



Federal Ministry for the  
Environment, Nature Conservation  
and Nuclear Safety

# German Initiatives Towards Sustainable Tourism



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## Preface

The travel branch is booming. People want to spend the most precious days of the year in beautiful and untouched corners of the earth, but this involves additional impact on the environment in the form of traffic emissions, waste, water consumption and land consumption – just to name a few examples.

This means that tourism has to adapt to the idea of sustainable development if today's holiday destinations are to remain attractive for tomorrow's generations and most particularly for their inhabitants, many of whom are dependent on tourism as a source of income. The political task facing us is therefore to develop the respective strategies and encourage their implementation through the creation of the necessary framework conditions.

In the area of international environmental policy, the German government is calling for the adoption of binding principles regarding sustainable tourism in sensitive areas. At home, it is necessary to ensure the long-term preservation of Germany's rich natural heritage and cultural treasures as a foundation for domestic tourism. The most important instrument in this connection is the designation of protected areas as a means of preserving flora and fauna as well as unique landscapes.



The question of whether tourism as a whole can be made more sustainable depends in the final analysis on whether and to what extent existing consumption patterns can be changed and active participants persuaded to play a role in the related processes. This brochure presents a selection – by no means complete – of exemplary projects carried out by differing organisations. The examples chosen clearly show that sustainable tourism does not have to spell less comfort or reduced experiential quality but rather represents an additional quality factor in itself.

I hope that this brochure encourages imitation on the part of the tourism branch, both at home and abroad, and that it provides travellers with an idea of sustainable tourism.

A handwritten signature in black ink, which appears to read 'Jürgen Trittin'. The signature is fluid and cursive, with a long horizontal line extending from the end.

Jürgen Trittin,  
Federal Minister for the Environment, Nature Conservation and Nuclear Safety

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# Sustainable Tourism Policy – Guidelines and Development Policy of the Federal Environment Ministry

Tourism is more dependent on an intact environment and state of nature than practically any other economic sector, yet it also involves a considerable impact on the environment. Examples in this respect concern the enormous volume of road traffic and waste and the gigantic consumption of land and resources that travel causes. The idea of sustainable tourism can resolve this conflict. It is by stopping the world-wide decline in species diversity, global warming, the uninhibited consumption of resources and the desertification of large areas of the earth that the foundations of life for future generations as well as the basis for the development of tourism can be secured over the long term.

It is against this background that the Federal Ministry for the Environment has developed strategies for a sustainable tourism policy. These strategies are to advance the necessary processes on an international level, and include national measures involving organisations concerned with tourism.

At the initiative of the Ministry, the leading associations and organisations of the German tourism industry issued an environmental declaration in 1997 in which they acknowledge "the necessity for sustainable development and ecologically responsible tourism policies." This environmental declaration is a guideline for the tourist trade, and it is the intention of the Ministry to use this declaration as a basis in entering into a dialogue with the industry concerning the implementation and continued development of the sustainable tourism idea.

In order to demonstrate the possibilities offered by environment management schemes to the tourist industry, the Ministry has had a series of guidelines developed for the hotel and catering trade, tour operators and tourist resorts on the basis of EMAS, the Eco-Management and Audit Scheme of the European Union. The German Hotel and Restaurant Association (DE-

HOGA) took up the idea and went on to add the contents of the EMAS-based guide to its catalogue of environmental consultancy criteria, which represents a preparatory stage for the EU audit scheme, and which is supported by the Federal Ministry for the Environment in its development.

If consumers are to be persuaded to use sustainable travel offers, they first have to be convinced that sustainability concepts not only benefit nature and the environment but also create additional quality for travellers. As part of a research project, the Federal Ministry for the Environment has therefore had a study made of the form that a successful communication strategy for sustainable tourism would have to take on. The results will be published during 2000.

Finally, the consumer must be in a position to identify the respective offers in the first place. No less than 46 different seals of environmental quality currently exist in the tourist trade. This diversity is not conducive to facilitating orientation; in fact, there is the risk that tourists' trust in the significance of such seals of approval will decrease as they are created. The Federal Ministry for the Environment has therefore taken the initiative and with the support of the Federal Ministry of Economics, has entered into a dialogue with interested tourist, local authority and environmental associations on the creation of a uniform system of identifying sustainable tourism offers in Germany. The aim is to create a designation which provides a guarantee for a given service on the basis of credible and verifiable criteria.

The appeal of most tourist locations depends on the quality of the landscape and natural surroundings. This means that only destinations in which the natural heritage is successfully preserved and protected will thrive over the long term. The most important instrument in this respect is the designation of protected areas that are of particular significance for the development of



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sustainable tourism concepts. In collaboration with the Association of German Nature Parks, implementation of the European Charter for Sustainable Tourism in Protected Areas is currently being tested in three pilot parks – Frankenwald in Bavaria, Steinhuder Meer in Lower Saxony, and Insel Usedom in Mecklenburg-Vorpommern. The 7th Federal Competition of German Nature Parks taking place this year also aims to demonstrate how nature parks as a category of protected area can strengthen a region through sustainable management.

Since protected areas or at least parts of them are environmentally sensitive, they are particularly well suited to fulfilling a role model function in the development of ecologically compatible traffic concepts, visitor channelling systems and exemplary means of resolving conflicts between protection and user interests.

The tourist trade posts annual increases in turnover of around 12 percent, and the World Tourism Organisation reports sales of \$35,000 billion in 1997. This indicates the scale of the challenge involved in implementing sustainable tourism, but at the same time, it also shows how necessary it is to gear tourism policy towards sustainability. The 7th United Nations Conference of the Commission on Sustainable Development approved a wide-ranging working program on tourism and sustainable development in the spring of 1999. It also invited the Conferences of the Parties to the Convention on Biological Diversity to become involved in this process by developing guidelines for sustainable tourism in sensitive areas. This issue is emphatically supported by Germany. In preparation for this step, the Federal Ministry for the Environment held a ministerial conference in Berlin in 1997, at which 18 representatives of European, African and South American countries and various international organisations drew up and passed the Berlin Declaration on Biological Diversity and Sustainable Tourism. Above and beyond this, Germany is also making use of its bilateral contacts with various states to gain allies for sustainable tourism policies.

The state fulfils an important function in the implementation of the concept of sustainable development, namely by creating the appropriate framework conditions. However, the concept will only gain ground to the extent that all social groups, including the business sector and the appropriate associations, gear their actions towards it. A number of tour companies and associations have taken up this challenge, setting an example with specific measures and comprehensive concepts. This brochure contains a selection of best practice examples considered suitable by the Federal Ministry for the Environment to demonstrate the implementation of the idea of sustainability in tourism. Although the brochure does not claim to be exhaustive, it is suitable for proving that sustainable concepts can benefit everybody concerned: the environment, tourists and the tourism branch itself.

# Best Practice Examples: German Protected Areas and Regions

## Bayerischer Wald National Park (Bavaria)

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The Bayerischer Wald National Park was founded in 1969 as the first national park in Germany, and was enlarged in size in 1997. It now covers an area of 242 square kilometres. Consisting to 99 percent of forest, it is currently the largest national forest park in Germany, and is surrounded by the Bayerischer Wald Nature Park, which covers the considerably larger area of 1,000 square kilometres.

### Aims of the national parks

The main management goal of national parks is to preserve as large a diversity of domestic flora and fauna as possible, whereby the national park regulations stipulate the objectives involved in detail. The World Conservation Union, IUCN, has laid down its own criteria for the recognition of national parks, for example:

- Three quarters of the surface area must be dedicated to the park's chief purpose. Primary objectives are the protection of biological diversity, the maintenance of environmental functions, tourism, leisure, information and education.
- Transition periods leading up to official recognition are provided for, but each national park must put forward a concrete timetable for achieving its conservation goals.

The importance of Bayerischer Wald National Park for tourism is clearly reflected by the increase in its numbers of visitors from 0.7 million in 1969 to 2 million in 1999.

### Experiencing nature

The Bayerischer Wald National Park offers visitors over 600 plant species in typical biotic communities such as raised bogs, for-

est communities, meadows, pools and ponds. Over 50 bird species are resident in the forest areas, including the pygmy owl, Tengmalm's owl, the ring onzel, the redstart, the white-backed woodpecker, the goshawk and the sparrowhawk.

Above and beyond this, the alpine shrew and the water shrew (both endangered species), the dormouse, the badger, the stone marten, the pine marten and the stoat can also be observed. Lynx and otter are rare. About 40 domestic fauna species altogether live in sixteen compounds and aviaries offering terrain in close keeping with their natural habitats.

### Environmentally compatible visitor channelling system

In order to avoid endangering particularly sensitive conservation areas whilst allowing visitors access to these areas, a number of visitor channelling measures have been implemented at Bayerischer Wald National Park:

- Discovery paths: Pathways with information signs throughout; wooden walkways in areas which are at particular risk from trampling
- Information points: Information panels and maps, particularly at car parks and information centres
- Footpaths, cycle paths and cross-country ski routes: Separate path networks for pedestrians and cyclists; parking facilities for cyclists; cross-country ski courses diverted away from sensitive natural areas to environmentally compatible routes.

Visitor care and area supervision are attended to by the National Park Attendants Service (Nationalparkwacht).

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## Local public transport with a role model function

The Bayerischer Wald National Park provides visitors with an extensive bus network and a Park & Ride system to reduce the impact of private vehicle use. The vehicles used in the system include seven buses powered by compressed natural gas. Known as Igelbusse (Hedgehog Buses), they not only transport visitors from one place to another, they also act as a source of information. Visitors are provided with information in a variety of ways:

1. from the specially trained bus drivers
2. in "Hedgehog Bus" brochures.
3. in a leaflet in Czech and German encouraging use of the bus systems by people from both sides of the border.

The Hedgehog Bus system received a "Tourism for Tomorrow" award from British Airways in 1996.

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## Rhön Biosphere Reserve (Thuringia, Hesse, Bavaria)

In 1991, the Rhön was recognised as a biosphere reserve by the international cultural organisation UNESCO in Paris, and is one of the approximately 340 biosphere reserves in existence. The Rhön is a low mountain range which stretches through the Länder Bavaria, Hesse and Thuringia. The biosphere reserve itself covers 1,850 square kilometres of space, and includes over 70 nature conservation areas. The Rhön Natural Area and Habitat Association (Verein Natur- und Lebensraum Rhön) has the task of co-ordinating the creation of an independent program of regional development within the biosphere reserve and also performs a lobby function. In each of the respective Länder, an administrative office has been set up to initiate and co-ordinate the implementation of the goals of the biosphere reserve.

### What are biosphere reserves?

Biosphere reserves are large, representative sections of natural and cultural landscapes, whereby the main emphasis is placed on sustainable management. Accordingly, exemplary concepts concerned with the protection, care and development

of the biosphere reserves are formulated and implemented in collaboration with the people who live and work in them. With regard to woodland management, this means adjustment to natural forestry methods over the long-term, and reorientation towards organic farming in the sphere of agriculture. Biosphere reserves are thus model areas for sustainable, environmentally compatible development.

They are generally divided into individual zones as follows:

- core zone with no human use (3 – 5 per cent of the area)
- maintenance zone with traditional low-maintenance land use
- development zone geared towards environmentally compatible regional development.

At the same time, the reserves serve such purposes as research into the relationships between man and the environment, ecological observation, and environmental education.

### A future for nature and people

This is the motto of the Rhön Biosphere Reserve, and means:

- preserving the valuable landscape as an asset and at the same time making efforts to achieve environmentally acceptable land uses
- promoting commercial activities insofar that they are environmentally compatible and conserve resources.

These measures are of model character.

The networking of these commercial activities is to contribute towards an increase in regional value creation and protect or create jobs in the rural area.

The biosphere reserve is to become a model region in which regional commercial activities and the conservation of nature are not seen as contradictory. Over the long term, consistent environmental protection taps market niches in terms of environmentally and socially compatible tourism, and contributes towards the stable development of tourism as a whole.

### **Tourism as an economic factor**

In order to promote tourism that is environmentally sound, socially justifiable and economically profitable over the long term, the Rhön inhabitants were actively involved in developing a tourism concept for the biosphere reserve. This cross-border concept shows the strengths and weaknesses of the region and indicates opportunities for further development by means of carefully targeted tourism promotion.

