedures were used and collaborative planning was maintained.

Scenarios for Autonomous Infrastructure and Sustainable Tourism: Expert Recommendations

The possibility of changing the structure of energy consumption and energy policy has been on the agenda of increasingly higher levels of government since the 1970s. From the beginning of the transition, sustainable use of renewable energy resources has been set as a special priority within these concepts. Accordingly, the Dörögd development program sought to set up a working idea for solving the energy requirements of the basin that would be compatible with the traditional landscape and with the agricultural and human values of the basin, using longterm sustainable resources. The feasibility studies completed here regarding the restoration of a sustainable landscape, the further use of renewable energies, and decentralized, alternative sewage treatment have been published as model recommendations at the national level.

Education

Within the Dörögd Basin, several generations side by side have been training to recognize the natural values of the area and ways to protect them. Courses were held on organic gardening, organic agriculture, and organic production of herbs. Also, courses for future hosts and hostesses young and old paved the way for sustainable tourism in the basin. In the school garden, local students learn how to work with herbs while using modern, solid technology, i.e. solar cells for drying. Educational opportunities such as these are designed to keep local youth in the small region. In the last few years, systematic education has been offered on land-scapes and their protection, on sustainable forestry, on traditional life, etc., in the form of field studies for students and postgraduate teachers' courses that included visits to the education center of the IEC in Budapest.

Lessons Learned: Collaborative Planning and Cross-Generational Education as Instruments of Local Sustainable Development

Analysis of recent experience in the Dörögd Basin shows tangible results of certain actions and approaches that have been taken there. Moreover, the effects have been complex, with positive interreactions between the environmental, economic, and social spheres. In particular, the following actions, grouped under broad categories, may be considered for general application:

Active conservation:

- 1. "Green corridors": planting an eleven-hectare native forest, planting an alley of linden trees five kilometers long, etc.,
- 2. Repairing and restoring natural stream banks,

- 3. Re-creating a mosaic part of the National Park,
- 4. Re-creating native orchards with technical and financial assistance,

Organic production:

- 5. Advising farmers and schools on organic gardening and agriculture and small scale food processing,
- 6. Growing organic herbs; using community-owned dehydrators to process them; initiating the cooperative "HERBIO,"

Collaborative planning and community development:

- 7. Strategic planning for complex organic development of the basin,
- 8. Feasibility studies on landscape protection, the use of renewable energies, and alternative sewage treatment,
- 9. Promotion of a concept of sustainable tourism,
- 10. Cooperative implementation of the strategy involving, for example, the local governments and youth,

Education and training for the local adult and youth population as well as for visitors:

- 11. Enhancing local awareness of the local natural heritage,
- 12. Developing community college courses and field-trips,
- 13. Offering environmental education for the local students and assistance in the school garden,
- 14. Organizing forums for farmers, entrepreneurs, civic organizations, mayors,
- 15. Establishing a field study center for landscape protection that invites students from outside the local area,
- 16. Publishing books and CD-ROMs; posting information on the Internet.

Criteria to be considered in evaluating such actions or approaches should include (a) the protection of both biological and cultural diversity, (b) the extension of community autonomy, and (c) the restoration of local identity.