### **“Biosphere reserve” as an effective advertising label**

The possibility to use the designation “Rhön Biosphere Reserve” in advertising measures is an excellent point of departure in this respect. However, care must be taken to ensure that tourism offers and services live up to this claim.

### **“From the region for the region” measure**

Using the Rhön Biosphere Reserve as an example, extensive sales surveys have been carried out concerning the sale of regional agricultural produce to tourists. The surveys arrived at two findings, among others:

To date, relatively little turnover has been achieved on the basis of sales of agricultural produce to catering businesses, although considerable potential exists in this area.

The tourism-induced demand for craftsmanship services has already begun to generate a significant turnover.

If the potential in the area of regional products and services could be fully exploited, this would preserve 2,000 jobs in the region, create 500 new ones, and achieve a traffic decrease of approximately 80 percent thanks to the reduction of heavy freight traffic entailed. This in turn would achieve a decline in carbon dioxide from 185,000 kg to 42,000 kg a year.

The “From the Rhön for the Rhön” marketing association has been set up as a consequence of these findings.

### **Further projects**

Other projects associated with tourism have been implemented for the Rhön Biosphere Reserve. A selection of examples follows:

- Wasserkuppe visitor channelling system
- Cross-border calendar of tourist events
- Environmental concept for Hilders Youth Hostel
- Holiday apartments for the disabled (farm holidays)
- Concept and implementation of a 700-kilometre cycleway network to promote cycling tourism in the Rhön

- Cross-border restaurant owner partnership under the motto “From the Rhön for the Rhön” to promote the purchase of food from the region.

The more restaurants draw on local food resources, the greater their contribution to the preservation of the region as a tourist destination. Restaurants and catering establishments which prepare juice from traditional orchards as well as cider, meat and sausage products, cereal foods, traditional dishes

and beverages from regional products help underscore the Rhön’s distinctive profile. The aim is to promote eco-friendly farming throughout the region on the basis of species-compatible animal husbandry, decentralised marketing structures and short transportation routes.

- Establishment of grocery stores selling high-quality regional produce to a clientele made up of both ‘locals’ and tourists.

## Steinhuder Meer Nature Park (Lower Saxony)

This Nature Park, which is 310 square kilometres in size, is situated 25 kilometres north-west of Hanover. Its main focus and attraction consist of the 30-square-kilometre Steinhuder Meer, the largest inland lake in north-west Germany. The Nature Park covers parts of the administrative districts of Hanover, Nienburg and Schaumburg. Along with the Local Authority Association for the Greater Hanover Area, these administrative districts are the contractual parties

to the Steinhuder Meer Nature Park Agreement, whereby the Administrative District of Hanover bears responsibility for the park. Ten percent of the Nature Park have protected status, while another 65 percent are a landscape reserve.

The Steinhuder Meer Nature Park mainly acts as a local recreation area for the Hanover region, but is also becoming increasingly popular as a holiday destination. The principal tourist activities consist of walking, cycling, sailing, surfing and swimming.

### The tasks of nature parks

According to the Federal Nature Conservation Act, nature parks have the task of combining nature and countryside conservation with safeguarding appropriate recreational opportunities. Although they were initially mainly created in the vicinity of conurbations, they have since been increasingly established in structurally less well developed regions in order to promote tourism. Ninety-five nature parks now exist in Germany. The primary aim of the Steinhuder Meer



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Nature Park is to preserve the extensive wetlands as breeding and rest zones for birds while providing sufficient and attractive possibilities for recreation. In this respect, it is intended that nature conservation and recreation should complement each other in a meaningful way in the bog areas of the park, which make up 25 per cent of its area.

### **Sports activities in the nature park**

In the 1998 federal competition held by the Association of German Nature Parks, Steinhuder Meer Nature Park was awarded the silver medal for exemplary resolution of sports-related use conflicts. The solutions that gained this distinction are devised for conflicts between nature conservation interests and sports-related uses (sailing/surfing, cycling and ballooning), and are based on the following principles:

- Nature conservation should not exclude people from nature, and access prohibition should therefore be kept to the required minimum.
- The combination of attractive use possibilities, purposeful visitor channelling and good public relations is the most effective means of protecting sensitive parts of the landscape.

### **EXPO projects in the nature park**

Three projects are being staged at Steinhuder Meer Nature Park as part of the EXPO in Hanover. These consist of:

- Renovation of the historic Scheunenviertel quarter in Steinhude, including the creation of a nature park information centre
- Renaturation of a section of the Totes Moor bog near Neustadt am Rübenberge
- Preservation of the Meerbruch wetland area as a breeding and rest zone for birds

A further EXPO project is integrated into the "Energie- und UmweltBoulevard", a multi-functional service centre currently being

constructed by Minden-Ravensberg Power Station GmbH on an artificial island near Steinhude, complete with a cafeteria, changing cabins, sanitary facilities and an independent power supply solely fuelled by solar energy and biomass. It is intended to install a photovoltaic system, which is also to be used to recharge electrically operated hire boats.

### **European Charter for Sustainable Tourism in Protected Areas**

Steinhuder Meer Nature Park is also integrated into the nation-wide pilot project initiated by the Association of German Nature Parks. The aim of this project is to examine the relevance that the European Charter for Sustainable Tourism in Protected Areas has for German nature parks. The Charter was developed in collaboration with protected areas in France, Belgium, Great Britain, Spain and Italy. In addition to Steinhuder Meer, other parks being examined in the pilot project include Frankenwald and Insel Usedom. The Hamburg office KONTOR 21 has been contracted to implement the project.

The prerequisites for becoming a signatory to the Charter consist of close analysis of the respective tourist situation, development of a tourism strategy oriented towards the principle of sustainability, and formulation of a respective catalogue of measures. Admission to the Charter applies for a period of five years, after which an assessment is carried out of the implementation of the formulated objectives.

The aim of participation in the Charter process is to help the large conservation areas involved to a) find a more clearly defined tourism profile, b) increase their acceptance within the region, c) promote co-operation amongst the various interest groups involved and d) contribute towards Agenda 21 implementation. In addition to protected areas, tourism-related businesses (such as accommodation undertakings, travel operators etc.) operating in the areas involved can also subscribe to the Charter.

# Best Practice Examples in the Lake Constance Region

## Lake Constance Region

The Lake Constance Region is subject to intensive tourist use. The only way it can remain attractive for holidaymakers over the long term is by developing and implementing sustainable concepts.

The following passages presents three very different projects from the region.

### The ECOCAMPING project

ECOCAMPING is an environmental protection project run by the Bodenseestiftung foundation, and has been set up to provide 14 camp sites at Lake Constance and six at Lake Maggiore (Italy) with support in the introduction of an integrated environmental protection system by means of workshops and individual consultation services. At the present, only two camp sites in Germany are certified according to the EU Eco-Management and Audit Scheme (EMAS) namely Waldcamping Brombach and Naturcamping Malchow. The Bodenseestiftung receives 50 percent of its project funding from the European Union, while the remaining 50 percent is provided by the German Federal Foundation for the Environment, the detergent manufacturer Lever-Fabergé, German Environmental Aid, the City of Constance, Constance Tourist Information Office, the province of Verbano in Italy, and the participating camp sites.

### Eco-auditing too expensive

The majority of participating camp sites are small or medium-sized undertakings with few staff and limited financial resources, and thus cannot afford EMAS certification. However, the environmental management modules scheduled for development and testing over the next two years are compatible with the Eco-Management and Audit Scheme, and are suitable for use by all camp sites. The experience gained by

ECOCAMPING is to be transferred to other countries and integrated into the development of the Eco-Management and Audit Scheme for tourism service providers.

### Workshops with environmental experts

Four workshops involving Lake Constance camp site operators have been held to date. At these events, the participants and external environmental experts workshops formulated suggestions for improvements that have either already been implemented or which are intended for implementation at a later date. In September 1999, for example, the Gitzenweiler Hof camp site built a natural playground without artificial play facilities in consultation with a play space expert.

**The following camp sites are participants in the ECOCAMP project:**

Name	Location	Country
Campingplatz Hegne	Allensbach	D
Campingplatz Himmelreich	Allensbach	D
Campingplatz Willam	Allensbach	D
Campingplatz Klausenhorn	Konstanz-Dingelsdorf	D
Inselcamping Sandseele	Reichenau	D
Camping am Bauernhof	Oberteuringen-Neuhaus	D
Gutshof-Camping Badhütten	Tettngang	D
Camping Wirtshof	Markdorf	D
Camping Gitzenweiler Hof	Lindau	D
Parkcamping Lindau am See	Lindau	D
Campingplatz Birkenmühle	Deggenhausertal	D
Campingplatz Gohren am Bodensee Kressborn	D	
Campingplatz Salzmann-Rohrspitz	Fußach	A
Camping Ruderbaum AG	Altau	CH
Continental Lido	Cannobio	I
Campagna	Cannobio	I
Internationale	Cannobio	I
Riviera	Cannobio	I
Conca d'Oro	Cannobio	Italy
Isolino	Fondotoce	Italy

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Other themes dealt with to date in the workshops include environmental management and controlling, waste avoidance and recycling, the use of regenerative energies, energy management and energy saving potential. The first workshop for Italian camp site owners is to be held soon at Lake Maggiore.

The Klausenhorn camp site was the point of departure for the ECOCAMPING project, where environmental technology innovations were implemented with the help of the Federal Foundation for the Environment in 1997. These include a new building with sanitary facilities involving a 3 kW photo-voltaic system and 70 square metres of solar collectors, in which the toilet flush systems have been fitted with a lake water connection. Other camp sites became aware of these measures and showed increased interest in introducing environmental measures themselves. Since they lacked in expertise and financial means, they came together as a group at the initiative of the Bodenseestiftung foundation, which duly applied for funds for the ECOCAMPING project.

The proposals of the integrated environmental management concept are as follows:

### **Traffic**

Camp sites always generate road traffic. Therefore, the operators should try to reduce traffic impact in the interest of the environment and neighbouring residents. The following are examples of suitable measures:

- discounts for people not travelling to the camp site by car
- provision of a local public transport guest pass
- bicycle rental, and free provision of simple bicycles for shopping purposes
- hand trolleys or transport bicycles for transporting luggage from vehicle to pitch

### **Water**

Water can be saved by the following means:

- Installation of sensors in taps and urinals
- Installation of particularly efficient flow-restricting aerators into taps
- Water-saving shower heads
- Use of grey water, rain water, lake water or river water for toilets and for watering landscape facilities
- Installation of water meters for long-stay campers

### **Energy**

The use of regenerative energy sources reduces the consumption of fossil fuels and diminishes impact on the environment. Investments are recommended in the following areas:

- Solar collectors for water heating purposes
- Heat pumps
- Use of wind energy and photo-voltaic technology to generate electricity
- Purchase of "green" electric power

### **Waste**

Poorly separated waste costs camp sites a lot of money. This suggests the introduction of simple and readily comprehensible separation systems. Incentives for avoiding waste are better still. Examples in this respect include the following:

- Avoidance wherever possible of non-recyclable packaging
- Provision of an attractive selection of beverages in deposit-refund bottles
- Provision of a refuse collection point for glass, plastics, metal, batteries, corks, organic waste and residual waste, labelled in several languages

### **Provisions**

Key ideas here include encouraging the provision of regional and organic produce, and holding regular market days to bring fresh produce directly to end consumers. The avoidance of non-returnable packaging saves on refuse.



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## Environmental education

People are generally open to new ideas when they are on holiday, meaning that entertainment and environmental protection can thus be effectively combined as part of a holiday program. Holiday-makers are also more prepared to become actively involved in sustainability activities if they are fun. Such activities for children could consist of a nature adventure package including:

- making things with natural materials
- making and hanging up nesting boxes
- holding nature study tours and talks on environmental themes
- holding environmental campaign days

## The Island of Mainau

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In Germany, the island of Mainau in Lake Constance is associated with flowers, nature and a tradition that reaches back 700 years. It is the best-known attraction in the Lake Constance area, and draws 1.7 million guests from all over the world every year. The entire island is organised into a non-profit-making foundation with Mainau GmbH operating as its commercial arm.

It is in continuation of a long tradition that the company management feels an obligation towards protecting nature and the environment. The trailblazing Green Charter of Mainau was issued as long ago as 1961, and concerns the fact that fundamental rights are threatened when nature is polluted or destroyed. The signatories also call for the establishment of an ecologically sound agricultural and industrial landscape. The company has had a department devoted to ecology and nature education since 1992, and it became a tourist trade pioneer in 1998 when it became the first organic garden and tourist enterprise to successfully undergo an environmental audit in accordance with the EU Eco-Management and Audit Scheme (EMAS). In connection with participation, Mainau GmbH issued an Environmental Declaration in 1998 which contains ten guidelines designed to ensure that its activities are governed by sound environmental principles.

## Ecological camp site design

Guests experience greater well-being at camp sites that offer natural design elements, and will want to return. The following lists ways of achieving environmentally-compatible camp site design:

- Desealing car parks and paths
- Providing roofs and facades with vegetation
- Avoiding mineral fertilisers and chemical pesticides
- Providing planting consultation to long-stay campers
- Creating a natural playground without artificial play facilities

## Generating energy out of wood

The efforts of Mainau GmbH also included an energy concept, and the first measure was undertaken in this respect in 1997 with the installation of a district heating network for a combined heating and power station fired by natural gas. A wood-chip heating system was installed at the same time to provide heat from residual wood occurring on the island. The consumption of electricity fell by approximately 10 percent between 1996 and 1998, with the two new installations helping reduce carbon dioxide emissions by about 40 percent over the same period. There are now plans to build a biogas plant in 2001 in an effort to turn generate energy from organic waste produced by the catering undertaking and partially by the park.

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## **Rainwater and lake water for the park**

In order to conserve precious drinking water, rainwater is used to water the park, and lake water is used for the market gardens. Since drinking water consumption has nevertheless continued to increase in recent years (by approximately 10 percent between 1996 and 1998), there is an acute need for further water-conservation measures. Savings potential is seen in the installation of infrared sensor faucets, flow-restricting aerators, and metering faucets in catering establishments.

Wastewater from commercial operations on the island is tested before release into the municipal sewage plant.

## **Soil protection**

These efforts to conserve water are supported by clear regulations, continual monitoring and reduction of mineral fertiliser and chemical pesticide use. For example, the use of chemical pesticides was almost halved between 1996 and 1998 thanks to increased deployment of self-produced humus for fertilisation purposes. An area of about four hectares in size is covered by the orchards of a member undertaking of the Bioland association of organic farmers, and an area the same size is in low-maintenance use. A further area of 31.9 hectares belonging to Mainau GmbH but not on the island itself is a nature conservation area and is not cultivated.

## **Regional produce**

Over 80 percent of catering produce is obtained from suppliers based less than 200 kilometres away from the island, whereby the main vegetable and salad supplier is located in the region and is an EMAS-certified business. At 5 percent, the proportion of organic produce is still very low, but is to grow steadily.

## **Exemplary visitor information**

Mainau GmbH issues an extensive and informative environmental statement every year. Visitors are able to obtain a very precise idea of the state of developments in the environmental field on the basis of the data and facts provided in the statement.

In 1996, an innovative information centre for visitors was opened in a mediaeval fortified tower, set up in collaboration with German Environmental Aid as part of a project titled "Lichtblicke im Gärtnerturn" (Encouraging Signs in the Gardeners' Tower). The main focus of the information centre is a multimedia facility that creates 3D effects, whereby 1,000 pictures presented by 14 slide projectors provide a gripping overview of the ecological problems of the region and heighten awareness of environmental protection and nature conservation concerns. Guests simply expecting a lecture on the attractions of the island are sure to be disappointed.

In the three years between 1996 and 1999, 570,000 people have visited the information centre, and 142,000 have seen the multimedia show, many of them subsequently enquiring about guided tours or other nature conservation centres in the region. More and more enquiries are also made about the various public transport connections. The parking area for cars and buses is located on the mainland, and is connected to the island by a bridge. The use of public transport is encouraged with a range of special offers. For example, admission tickets to Mainau Schlosspark concerts are combined with a local transport pass, and savings can be made with the Lake Constance Card, the Constance Guest Ticket and the Lake Constance Pass.

In 1998, interested persons were able to participate in environmental education measures in the form of 120 further training projects, ecological guided tours, field trips, environmental seminars for schools, and so on. The environmental commitment

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displayed by the management of Mainau GmbH has resulted in the hosting of symposia and conferences on environmental themes for many years, whereby the company also involves itself financially in some of the events.

### **Intranet for employees**

An intranet installed in 1998 provides information on environmental activities to all employees, and also features the environmental management manual. Regular in-house and external instruction keeps the employees abreast of current developments.

### **The solar-powered ferry "Helio"**



The solar-powered ferry boat "Helio" has been in operation between Gaienhofen (Germany) and Steckborn (Switzerland), two towns situated on Lake Constance, since the late summer of 1998. Its use is part of the "Sustainable Lake Constance" project, in which the Bodenseestiftung foundation seeks to support nature conservation and environmental protection projects in the three countries surrounding the lake in a cross-border effort to both preserve the lake region as an intact biotic space and develop it along sustainable lines. The organisation responsible for the ferry is the German-Swiss Solarfähre Untersee association, of which the Bodenseestiftung is a founding member. The solar-powered catamaran was built by the German shipbuilding company Kopf

AG, which had previously designed and test-operated a smaller solar-powered ferry in 1998/1999. The response to this new type of passenger ferry was positive, with the result that the "Helio" was able to embark on its maiden voyage on September 19, 1999. The solar catamaran is 20 metres long and 4.60 metres wide. The wooden deck, which features futuristic stainless steel fittings, provides room for 55 passengers and 25 bicycles. The arched roof consists of a photo-voltaic generator that powers for two direct current motors. An electronic control system provides the catamaran with optimum manoeuvrability at minimum personnel.

So far the almost silent "Helio" has been used to support the existing ferry network at Lake Constance. In 2000, it will be avail-

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able on every second weekday between May and October and on weekends for the crossing between Gaienhofen and Steckborn.

### **Summary and outlook**

The testing and use since 1998 of the solar-powered ferry has had a stimulating effect on existing ferry services between Gaienhofen and Steckborn, and the "Helio" itself is primarily used by the increasing number of holidaymakers making their way around on bicycles. The excellent response to this

new, low-pollution type of ferry opens up the perspective of establishing a year-round, solar-powered ferry service over the long term as part of the boat services on Lake Constance.

The project is exemplary, pioneering as it does the development of a new form of efficient and ecologically-oriented transportation. It is also exemplary in the best practice sense, as shown by the planned use of solar shuttles of a similar type on the River Alster in Hamburg.

# **Best Practice Examples: International Protected Areas and Regions**

## **The Dzanga-Sangha region – Nature conservation and tourism in Central Africa**

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The Dzanga-Sangha region is part of the tropical forest belt in Central Africa. With over 7,000 flora species and over 50 mammal species, it is one of the most species-rich areas of the African continent. Due to this rich biodiversity, it has been identified by the WWF as an area worthy of protection.

WWF Germany is involved in the protection of the region, which is located in the southwest of the Central African Republic (CAR), in close co-operation with WWF USA, the German Technical Co-operation Association (GTZ), LUSO CONSULT International Development GmbH, and the CAR Ministry of Forests. The main objective of the project is to save the national forests. The area, which covers 4,500 square kilometres, is endangered by logging companies, illegal diamond seekers, and poachers, who are all involved in the predatory exploitation of nature.

In the meantime, the CAR has set up the 1,220-square-kilometre Dzanga-Ndoki National Park at the WWF's initiative. The objective involved is to save the natural forests of the Dzanga-Sangha region, which can only be achieved by combining nature conservation and regional development in an integrated approach. The WWF co-ordinates the nature conservation project, while at the same time, the GTZ attends to the local development measures. In addition to nature conservation, the project mainly engages in the fields of eco-tourism, socio-economic research, rural development, forest management and training. The local population has been involved in the respective activities from the very start.

### **Eco-tourism as a source of income**

One of the measures concerned with the protection of the ecosystem is the promotion of eco-tourism in the region.

The tourist infrastructure includes a small hotel facility with four wooden huts offering room for a maximum of 16 persons at the most. A covered terrace is located on the banks of the Sangha river, and further infrastructure features consist of an information centre, a viewing platform, pathways and boats. The tourists are introduced to the attractions of the rain forest in small groups, whereby all tours are led by indigenous people. Visitors can acquaint themselves with medicinal and edible plants and also take part in a traditional pygmy net hunt.

The viewing platform, which is located in a natural clearing, can be reached after a walk of about two hours' duration, and enables observation of such spectacular fauna species as the forest elephant, the bongo antelope and the forest buffalo.

Ninety percent of the proceeds from tourism – whereby each visitor pays a fixed fee – flows back directly into the project. Forty percent of the sum is placed at the disposal of the local population, which decides which small social projects they wish to support. The remaining 50 percent is administered by the managers of the Dzanga-Sangha project, and is used to both pay game wardens and train new ones.

In future, the continued pursuit of environmentally-friendly tourism will concentrate on the following measures:

- 
- Improving tourism services
  - Expanding the range of offers for tourists
  - Training tourist guides
  - Accustoming gorilla families to visitors
  - Establishing a nature trail in the canopy of the trees
  - Developing an environmental education program

## Turning tourists into advocates of Arctic preservation – Combining nature conservation and tourism in the Arctic

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“Combining Tourism and Nature Conservation in the Arctic” is the title of an initiative that has been in existence for four years as part of the WWF Arctic Program. The objective of the initiative is to create incentives for a process involving reduction of harmful impact and strengthening aspects of tourism with a positive nature conservation effect. The Arctic is particularly suitable for such an undertaking.



For this reason, the Norwegian Polar Institute and the WWF invited local experienced tourism experts, nature conservation representatives, tour operators, authorities, native people groups and research institutes from Canada, Denmark, Germany, The Netherlands, Norway, Russia, Sweden, the United Kingdom and the USA to Longyearbyen on Spitsbergen in January 1996 to draw up guidelines for Arctic tourism. The participants felt that the guidelines should cover all forms of Arctic tourism, and not just eco-tourism, and one year later agreed on ten Arctic tourism principles laying out a code of conduct for tour operators and one for tourists. These principles are to be adapted for municipalities at a later point.

About 1.5 million people a year travel to the Arctic. The main reason for the long cruises or expeditions involved is generally to experience nature. Anyone who witnesses the breathtaking beauty of the powerful and untouched landscape in the eternal summer sunshine and sees the plants and animals adapted to the extreme climatic conditions wishes not only to return again but also to help preserve this unique world.

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## **Putting a pilot project to the test WWF and Hapag-Lloyd join forces to protect the Arctic**

Cruises have a century-old tradition at Hapag-Lloyd, and the current programme includes voyages to the Arctic and the Antarctic. To ensure that these highly sensitive ecological systems are preserved for future generations in their original state, Hapag-Lloyd has initiated a pilot project in co-operation with the WWF to reconcile tourism with nature conservation in the Arctic.

Hapag-Lloyd has undertaken a wealth of measures in this respect:

- Ships deployed by Hapag-Lloyd are fitted with the very latest environmental technology. In Arctic and Antarctic regions they use diesel oil instead of heavy oil, treat waste water biologically and burn all waste in shipboard incinerators.
- The underwater coatings of the ships are non-toxic.
- In sensitive areas, landing places are examined by experienced expedition leaders before passengers are allowed to disembark.
- Shore excursions are made in groups of 20 led by experienced guides.
- Lectures are held on board to draw the attention of passengers and the crew to the sensitivity of the areas visited and to call on all concerned to behave accordingly.
- Hapag-Lloyd Cruises has become a member of the International Association of Arctic Tour Operators (IAATO).
- The environment delegate for Hapag-Lloyd Cruises has participated in WWF symposiums for developing ecological tourism guidelines in the Arctic, and also co-operated in the production of the brochure "Combining tourism and conservation in the Arctic".

As part of the pilot project, Hapag-Lloyd prints the German version of the brochure "Combining tourism and conservation in the Arctic" at its own expense, and issues it to all passengers on Arctic cruises along with WWF material and a questionnaire.

WWF representatives have been invited to participate on some of the cruises to both provide information about the project and the goals of the WWF Arctic Programme, and to gain an idea of Hapag-Lloyd's environmental profile and how the guidelines are being put into practice. The success of these measures is proved by an auction held to the benefit of the WWF Arctic projects, in which DM 23,000 was bid for a sea chart on a cruise made by the MS Europa to Spitsbergen. Other passengers were so motivated that they became members of WWF Germany.

A series of further but highly differing pilot projects has been decided on as a means of putting the guidelines to a practical test. By these means, tour operators from Iceland, Canada, Greenland, Norway, Spitsbergen, Germany, the United Kingdom and the USA wish to show ways in which their Arctic cruises and expeditions can be improved to benefits both nature and local populations more strongly.

The fifth annual workshop held as part of the project was concerned with the comparison of exemplary municipal tourism initiatives, whereby the main issue of the conference involved was to examine how municipalities can be encouraged to improve tourism activities in keeping with the principle of Combining Tourism and Conservation. In the meantime, the approach taken by the WWF Arctic tourism project has come to serve as an example for other regions. The WWF Mediterranean Programme, for example, has drawn up guidelines based on the ten Arctic principles and adapted them to the different forms of (mass) tourism experienced in the Mediterranean. In its further pursuit of the Arctic project, the WWF will be developing regional visions for nature conservation, for example for Spitsbergen, the Lofoten islands, Iceland and the polar bear town of Churchill in Canada. In the process, it will soon become apparent whether and to what extent the tourism branch is willing to help the WWF turn these visions into reality. The WWF also created a prize last year to encourage competition to the benefit of na-

ture conservation. The award for the best example in 1999 of combining tourism and conservation was endowed with a prize of SFr 10,000 and is to be presented a second time this year.

The following guidelines to environmentally-compatible tourism apply to tourists and in part to tour operators and entail an exact code of conduct for every point.

## **The Ten Principles of Arctic Tourism**

### **1. Make Tourism and Conservation Compatible.**

Being a form of environmental use, tourism should be made compatible to environmental protection concepts on an international, nation, regional and municipal level.

### **2. Support the Preservation of Wilderness and Biodiversity.**

The large wilderness areas of the Arctic are not disturbed by roads and do not bear traces of human civilisation, and are thus the main outstanding quality of the region. The sheer size of the wilderness is ecologically valuable and a main attraction for Arctic visitors.

### **3. Use Natural Resources in a Sustainable Way.**

Protecting natural resources and adhering to the principle of sustainability when using these resources is decisive for the preservation of nature. The undisturbed regions of the Arctic consist of natural assets that once developed and exploited can never be returned to their original state.

### **4. Minimise Consumption, Waste and Pollution.**

Minimising waste and pollutant emissions helps reduce ecological damage. This enhances the tour experience and saves on money needed to restore the environment.

### **5. Respect Local Cultures.**

Tourism should not change the living customs of local people and communities against their will.

### **6. Respect Historic and Scientific Sites.**

Archaeological, historic, prehistoric and scientific sites are significant for both cultures and research. Unauthorised intrusion into such sites reduces their value and is frequently illegal.

### **7. Arctic Communities Should Benefit from Tourism.**

Including the local populations in tour planning helps tourism fulfil important ecological and cultural aspects. This makes it possible to increase the benefits for the community, minimise possible damage and upgrade the tour experience.

### **8. Provide Staff with the Training Needed for Responsible Tourism**

The better staff are trained in ecological, cultural, social and legal considerations, the better the quality of tourism. Staff members should be role models for tourists.

### **9. Link Educational Goals with Tourism**

The provision of information about local social and ecological conditions can minimise damage and optimise the benefits of tourism for all those involved. Enhanced knowledge and positive experiences can turn tourists into committed advocates of Arctic preservation.

### **10. Follow Safety Rules**

Outdoor conditions in the Arctic can be treacherous. For this reason, all those involved in Arctic tourism should exercise due caution and adhere to safety rules and precautionary measures. Neglect in this respect can lead to serious injuries and cause laborious medical measures to the detriment of the municipality or community concerned.



## “Pennies for the Environment” campaign

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In 1991, the EUROPÄISCHE Reiseversicherung (a travel insurance company) initiated the “Pennies for the Environment” („Umweltgroschen“) campaign. In the new millennium it will continue to lend its aid to the preservation of nature as one of the foundations of life.

### **An environmental project for reinvestment in nature becomes an institution: The idea behind “Pennies for the Environment”**

The “Pennies for the Environment” campaign has created a direct link between tourism and environmental protection, whereby the active involvement of tour operators, travel agencies and the tourists themselves plays an important role. Ten German Pfennige (which amount to a Groschen) from each travel insurance policy sold by the EUROPÄISCHE insurance company is automatically siphoned off into the environmental project fund.

### **Selection criteria**

Stringent criteria apply to the selection of projects supported with funds from the “Pennies for the Environment” campaign:

- Both tourism and nature conservation must be involved.
- Carriers and travel agents – as vendors of EUROPÄISCHE travel insurance products – must be able to identify with the project.
- The project must involve concrete measures.
- The funding must be linked to the guarantee of tangible results (i.e. administration measures must not consume the funds).
- The project must be one that involves a destination that is also frequented by German tourists.
- On expiry of the year of support, EUROPÄISCHE will ensure that other sponsors continue the project, if applicable.

### **Best practice example: “Pennies for the Environment” campaign 1999 – peace parks in southern Africa**

In 1999, the “Pennies for the Environment” campaign supported a pioneering nature conservation project involving the creation of peace parks on the African continent.



The elephant population that lives in the Tembe Reserve in South Africa and the Maputo Reserve in neighbouring Mozambique is split into small groups due to the erection of borders, and thus one of the project aims is to bring the whole population together again in its original living space. Extensive studies enabled by the “Pennies for the Environment” campaign with funds of DM 90,000 are analysing the current situation of the elephants and the overall ecological equilibrium of the region. The funds have been used to finance posts for scientists and buy PCs and vehicles.

## Man and beast – Solutions for peaceful co-existence

More and more indigenous people are settling on the reserves in their search for a piece of land from which to nourish themselves, and engage in farming. The fields, which are often surrounded by fences, frequently lie on the migration routes of the elephants, with the result that man and beast literally get in each other's way in terms of needs and interests.

As a solution, a programme involving relocation of the settlers to the edges of the reserves has been drawn up following intensive talks with the people involved, and is closely oriented to their needs and to ensuring their understanding and acceptance of the measure.

### Development of ecologically-oriented tourism

A transfrontier conservation area or peace park has thus been created between South



Africa and Mozambique, accompanied by support of a pioneering tourism concept. Visitors from all over the world can now watch the varied animal world of the peace park in unrestricted fashion, since they no longer have to undergo time-consuming border formalities.

Very few tourism infrastructure facilities currently exist in the Tembe and Maputo elephant reserves. A purposeful and ecologically aware development of tourism is possible with the creation of the peace park.

### Overview of the "Pennies for the Environment" campaign

Over the past nine years, the EUROPÄISCHER insurance company has supported the following national and international nature conservation projects:

- 1991 – Protection of the turtles in Dalyan Bay, Turkey (DM 80,000)
- 1992 – Brodowin Eco-Village, Germany (DM 98,000)
- 1993 – Protection of the alluvial landscape in the Spree Forest, Germany (DM 100,000)
- 1994 – "Giants in Danger": Rhinoceros protection in the Ngorongoro Crater, Tanzania (DM 100,000)
- 1995 – Protection of the whales of Valdés, Argentina (DM 95,000)
- 1996 – Conservation of the rainforest in Costa Rica (DM 91,000)
- 1997 – Coastal protection at Hiddensee Island, Germany (DM 96,000)
- 1998 – Ecological tourism in the territory of the Hidatsa Indians in North Dakota, USA (DM 100,000)
- 2000 – Protection of the national bird of St. Lucia

## Best Practice Examples: Associations

### DTV's 1996 Federal Competition for Environment-Friendly Tourist Resorts in Germany

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Together with the Federal Ministry for the Environment and the Federal Ministry of Economics, the German Tourism Association (DTV) held a nation-wide competition entitled "Environment-Friendly Tourist Resorts in Germany" in 1996.

The object of the competition was to find exemplary measures and solutions in the six most important areas of municipal environmental action:

- Transportation, air, noise
- Waste
- Water, effluent
- Energy
- Nature, landscape
- Environmental management

The focus was not placed on the actual environmental situation of the resorts in question, i.e. air quality or effluent volume, but rather on their concrete commitment towards protecting nature and the environment, for example by reducing air pollution,

saving drinking water or protecting landscapes.

In order to determine the fulfilment of such requirements, potential candidates were sent an extensive questionnaire. This mainly queried concrete activities and special measures in the six environmental and nature categories in which the resorts engaged.

The projects were assessed according to the following criteria:

- Positive effect on the environment
- High degree of involvement and acceptance
- Innovation and creativity
- Convincing description

Above and beyond this, the competition was also held to gain findings for a long-term goal of the DTV, namely the introduction of an environmental designation system for German tourist resorts.

### DEHOGA environmental competition "We run an environment-friendly business"

Each year since the early nineties, the German Hotel and Restaurant Association (DEHOGA) has been providing its members with an annually updated guide to environmentally-oriented business management titled *So führen Sie einen umweltfreundlichen Betrieb* (How to Run an Environment-Friendly Business). In addition to extensive information on the topics of regional purchasing, environment-friendly construction, life cycle assessment and integrated environmental management, the central element of the guide consists of a 40-point catalogue providing implementation recommendations on:

- Water / Effluent
- Energy
- Waste avoidance / Waste separation
- Air / Climate
- Local environment

This catalogue of criteria is supplemented by a list of ecological indicators for determining and assessing business environmental measures. With the help of a computer-supported calculation program developed by the DEHOGA in 1997, hotel or restaurant managers can calculate the savings potential of their business in environmental terms, using either their own indicators or those provided in the guide.

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Together with the Federal Ministry for the Environment, the DEHOGA holds an annual environmental competition in order to foster the acceptance and attractiveness of the implementation of the operational measures. The competition is participated in each year by numerous hotels and restaurants as a means of qualifying themselves in this respect.

The new DEHOGA competition, which is titled "We run an environment-friendly business", is characterised by the fact that it is implemented uniformly all over Germany, thus ensuring nation-wide comparability and high recognition levels.

The catalogue of environmental consultancy criteria based on the 40-point catalogue is a preliminary stage of the EU Eco-Management and Audit Scheme (EMAS). Accordingly, the DEHOGA has developed an environmental CD which contains an upgraded version of the analysis program, a guide to EMAS and the respective laws as well as a list of the businesses that have been certified according to EMAS / ISO 14000 to date. The CD also provides information on the competition itself, Local Agenda 21, and the environmental declaration of leading associations and organisations in the German tourism trade.

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## **DRV Environmental Ideas Competition**

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The Association of German Travel Agents and Tour Operators (DRV) held an environmental competition for travel agents in the December 1999 issue of the magazine START in co-operation with the Federal Ministry for the Environment, the two tour operators Studiosus Reisen and TUI, and the travel sales system operator START AMADEUS. The jury judged the entries in two categories. In the first, prizes could be claimed by travel agencies that had already implemented environmental protection measures, whereby the measures were determined and assessed by means of questionnaires and random on-site surveys. In the second, awards were made to travel agency employees submitting innovative business-related environmental protection ideas that go beyond conventional measures in this area. Cash awards totalling DM 12,000 beckoned the winners.

The DRV also provides its members with a concrete guide to environmental check-ups in the form of a newly issued brochure titled DRV-Umweltempfehlungen für Reisebüros, Reiseveranstalter und touristische Anlagen (DRV's Environmental Recommendations for Travel Agents, Tour Operators and Tourist Facilities). The brochure contains tips on how to introduce environmental pro-

tection measures in one's own firm, and how to ensure that own tourism programs pass the environmental check-up.

Above and beyond this, analysis of the environmental protection questionnaire that DRV has sent out to over 100 airlines is to provide information on the current status of environmental protection among air services.

The questionnaire queries such aspects as kerosene consumption, air fleet exhaust emissions, the implementation of operational environmental management, and the use of two-way systems on board the aircraft. The results are to be published in an initial study in the year 2000, and be made available to DRV members.

# The environmental concept of the “forum anders reisen” association

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The best practice example demonstrated by the “forum anders reisen” association does not concern the travel programs offered by member businesses but the work of the association itself. Its consistent commitment to sustainable tourism is strongly recommended as being worthy of imitation.

## The environmental concept

The “forum anders reisen” association (Forum for Alternative Travel) was founded in January 1998. Membership increased from twelve to 66 businesses over the first two years and the member’s aggregate annual turnover is reported at over DM 100 million. The association has set itself the aim of supporting the idea of sustainable tourism on both a practical and political level, namely internally among its members, and in the public arena on the level of industry and tourism policy debate. “forum anders reisen” sees itself as a network for strengthening small tour operators and travel agents and improving the way in which they communicate their services to the public. The association defines “small tour operators” as consisting of travel businesses with an annual turnover of less than DM 5 million. All the members agree to adhere to a strict and detailed catalogue of criteria in line with the principles of sustainable tourism.

## Preamble to the catalogue of criteria

- All members shall strive to achieve a form of tourism that is ecologically justifiable over the long term, economically feasible and ethically and socially just in terms of the local communities involved (sustainable tourism).
- Members of “forum anders reisen” are tour operators and travel agencies that have made it their task to offer special quality travel. Quality in this connection

consists of particularly intensive experiences and the recreation aspect of the tours, as well as ecological and social compatibility.

- Members shall consider the effect of their travel programs on nature and the environment both when planning them and in their execution.
- Members (tour operators) shall seek positive relations with indigenous people in the destination areas, contractual partners, employees, customers etc.
- A sense of environmental and social responsibility must rank equally with ecological criteria.
- The members shall respect each other as co-competitors and engage in fair business practices.

Transportation is a key consideration in terms of environmental compatibility. Environmentally-friendly travel to the destination by train or bus is preferable, and use should be made of public transport once at the destination. Air trips are regarded as problematic because they make a substantial contribution to pollution in general, as members are aware. With regard to this point, the catalogue of criteria clearly states the following: “No flights are to be offered to destinations less than 700 kilometres away. In the case of flights between 700 and 2,000 kilometres in distance, the length of stay should be at least eight days, and alternative forms of travel should be suggested along with price details. The length of stay on flights covering distances of over 2,000 kilometres should be at least a fortnight.”

Members equally undertake not to offer travel to particularly sensitive areas and to pay attention to such aspects as avoidance of waste and the husbanding of energy resources. Rules also apply to the selection of hotel and restaurant operations, with preference being given to small businesses run in an environmentally-friendly manner and using regional produce. Motorised

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sleigh tours, heli-skiing and off-road tours by cross-country vehicle or motor-cycle are not permitted.

Sustainable tourism also takes into account the social compatibility of a tour. For "forum anders reisen" this means that guided group tours should not number over 20 people. At the destinations, care must be taken to ensure that service-providers are paid a fair price, and long-term contracts should be made wherever possible. Tour operators are called on to make extensive use of infrastructures typical for the region in question. Trips to ethnic groups that put themselves "on display" for the benefit of tourists are to be avoided.

Members of "forum anders reisen" are aware of their responsibility towards their clients and seek to provide intensive holiday experiences of high recreational value. Members are called on to scrutinise offers in terms of their environmental and social compatibility and provide the relevant information in their catalogues. The holiday region must be depicted in a truthful manner, and detailed information must be provided on the services involved.

The provision of so-called energy indicators stating how much energy is consumed by a means of transport on the trip to and from the destination and during the actual stay is a new departure in the tourist trade. In this respect, "forum anders reisen" uses the programme devised by the Federal Federation for Environmental and Nature Conservation (BUND) to calculate the consumption of energy in holiday travel.

Members working as travel agents must ensure that the tours they offer satisfy the association's criteria, and they must also be well-informed to be able to offer expert consultation. This should be supplemented by descriptive information material.

The system for monitoring adherence to the criteria is applied by a committee, which consists of three individuals from three different member businesses working in cooperation with an advisory committee. The external advisory committee is made up of

neutral persons from academic circles, environmental protection organisations, the press and ministries, and assesses members' catalogues in collaboration with the managing board.

The monitoring system consists of six elements:

1. Questionnaires sent out to members
2. Statement made by members regarding adherence to criteria, and regarding their responses in the questionnaire
3. Selection of differing key topics every year
4. Declaration of "critical" tours by members
5. Random sampling by the monitoring committee
6. Agreement on the monitoring system with the external advisory committee.

Every year, "forum anders reisen" publishes a brochure featuring a selection of members' offers.

The main goal of "forum anders reisen" is to demonstrate that ecologically compatible and socially responsible forms of tourism can be offered alongside mass tourism and package deals. In this respect, the association fills a pioneering role vis-à-vis large-scale tour operators.

# Best Practice Examples: Tour Operators

## Long-haul travel by train and ship

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The company Lernidee Reisen organises adventure and educational tours, and also offers a large selection of rail routes based on scheduled services in Russia and Asia. It is probably one of the first five tour operators in Germany in which the ratio of “travelled rail kilometres per passenger” to “flight kilometres per passenger” tends substantially in the direction of rail travel.

### Innovations in non-flight long-haul travel

Lernidee Reisen is a member of “forum anders reisen”, and thus meets the association's criteria for ecologically acceptable travel. Above and beyond this, it is also the only operator on the German market to offer long-distance travel around the world on the sole basis of trains and ships (particularly freighters) and not aeroplanes. Journeys can be made this way, for example:

- along the eastern coast of Africa and by train to Cape Town
- around the world in 75 days without the need to board an aircraft
- by train and ship to major Russian cities
- around the whole of America in 72 days
- with the Trans-Siberian Railroad to Lake Baikal.

The journeys are put together according to the destination in question and the client's wishes.

These days, freighters do not require passengers to forego creature comforts, since they provide full board and accommodation in modern, comfortable two-berth cabins, whereby single-berth cabins are often available against a surcharge. Many freighters feature an indoor swimming pool and a sauna as well as fitness, TV and day rooms. Many ships even operate a small library, and provide deck chairs for passengers as well as steward services, a towel and bed linen service, a washing machine, and so on.

Since planning such ‘customised’ journeys on the basis of rail and shipping services requires consultation of timetables from all over the world, it is a painstaking process and thus entails a service charge of DM 150, which is subtracted from the price if a journey is booked. Moreover, a 24-hour emergency line is kept open for clients during the whole length of the journey.

### Planned innovations in the eco-tourism area

Lernidee Reisen has concluded a deal with the Department of Geography at Moscow State University concerning an ‘Eco-tourism in Russia’ joint venture. Features such as a winter hotel made of ice, special expeditions on the subject of Russian ecology and so on, are planned as part of the deal.

# GRECOTEL

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In 1990, the German travel group TUI set up an in-house Environmental Department, making it one of the first tour operators in the world to do so. Taking a cross-company approach and using strategic objectives, the department works on the continuous improvement of environmental quality both within TUI itself as well as at TUI travel agencies, the hotels and holiday clubs it takes under contract, the destinations involved and the products themselves. The short-term objective is to reduce environmental impact in accordance with sustainable development, and the long-term one is to prevent it altogether.

The environmental measures carried out by hotels, for example, are determined and assessed once a year on the basis of appropriate criteria catalogues, guest surveys and respective check-lists. Outstanding results are published in TUI customer information material under the heading "Environmentally-compatible hotel management".

## **Grecotel as a best practice example**

Grecotel, which is a TUI Group company, runs 16 hotels in Greece, making it the largest chain in the Mediterranean country. In 1992, Grecotel was the first hotel chain in Greece to set up an in-house environmental department, namely the **Grecotel Environmental and Cultural Department and Landscape and Agricultural Section (AGRECO)**.

One of the first measures taken to improve the standard of catering was to provide special training to kitchen staff with the aim of introducing menus with a balanced mixture of dishes.

Over four years ago, Grecotel went on to found its own agricultural project, which initially was occupied with examining the possibilities for cultivating organic vegetables for hotel use. In 1995, an organic market garden was set up in Crete as a pilot project, and since spring 2000, all the fresh

vegetables used in the eight Grecotel hotels on the island stem from organic cultivation. This means that over 50 different types of vegetables have to be produced continuously between March and November. Production is monitored by the Landscape and Agricultural Section, an arm of the Grecotel Environmental and Cultural Department.

Grecotel's most important goals in this area are as follows:

- Parallel development of tourism and agriculture at Grecotel hotel locations
- Production of healthy produce not involving the use of chemical fertilisers and herbicides
- Minimisation of transport costs and energy input
- "Spreading the message" about organic farming as a healthy means of growing vegetables.

The Grecotel market gardeners share their knowledge about organic forms of cultivation with farmers wanting to participate in the programme. Regular inspections and instruction help produce harvests of the highest quality.

## **The Environmental Network and environmental monitoring**

An on-going and continuous reporting system is a prerequisite for determining and improving the environmental situation in holiday regions. For this reason, an Environmental Network has been set up at TUI under the name of TUN, in which employees, contractual partners, environmental experts, tourist agencies, tourist authorities and international environmental resources work together on reporting and solving environmental problems. An important role is played in this environmental monitoring effort by the environmental reports submitted each year by the various holiday regions. They are drawn up at the responsibility of the destination managers and are aligned to the environmental criteria formulated by TUI for holiday destinations. The informa-



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tion culled in this way is entered into the TUI environmental database and used in the customer information details provided on the respective holiday regions.

### **The Ultramar Dominicana best practice example: Whale-watching**

In 1995, TUI removed whale- and dolphin-watching excursions from its programme for the Dominican Republic as it could no longer be guaranteed that the animals were not endangered by these excursions. This decision found the support of the TUI destination agencies Ultramar Express Dominicana and Ultramar Express, and the measure was put on hold until an effective protection concept could be found for the animals. Talks with WWF and "Centro para la Conservación y Ecodesarrollo de La Bahía de Samana y su entorno" (CEBSE), a local environmental organisation particularly concerned with the protection the whales and dolphins in Samana Bay, led to the de-

velopment of a species-appropriate excursion programme. Given that the protection guidelines put forward by this programme are adhered to, nothing speaks against re-introduction of the whale- and dolphin-watching excursions. At the same time, the measure helps support CEBSE as the instance for monitoring adherence to the guidelines.

### **First steps in the direction of EMAS**

At the beginning of 2000, the TUI Group signed a co-operation agreement with ÖKOPROFIT Hannover 2000, a project in which ten selected businesses in the Lower Saxony capital set themselves the goal of reducing environmental impact by improving their environmental measures and participating in an active exchange of experience as pioneers in this respect. Participation in the project represents a first step in the direction of the European Union's Eco-Management and Audit Scheme (EMAS).

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## **Environmental management system**

In the years between 1995 and 1998, the German tour operator Studiosus Reisen implemented an environmental management system in keeping with the EU Eco-Management and Audit Scheme (EMAS) and DIN EN ISO 14001, and went on in May 1998 to have it certified by an independent environmental expert authorised by the Deutsche Akkreditierungs- und Zulassungsgesellschaft für Umweltgutachter (DAU), a company set up by leading German industrial associations to accredit and authorise environmental experts for EMAS validation. The Environmental Management System has been set up to ensure that the environmental commitment of Studiosus Reisen does not exhaust itself in short-term activities but rather can be sustained over a long period. This is enabled by integration of data collection, monitoring and the implementation of measures into the company's operations in an automatic process.

### **The special Studiosus approach to EMAS implementation**

At the time when Studiosus Reisen decided to participate in the Eco-Management and Audit Scheme, the directive was not yet applicable to tour operators as service businesses, and only became so when its scope was expanded in January 1998. Between 1995 and 1997, Studiosus took the classical EMAS steps, such as determination of environmental policy, formulation of environmental goals, environmental auditing, drawing up an environmental programme and introduction of an environmental management system in appropriate form for a tour operator. In the process, an eco-audit team was formed, the specific problems of a service business were formulated, and the scope of the necessary analysis activities was determined. This involved the intention of analysing not only

the company headquarters but also the travel products themselves, developing questions and tools for both the non-tourist and tourist aspects of classical destinations, and inclusion of the aspect of social compatibility. In order to ensure the credibility and relevance of the findings, the individual steps of the audits were not to be restricted to the company headquarters alone since the environmental impact caused by a tour operator is mainly caused in connection with the tours and not so much at the company itself, as in the case of manufacturing firms.

### Scope of analysis

The scope of analysis was deliberately restricted to operations that the company performs itself or can influence to some extent since it otherwise has only a very indirect say in such matters as accommodation, catering, transportation and other aspects of holiday products. For this reason, the decision was taken to integrate all upstream and downstream elements that Studiosus can influence by at least 50 percent into the eco-audit and the Environmental and Social Compatibility Programme. The Administration and Tours organisation units of the subsidiary Studiosus Reisen Munich GmbH were chosen by the Studiosus Group to be the objects of auditing and certification, but not the front-office sales area (holiday centres) or the group travel subsidiary, which can undergo separate audits at a later date. The Administration unit, a non-product area, covers human resources management, IT, and Marketing and Communication/Information (business ecology), while the Tours unit is a product area and involves the modules Planning and Execution (travel destinations, routes and programmes), Transportation, Accommodation, Catering and Tour Management. The Environmental and Social Compatibility Programme is also conducted on the basis of this organisational structure.

### Environmental audits

The data collection and monitoring involved in the environmental auditing is carried out on the basis of checklists concerned with environmental protection in hotels, coaches, airlines, and ships and ferries. Tour manager reporting and the annual reports submitted by Product Management and department heads are also taken into consideration.

#### Organisational Structure

- **In-house Environmental Committee:** Involves employees from various departments who initiate measures concerned with achieving environmentally-compatible office design.
- **Tourism Environmental Committee:** Involves employees from various departments who regularly meet to discuss environmentally-relevant tourism issues.
- **Committee for Socially-Compatible Travel:** Involves employees from various department who regularly meet with tour managers to discuss all issues concerned with the social compatibility of educational travel.
- **Studiosus Advisory Council:** This consists of a consultative body made up of noted representatives of associations and organisations who meet once a year to discuss questions concerned with ecological and social responsibility.
- **Environmental Management Representative:** This concerns a member of the Management Board assigned with overall responsibility for adherence to the goals.
- **Environmental Department:** This consists of a staff unit that assists the Environmental Management Representative by co-ordinating and implementing the Environmental Management System and the Environmental and Social Compatibility Programme.

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## **The aims that the Studiosus Environmental and Social Compatibility Programme seeks to achieve by the end of 2000**

The programme is concerned with the implementation of environmental policy by means of concrete and quantifiable goals and individual measures. It covers both the tourist and non-tourist areas and is made up of the following elements:

### **Product ecology area:**

- Increased consideration of the interests of host populations by holding at least seven "Host Population Forums" every year (one per Regional Manager)
- Improving the transport energy balance (in mega-joules) per customer by 3 percent
- Achieving a 3-percent increase in the number of used Rail-and-Fly tickets by improving catalogue information on local transport connections
- Supplementing alternative travel tours by at least five tour series within Europe
- Increasing the percentage of rail travellers to destinations within the European Union from 11 percent to 14 percent
- Increasing the amount of two-way or compostable catering crockery used by German-based coach businesses by 100 percent
- Consistently expanding the "Stop the engine" campaign (designed to stop idling engines) by at least ten new coach companies a year
- Optimising the questionnaires on environmental protection for hotels, language schools, airlines, coach agencies and shipping lines, and collecting and analysing the respective data in a two-year rhythm.
- Increasing the amount of hotels involved in the Fewer Fresh Towels Campaign (currently 50) by 30 percent a year

### **Operational ecology area:**

- Reducing the amount of catalogues per travel participant and product line by 10 percent
- Replacing at least 90 percent of the paper used at Studiosus with materials produced according to processes acknowledged to be environmentally compatible

### **Staff training and information**

- Continuous provision of further and advanced training to tour managers in the form of seminars held on the environment, natural history and social responsibility
- Including the issue of environmental protection in management seminars
- Holding an annual in-house Ecology and Social Responsibility Day
- Providing trainees with instruction once a year on environmental and social responsibility
- Providing regular instruction to new staff members

# Water conservation campaign in Tunisia

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The idea for this campaign arose in 1994 as part of the first analyses that the environmental management department of the German tour operator Neckermann conducted on the environmental situation of Neckermann hotels and clubs in Tunisia. The discrepancy between the country's water scarcity situation and levels of the consumption determined in the hotels gave rise to the idea of introducing measures to encourage more economical use of the precious resource. The "Water Conservation" campaign was developed as a consequence.

The objective of the campaign was to achieve a 20 to 40 percent reduction in water consumption without incurring an undue loss in comfort, namely through information and motivation of both hotel guests and hotel staff. The technical prerequisites had been installed previously in the form of new gaskets and water meters. The water-saving campaign was thus to familiarise staff and guests with the possibility of a more economical use of water without the necessity for any further major investments.

Along with the provision of staff instruction at every level, the main focus of the campaign was placed on informing and motivating the guests. Stickers, T-shirts and information brochures were especially organised along with an exhibition and provided to the guests.

The daytime, evening and children's animation programmes were devoted to the subject of water conservation, and familiarised the guests with the topic in a humorous and entertaining way. The campaign was complemented by competitions and quiz events, and guests were also able to take part in a prize draw for a two-week holiday by filling out a questionnaire.

## The results of the campaign:

After the one-month campaign, the average water savings amounted to 25.3 percent in comparison to the previous year.

The guest poll revealed the following:

- 100 percent of the guests did not experience a loss in comfort through water conservation
- 99.7 percent of the guests used less water during the campaign as the result of a more conscious approach to its use
- 93 percent of the guests found conserving water important
- 94.3 percent of the guests were prepared to accept a slight loss in comfort in connection with water conservation.

The campaign was conducted with similar success in hotels and clubs on the Balearic Islands in 1995.

Above and beyond this, the water conservation campaign in Tunisia contributed towards the fact that when guests arrive at hotels, they are provided a brochure drawn up by the Tunisian government on the scarcity of water in the country. The brochure, which is available in a variety of languages, including German, also provides details on how to conserve water and energy and includes information on various other environmental protection and nature conservation activities in the country.

This example shows that information and interaction makes it possible to encourage environmentally-friendly behaviour in hotel guests without having to take a moralising approach.

# Best Practice Examples: The Hospitality Trade

## The first EMAS-certified hotel in Germany

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The Bartholomä Sport and Education Centre is a 200-bed seminar hotel located about 60 kilometres east of Stuttgart in south-west Germany. The Schwäbisch Gmünder Ersatzkasse (a health insurance scheme) and the Schwäbische Turnerbund (a sports association) are the funding institutions of the two operations – two hotels with a conference centre. This results in an unusual occupancy structure made up to 90 percent of groups and 10 percent of individual guests.

The present proprietors bought the bankrupt operation by the name of “Turnerheim” (Gymnasts Hostel) in 1987, and from this time on, every effort was made to achieve realignment in the direction of resource-conserving business management. In May 1998, the sport and education centre became the first hotel in Germany or even Europe to undergo certification according to the European Union’s Eco-Management and Audit Scheme (EMAS). In January 2000, the Baden-Württemberg Ministry for the Environment awarded the seminar hotel a distinction for exemplary achievements in the area of environmental protection.

The management aligned its efforts in this respect to the 40-point catalogue drawn up by the German Hotel and Restaurant Association (DEHOGA), which it has continuously helped modify since 1995.

### **Produce from the region and the hotel’s kitchens**

In purchasing, the hotel makes preferential use of regional suppliers, meaning that 60 percent of its dining-room products stem from within 60 kilometres of the hotel, with

25 to 30 percent consisting of organic foods. The kitchen attaches great importance to home-made wares, and makes two-thirds of the meals itself, including all the cake, bread and pasta.

The implementation of environment- and resource-conserving hotel management has mainly been achieved in the form of a great number of small individual measures continuously deployed and supplemented since 1987. In the process, care has always been taken to ensure that each measure makes economic sense and does not entail a loss in comfort for the guests.

### **Information and active guest integration**

The hotel naturally wants its guests to enjoy their stay on every level, and sees this as involving sufficient movement, recuperation and relaxation, correct nutrition and an intact environment. The management is at pains to encourage environmentally-conscious behaviour on the part of its guests and to inform them about the hotel’s own efforts in this respect. A figure known as “Environment Max” reminds guests to switch off the light when they leave their rooms, and six different refuse containers with easy-to-follow use instructions are located in the hotel corridors. The foyer of the hotel features illustrated information on the origins of the produce served in the dining-room. Competitions are also held to encourage guests to make suggestions on how to improve environmental protection in the hotel. The winners are rewarded with a free weekend in the hotel, complete with all amenities.

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## The facts speak for themselves

Over the years, the hotel has realised from experience that practically all resource-conserving measures make economic sense, as the following examples show:

- The hotel uses foodstuffs in bulk packs and involving two-way packaging in the dining-room, and has calculated the savings made during a whole year on ten products ranging from evaporated milk and yoghurt to milk and sugar. The results: Savings of DM 34,000 at 6,500 dining-room guests and a total of 22,000 overnight stays.
- Once a month, the janitor dusts the vents on the refrigeration units. Clean refrigeration units only need to run in active mode twelve hours a day, whereas this figure can increase to 24 hours a day in the case of dusty units. As a result of this measure, up to DM 10,000 is saved a year.
- With the help of a power use monitoring system, the hotel found that peak consumption takes place between 7 and 8 a.m. every day. Twelve circulation pumps and other devices are now automatically turned off during this time by time switch clocks.
- The hotel does not make use of air conditioning. Air extraction systems are used instead in the kitchens, the dining-room, bathrooms and toilets, and the staff and guests are encouraged not to leave windows open but rather to air rooms thoroughly but briefly.
- The installation of flow-restricting devices into the showers has reduced water consumption from 20 litres a minute to 7 litres. Water-saving aerators have now also been installed into the wash-basin faucets, reducing the flow of drinking water to 2 litres a minute.

## Ecological suppliers

The hotel has also arranged for the business that takes care of much of its laundry needs to wash linen according to the following principles:

- Washing cycles are to be set at a maximum temperature of 60°C
- Use of phosphate- and bleach-free detergents only
- No use of fabric softeners
- Preferable use of modular-system detergent

In its own laundry operations, the hotel does not make use of the prewash cycle, or multi-purpose detergent and fabric softeners.

All suppliers must guarantee to take back transport packaging and replacements.

## Ecologically-appropriate vegetation

The hotel has mainly made use of indigenous species for the design its outdoor and garden areas. The car park is divided up by shrubs, and the new terrace has water-permeable surfacing. Herbs for use in cooking are grown in the hotel garden, and use is not made of mineral fertilisers.

The hotel composts organic waste itself, and uses it in the wooded areas of the hotel grounds. Alternatively, the hotel staff can help themselves to the compost for private use.

## Environmental information for the staff

A properly functioning environmental management system (EMS) and motivated members of staff are an importance prerequisite in all these measures, whereby the EMS has to deliver qualitative and quantitative findings for future meaningful measures and investments. Each year, DM 10,000 of the budget of the sport and educational centre is set aside for environmental protection measures. Notices, in-house further training measures and competitions instruct and motivate the staff accordingly.

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The staff's working capacity is regarded as a valuable resource. Accordingly, the 35-hour week was introduced at the hotel in 1989 along with a time registration system and flexible working hours. The staff does not work overtime in order to enable the creation of new jobs.

### **“Ostalb Mini-Chefs” project**

The “Ostalb Mini-Chefs” were introduced as a special type of project in 1997. The goal of the project is to provide children a positive idea of the profession of chef or caterer and at the same time acquaint them with the idea of husbanding natural resources.

Participation in the project is free of charge and is financed by the project initiator. The mini-chefs meet once a month for an afternoon, which has three main focuses:

- One hour devoted to all aspects of healthy nutrition
- Working in the kitchen or restaurant
- Eating everything that is cooked in the course of the afternoon and playing

All the mini-chefs are clothed in caps and jackets like the adults in the kitchen, and wear the usual outfits of waiters and waitresses for restaurant tasks.



As part of the experience-oriented pedagogic concept, a seasonally-appropriate activity programme guides the children from sowing and cultivating plants to harvesting and preparing foods and serving the resulting dishes.

The year is brought to a close with the children serving a menu to parents and experts. At the end of the first year, this consists of a one-course meal, at the end of the second year a three-course meal, and at the end of the final year a five-course meal.

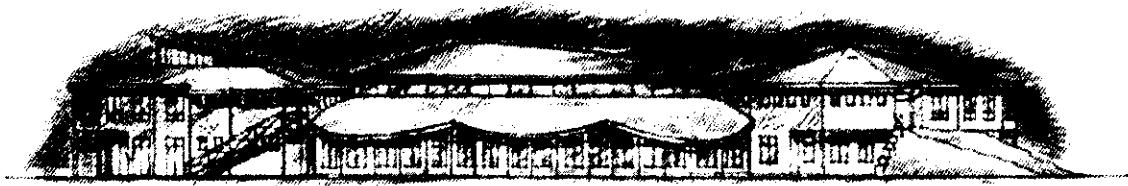
For the children, the grand finale takes place with acknowledgement of completion of a 36-month prevocational course in the form of a certificate from the local Chamber of Trade and Commerce.

## **Mirow 21**

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“Mirow 21” refers to the creation of a youth hostel designed and run according to social-ecological criteria in Mirow, which is located a few kilometres away from Lake Müritz and Müritz National Park in the heart of the Mecklenburg lake region. Work is currently in progress on the construction of the youth hostel at a site located on the shore of Lake Mirow in a peaceful natural landscape.

The architecture of the forward-looking project is consistently aligned to the principle of sustainability, and is the result of an intensive dialogue between future users, educationalists, hostel managers and energy experts. It takes ecological and economic factors into consideration as well as the well-being of its future users and their communication needs.



The grass-covered main buildings features two side wings that are almost circular in shape. These side wings are linked by a forum area that leads on to three fractal-shaped seminar rooms. The upper story on each of the wings accommodates living, sleeping and communication areas for a whole school class each.

The remaining 50 of the 120 beds are located in five separate bungalows at the south



of the site. These are to be made experiential in character by representing the elements of fire, water, air and earth, for example, in terms of spatial design, materials and colours.

The Mirow 21 project is an attempt to demonstrate sustainable ways of living on an everyday basis, whereby the concept seeks to enable self-organised, team-oriented and discovery-based learning that links the experiences made by the guests themselves. The six-sided design of the seminar rooms takes the latest findings of communication and learning ecology into consideration, and provides niches that enable seclusion and concentrated work in small groups as well as round-table discussion and conferences. The design, which is to be a model for sustainable school archi-

ture, is being executed in Mirow for the first time.

### The energy concept

A sustainable energy concept tailored to the youth hostel will ensure the provision of energy for Mirow 21, and involves the following main characteristics:

- Application of the low-energy house standard to the new main building and the rebuilt bungalows. This is practically complete in the case of the main building and is to be achieved in the case of the bungalows by the time they are completed.
- Deployment of a solar thermal system for water heating purposes and to help heat the rooms in the buildings.
- Establishment of a practically CO<sub>2</sub>-neutral power supply centre based on use of regional renewable resources and involving a modern wood-chip furnace (for combined heat and power) in connection with a solar thermal system.
- Provision of all buildings via an economical low-temperature heating network with heating generated powered by biomass and solar energy.

The provision of energy is to be made transparent to guests and visitors in a variety of ways, some of them experiential. The forward-looking concept is to be made tangible and demonstrable through direct and indirect integration of the ways in which the resources are used into the youth hostel activity programme.



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## **Operational organisation**

### **Team orientation**

The new youth hostel in Mirow will be coordinated by a management team equipped with a great deal of discretionary power on management issues. This form of decentralisation and self-organisation also applies to the individual team members within their areas of responsibility.

### **Ecological management**

Mirow 21 is to be run according to the principles of consistent, environmentally-oriented business management. In the nutritional area, organic produce is to be mainly used and preferably bought from within the region.

## **Youth Hostel Project for the Future**

The Mirow 21 project is part of the Youth Hostel Project for the Future initiated in 1998 by the head organisation of the German Youth Hostelling Association (DJH). This concerns a marketing and sponsoring campaign designed to showcase three major projects involving the principle of sustainable development:

- Mirow 21 – Construction of a new youth hostel in Mirow
- “GUT DRAUF“: A world-wide EXPO project being realised at Brilon Youth Hostel
- TOP TEAM NaTOUR: Categorisation of youth travel that meets the requirements of sustainable development

These projects, which are all sponsored by the German Federal Foundation for the Environment, are supplemented by areas of action that actively support Agenda 21 processes in the DJH, namely:

- environmental study places
- GUT DRAUF
- Sunday-Funday

“GUT DRAUF aber natürlich” (In Good Form the Natural Way) is the motto of a

### **Healthy and delicious catering**

Catering adapted to the preferences of young people is to be integrated into the range of relaxation, movement and educational activities offered by the hostel, and is to be both healthy and delicious. Trend dishes are to be upgraded through the use of healthy ingredients and adapted to the preference of young people in the ways in which they are served. Guests can join in making the food and decorating the dining room if they please.

### **All-inclusive quality management**

The youth hostel is to conduct a regular check-up of itself according to social, ecological and economic sustainability criteria and thus ensure that it continues to develop steadily along the lines of sustainable development.

project in which the DJH seeks to ensure the well-being of its guests along consistently ecological lines. The goal here is to upgrade the quality of life experienced at DJH hostels while improving environmental quality at the same time. This concept is to be tested at Brilon Youth Hostel.

The background of the project is the conviction that ecological ways of life will only find the broad acceptance they need by involving a lot more fun and bringing about improved quality of life. At Brilon Youth Hostel, where the concept is to be tried out, two endeavours are to be realised at once, namely ensuring that guests enjoy their visit, and ensuring that they are able to live along consistently ecological lines during their stay. This entails the use of regenerative energy, particularly in the form of solar energy, and catering according to the motto “Healthy and Delicious“.

Together with the DJH task force on environmentally aware youth travel, the DJH has also initiated “TOP TEAM NaTOUR“, a project designed to categorise travel for children, young people, families and school

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classes. Its most important goals are as follows:

- Development of a suitable quality profile for youth travel
- Development of a nation-wide seal of quality for youth travel
- Implementation of a travel competition for children, young people, families and school classes, and intensification of the market viability of "sustainable" travel offers for children and young people
- Qualification of tour operators and tour managers in the area of youth travel

The first time the competition was held, namely in 1998, the DJH entered 27 travel offers, of which eight were short-listed. All 79 travel offers are marketed in a catalogue and also on the Internet at [www.topteam-natur.de](http://www.topteam-natur.de). The main winners were presented at the ITB, an international tourism fair, in 1999.



## Brombach Camp Site

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Brombach Camp Site (Waldcamping Brombach) is located close to Pleinfeld, 35 kilometres south of Nuremberg, and is situated in the middle of a wood a mere 800 metres away from the Grosse Brombachsee lake. In April 1998, it was the first camp site in Europe to undergo certification according to the European Union's Eco-Management and Audit Scheme (EMAS) as well as DIN EN ISO 14001. The latter is the international counterpart of EMAS, but the criteria applying to ISO 14001 are less strict than those of the EU regulation.

The camp site has engaged in active environmental protection for many years. In 1997, this included installation of a grey water tank facility, which collects rainwater and slightly soiled shower and washbasin wastewater and feeds it into toilet cisterns for use in flushing. A third of the toilets are provided with the wastewater, which is not

normally put to further use, in this way. A further sanitary building offering separate showers for children was built three years ago, and despite the increase in overnight stays – which now total 100,000 a year – water consumption has declined constantly over the past five years.

Warm water is provided by solar facilities installed on some of the roofs of the buildings, thus reducing energy consumption. In 1999, for example, energy consumption amounted to a mere 3.7 kW/h per overnight stay. Guests are also provided a bill showing their electricity consumption to encourage power saving.

As can be expected, refuse is disposed of in separate containers. The camp site shop sells organic products, and non-returnable packaging has become a rarity.

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## Services for guests

The camp site provides visitors with information on where produce can be bought from farms in the area, and offers a free shuttle service to campers arriving by train. Guests can explore the region without a car with the help of the Mobi-Card. This can be loaned at the camp site office for a small fee and is valid for families from 9 a.m. on throughout the whole of the local transport network, which reaches from Nuremberg to Eichstätt. Bicycles can be loaned nearby to explore the beautiful Franconian countryside.

The camp site offers a holiday and recreation programme featuring magicians, yoga and baking bread on sticks for children.

Guests wanting to learn how to brew beer while they are on holiday can do so at Neumarkter Lammsbräu, the smallest eco-brewery in Europe.

## Solar filling station for an electric trolley

In order to ensure that the environmental situation continues to improve, Brombach camp site has set itself new goals for 2000. Members of the staff will soon be using an electric trolley to move from one end of the camp site to the other, and will refuel it at the camp site's solar filling station. It is also being considered whether it will be possible to convert to a photovoltaic system when new street lamps are installed.

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## Alternative energy resources for Aachen Land-Süd Service Area

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The Aachen Land-Süd service area is located near Eschweiler on the A4 autobahn from Aachen to Cologne. The rotor of the service area's wind power plant can be seen from afar, and is the most conspicuous sign of the fact that a service area with a difference awaits guests.

The old service area was rebuilt back in 1992, and the building now has a glazed forebuilding and a green roof measuring 400 square metres in size. It provides room for 284 guests, and was used by half a million people to break their journey in 1999.

### Environmentally-friendly power sources

An info computer terminal inside the rest house furnishes information on the specifications of the wind power plant, which provides about 40 percent of the power required for service area operation. In phases with strong winds the two-stage generator

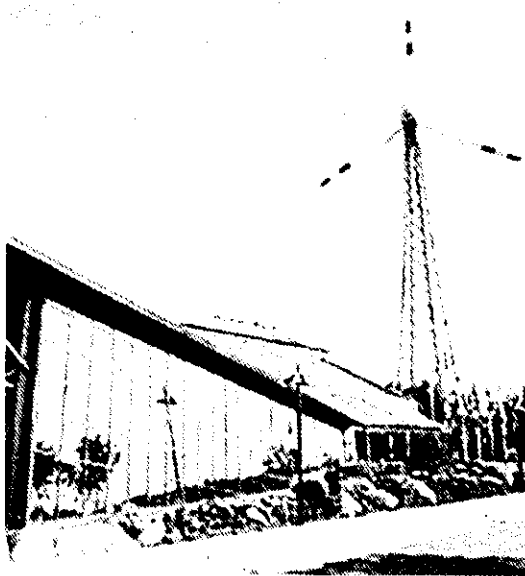
produces a maximum of 250 kW, and in weak-wind phases maximum 45 kW. This adds up to an average of 290,000 kW/h a year, which is fed into the grid.

The second environmentally-friendly source of energy is not visible to guests, being a combined heating and power station fuelled with heating oil to cover the service area's remaining electricity requirements. It supplies a continuous mechanical output of 96 kW at 1,500 rpm. The surplus heat produced by the power station is used for heating purposes in winter. In summer it is transformed into cold by means of an absorber process to cool the rooms used by the guests.

### Rest and movement

In collaboration with the ADAC, a German automobile association, the Aachener Land-Süd service area set up a 1.5 kilometre circular trail with keep-fit stations and

panels on the history of the Eifel region 15 years ago. A children's playground is located outside the rest house, and an indoors play corner can be used as an alternative in bad weather.



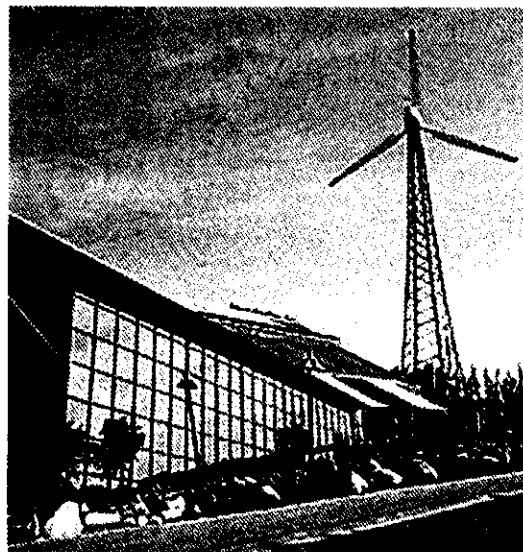
### Integral concept

In March 2000, the Aachener Land-Süd service area completed certification according to DIN EN ISO 9001. The operator of the service area also uses this instrument, which is actually devised for quality assurance, as an environmental management system. In his eyes, quality, hygiene, occupational safety, environmental protection and guest and staff satisfaction are all part of an integral whole. For example, the workplace descriptions in DIN EN ISO 9001 contain not only occupational safety and hygiene instructions but also ecological specifications.

A daily staff training concept has also been developed by the company manager, and has been adopted by the German Hotel and Restaurant Association (DEHOGA) of Bonn for all motorway service areas. The concept explains in 300 steps all the details that staff members have to consider in their work.

### Outlook

Further projects are planned for the year 2000. With the help of the Federal Ministry of Transport, the new lorry parking area that is to be set up behind the rest house is to be equipped with power connections for refrigeration lorries. This is to avoid the additional exhaust and noise caused by engines running at idle to power the refrigeration units. In other projects, a pergola with lighting supplied with electricity from a new photovoltaic system is to create an inviting and safe atmosphere for coach travellers, and the coach parking area is to be provided with facilities for chemical toilet waste disposal; finally, the water issuing from the grease trap used for kitchen wastewater is to be fed into a reedbed pond for further purification. Financing models are currently being devised for all the above measures. In all this, the service area seeks to achieve the continuous improvement of its services, taking ecological aspects into consideration at every step.



# Best Practice Examples: Mobility and Transport

## The Mobility Life Cycle Assessment – An initiative of Bahn AG and the WWF

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The Mobility Life Cycle Assessment developed in a co-operative effort by the environmental foundation WWF Germany and the German railroad operator, Deutsche Bahn AG (DB), is to facilitate selection of the right means of transport. The concept takes energy consumption and the emission of airborne and climatic pollutants into consideration along with journey cost and duration.

Primary energy consumption and the emission impact arising from carbon dioxide as the main cause of the greenhouse effect were chosen as environmental parameters for the comparison, along with data on the emission of nitrogen oxides and non-methane hydrocarbons, both pollutants responsible for ozone formation. Sulphur dioxide emissions, which are partially responsible for the acidification of soil and water bodies, were also included.

The project was provided with the scientific support of the Institute for Energy and Environmental Research (IFEU) in Heidelberg, and made use of current energy consumption and pollutant emission data supplied by the Federal Environment Agency, as well as the latest studies on the environmental impact of air traffic drawn up by Rhineland Technical Control Board (TÜV).

The findings are compiled in the brochure *Mobilitäts-Bilanz* (Mobility Life Cycle Assessment), which provides the reader with a survey of the environmental impact of various means of transport by using typical reasons for travel (i.e. commuting as well as shopping-related, business and holiday travel) as concrete examples. The findings reveal rail travel to be the most environ-

mentally-friendly, inexpensive and safest means of transport in comparison to cars and planes. In the area of freight traffic, trains are compared to lorries and inland waterway shipping, whereby the ecological advantages of rail transport again came clearly to the fore.

The findings of the mobility life cycle assessment are available to the interested public on the "Reisen und Umwelt" (Travel and the Environment) computer programme, which can be used to calculate and compare the environmental impact of different forms of transport used by the consumer.

In order to cover the whole of the travel and transport chain, the travel comparison software takes the journey required to reach a railway station or airport into consideration, and can simulate the amount of passengers in a car and the technical specifications of the vehicle involved, thus making it possible to calculate individual energy consumption and pollutant load. The shunting operations involved in freight rail traffic are also taken into consideration.

Given average capacity utilisation, a modern high-speed train consumes the equivalent of two litres of petrol per 100-person kilometre. Moreover, whenever the brakes are applied electric energy is generated and fed back into the overhead trolley wire. In this way, DB was able to save nine gigawatt-hours of electric energy in 1998, which corresponds to the annual consumption of over 1,800 four-person households.

A CD-ROM of the Mobility Life Cycle Assessment by WWF and DB can be obtained

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free of charge as an aid for consumers from DB, Bahn-Umwelt-Zentrum, Schickler Strasse 5-7, 10179 Berlin. The Mobility Life Cycle Assessment and the computer pro-

gramme can also be downloaded at [www.bahn.de](http://www.bahn.de), and the groundwork report („Grundlagenbericht“) of the IFEU Institute can be obtained at [www.wwf.de](http://www.wwf.de).

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## **Computer programme for calculating the energy consumption of holiday trips**

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With the help of a special calculation method, the leisure, sport and tourism task group of the German Federation for Environmental and Nature Conservation (BUND) has developed a computer programme which can be used to calculate and assess the energy consumption of travelling to distant destinations in megajoules per person and day.

The aim of the project is to provide small and mid-sized tour operators in particular with an instrument that enables them to calculate their special travel offers according to energy consumption per trip participant and provide the information in their catalogues. This in turn enables customers to make a direct comparison of trips, means of transport and tour operators.

All the calculations are based on Frankfurt Airport as the point of departure. With regard to air travel, the number of starts and landings play a role, since substantial amounts of additional energy are consumed for these operations, and thus the number of starts and landings involved in a specific route can be entered into the PC. If the journey to Frankfurt is to take place by car, minibus or motor-cycle, the computer divides the total energy consumption of the vehicle involved by the amount of passengers using it for the journey. In the case of air and rail travel, the calculations are performed on the basis of average capacity utilisation (about 60 percent in aircraft and 50 percent in trains).

Since the programme determines personal energy consumption per day, the length of

a trip is of decisive importance. For example, a one-week air trip to the Canary Islands may not be ecologically justifiable, whereas a four-week stay can be justifiable to a certain extent.

Twelve scientific studies on the energy consumption involved in individual means of transport have been evaluated by the BUND task group and taken as the basis for calculating the consumption of energy in German and European means of transport. This enabled the task group to determine the specific energy consumption of individual means of transport in a way that, in the opinion of BUND, comes closest to the real circumstances. Sea voyages have not been included due to the insufficient amount of data suitable for evaluation.

Once all the necessary details have been entered, the programme provides the user with an assessment of the proposed trip, stating whether the personal energy consumption is ecologically justifiable, whether the prospective holiday-maker should reconsider his or her travel plans or whether they should be abandoned altogether. BUND pools the assessments together under the heading of "Sustainability".

The programme can be obtained against a donation of DM 15.- from the following address:

BUND – AK "Freizeit, Sport, Tourismus"  
Rolf Spittler  
August Bebel Strasse 16-18  
33602 Bielefeld.

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## INDEX OF ADDRESSES

### Best Practice Examples: German Protected Areas and Regions

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Bayerischer Wald National Park Administration  
Freyunger Strasse 2  
94481 Grafenau  
Tel. +49/8552/96000 (operator)  
Fax +49/8552/1394

Hesse Administration Office  
Rhön Biosphere Reserve  
Groenhoff Haus  
36129 Gersfeld (Wasserkuppe)  
Tel. +49/6654/96120  
Fax +49/6654/961220

Steinhuder Meer Nature Park  
Hildesheimer Strasse 20  
30169 Hannover  
Tel. +49/ 511/989-2211  
Fax +49/511/989-122227  
Siegfried Siebens (Manager)

Kontor 21  
Altonaer Post Strasse 13a  
22767 Hamburg  
Tel. +49/40/306851-0  
Fax +49/40/306851-23  
Thomas Wilken (Managing Director)

Kopf AG  
Environmental and Power Engineering  
Stützen Strasse 6  
72172 Sulz-Bergfelden  
Tel: +49/7454/75-190  
Fax: +49/7454/75-159  
Joachim Kopf, ext. no.: -288

### Lake Constance Region

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Bodenseestiftung  
Paradies Strasse 13  
78462 Konstanz  
Tel. +49/7531/909866  
Fax +49/7531/909877  
Marion Hammerl and Marco Walter (Bodenseestiftung)

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Mainau GmbH  
78465 Mainau  
Tel. +49/7531/303252  
Fax +49/7531/303273  
Gerhard Worm

## **Best Practice Examples: International Protected Areas and Regions**

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WWF Deutschland  
Rebstöcker Strasse 55  
60326 Frankfurt  
Tel. +49/69/791440  
Fax +49/69/617221  
Günter Merz

WWF Arctic Programme  
c/o WWF Norway  
P.O. Box 6784 St. Olavs plass  
0130 Oslo  
Norway  
Tel. 0047-22036517  
Fax: 0047-22200666  
E-mail: arctic@wwf.no  
Internet: www.ngo.grida.no/wwfap

EUROPÄISCHE Reiseversicherung  
Vogelweide Strasse 5  
81677 Munich  
Tel. +49/89/4166-209  
Fax +49/89/4166-2218  
Wilfried Hildebrand

## **Best Practice Examples: Associations**

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German Tourism Association (DTV)  
Bertha von Suttner Platz 13  
53111 Bonn  
Tel. +49/228/98522-0  
Fax +49/228/698722  
Contact person: Dirk Dunkelberg, Deputy Managing Director

German Hotel and Restaurant Association (DEHOGA)  
Kronprinzen Strasse 46  
53173 Bonn  
Tel. +49/228/82008-0  
Fax +49/228/82008-46  
Stefan Büttner



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Association of German Travel Agents and Tour Operators (DRV)  
Mannheimer Strasse 15  
60329 Frankfurt  
Tel. +49/69/273907-22  
Fax +49/69/236647  
Ute Quintar

forum anders reisen e.V.  
Hirschberger Strasse 48  
90473 Nuremberg  
Tel. +49/911/8932454  
Fax +49/911/8932455  
Roland Streicher (Managing Board member)

### **Best Practice Examples: Tour Operators**

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Lernidee-Reisen  
Duden Strasse 78  
10965 Berlin  
Tel. +49/30/786000-0  
Fax +49/30/7865596  
Managing Director: Hans Engberding, ext. no.: 22

TUI Group  
Environmental Management Section  
Karl Wiechert Allee 23  
30625 Hannover  
Tel. +49/511/567-101- (-6)  
Fax: +49/511/567-1019  
Dr. Wolf Michael Iwand, Director of the Environmental Management Section, ext. no.: -0

Studiosus Reisen Munich GmbH  
Ries Strasse 25  
80992 Munich  
Tel. +49/89/500 600  
Fax +49/89/500 60-100  
Birgit Rettig, Environmental Department  
Tel. +49/89/50060-206

(Neckermann Reisen)  
C&N Touristic AG  
Zimmersmühlenweg 55,  
61440 Oberursel  
Tel. +49/6171/65 00  
Fax +49/6171/652125  
August Swerissen, Tel. 0041-55-4158611

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## Best Practice Examples: The Hospitality Trade

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Bartholomä Sport and Education Centre  
Zum Turnerheim 27  
73566 Bartholomä  
Tel. +49/7173/97020  
Fax +49/7173/97072 00  
Jürgen Mädger (proprietor)

German Youth Hostelling Association  
Marketing /Information  
Bismarck Strasse 8  
32756 Detmold  
Tel. +49/5231/9936-33  
Fax +49/5231/9936-66  
Bernd Lampe (e-mail: lampe@djh.org)

Waldcamping Brombach  
Sportpark 13  
91785 Pleinfeld  
Tel. +49/9144/1721  
Fax +49/9144/6934  
Berthold Sträßle (camp site manager)

Aachener Land-Süd Motorway Service Area  
52249 Eschweiler  
Tel. +49/2403/8771 0  
Fax +49/2403/36211  
Dr. Peter R. Ritter (operator )