

MaGICLandscapes Booklet

Supporting the benefits of green infrastructure
in central Europe and beyond



MaGICLandscapes Booklet - Supporting the benefits of green infrastructure in central Europe and beyond

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Lead Partner

Technische Universität Dresden
Faculty of Environmental Sciences
Chair of Remote Sensing, Prof. Dr. Elmar Csaplovics
Helmholtzstr. 10
01069 Dresden, Germany

Project Partners

Technische Universität Dresden, Germany
Silva Tarouca Research Institute for Landscape and Ornamental Gardening, Czech Republic
The Saxony Foundation for Nature and Environment, Germany
Karkonosze National Park, Poland
Leibniz Institute of Ecological Urban and Regional Development, Germany
The Krkonoše Mountains National Park, Czech Republic
University of Vienna, Austria
Thayatal National Park, Austria
Metropolitan City of Turin, Italy
ENEA - Italian National Agency for New Technologies, Energy and Sustainable Economic Development, Italy

Editors: Anke Hahn, Christopher Marrs

Layout: Anke Hahn

Cover illustration and benefit icons: [Anja Maria Eisen](#)

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Leibniz Institute of
Ecological Urban and
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Introduction

The MaGICLandscapes project was an international cooperation project between ten partners from Austria, Czech Republic, Germany, Italy and Poland and was funded by the Interreg Central Europe Programme as part of the European Regional Development Fund.

The project's focus was on improving green infrastructure, raising awareness of and promoting the uptake and understanding of green infrastructure (GI) as a planning tool within Central Europe. This involved the development of various tools to assess GI at different spatial levels and the creation of nine green infrastructure strategies and supporting action plans in the varied landscapes of the project regions, each with their very different needs and priorities.

GI is not a widely spread or well-known concept or approach within the Central European area, especially so at the regional and local levels of planning and stakeholder engagement. A key element of the project and one of its successes was raising awareness of the GI approach and the many benefits it can provide. This is demonstrated by the successful development and implementation of the nine green infrastructure strategies, fully endorsed by a wide variety of stakeholders, the involvement and support of whom at all stages was instrumental to the success of the project.

This booklet is designed to introduce the concept and how it was implemented within MaGICLandscapes' nine case study areas. It is hoped that the reader can find parallels and associate with the case study areas' employment of GI and perhaps encourage others to consider how a GI approach may benefit their region, cities, towns and communities.

What is green infrastructure?

“A strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services such as water purification, air quality, space for recreation and climate mitigation and adaptation. This network of green (land) and blue (water) spaces can improve environmental conditions and therefore citizens' health and quality of life. It also supports a green economy, creates job opportunities and enhances biodiversity.” (European Commission 2013)

Green infrastructure (GI), nestling amongst the more identifiable grey infrastructure of development, has rarely attracted the same level of interest or investment, at least on the strategic level, with local-level investment often concentrating on a site by site basis taking into account recreational needs or the aesthetic requirements of changing development design trends over the years. Understandably, as settlements expand and change, the strategic potential of green infrastructure has remained a secondary consideration and opportunities have been missed to enjoy and increase the benefits it can provide.

The European Union Green Infrastructure Strategy was adopted by the European Commission in 2013. Green infrastructure is considered a key element in meeting the European Union's EU 2030 Biodiversity Strategy's plans and highlights the use of GI to maintain and enhance ecosystem services. GI will also have an important role in delivering the European Union's Green Deal, specifically in the function of protecting and enhancing biodiversity and adapting to climate change. The EU Directorate-General for Environment consider GI has having the following four 'broad roles';

- Protecting ecosystem state and biodiversity
- Improving ecosystem functioning and promoting ecosystem services
- Promoting societal well-being and health
- Supporting the development of a green economy and sustainable land and water management

Why do we need green infrastructure?

Today, our interdependence with the environment, its value and the benefits it provides for society are clear and its importance is better understood. It provides us with vital services, essential to our physical and mental health and well-being, economies and cultural identity. The COVID-19 crisis reminded us that as a society that we need those green and open spaces for our quality of life, a place to relax, and to exercise both body and mind.

Healthy networks of green and blue spaces for people and wildlife have also been acknowledged as a crucial approach in mitigating against the negative effects of our changing climate, providing resilience for our cities and towns, reducing flood risk, providing cooling and improving air quality. In rural areas, GI can help to reduce soil loss and erosion, buffer and protect watercourses from pollution and help groundwater recharge by slowing down the flow of water across the landscape.

The use of nature-based solutions to address these challenges both in urban and rural landscapes has been shown to have multiple benefits to the economy, society and the environment.

In terms of the natural world, networks that enable species movement and genetic exchange are vital for adaptation to the changing climate and to reduce the fragmentation that threatens species' ability to persist and thrive. These networks also provide space within which communities can enjoy nature, reinforcing the appreciation of the natural world and thus helping to protect it. Green infrastructure provides space in which the natural world can flourish outside of protected areas.

Benefits of green infrastructure

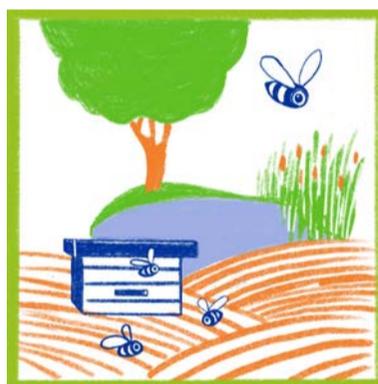
Successful implementation of green infrastructure (GI) projects is dependent on the support of a wide range of stakeholders. These include planners, investors, communities and policy and decision-makers many of whom may not be familiar with the concept of landscape or ecosystem services and may find its scientific approach somewhat alien and understandably perhaps somewhat overly complicated and academic. It is therefore often useful to frame those services in terms of benefits that are more easily identified by stakeholders outside of the scientific realm. Having a clear

set of recognisable benefits can make communicating the concept of green infrastructure simpler and more effective. Understanding the benefits that GI can provide is also key in identifying needs and locations for green infrastructure investment.

The 13 benefit groups of green infrastructure are introduced by this chapter. They are based on a technical information on green infrastructure provided by the European Commission in 2013.

HEALTH AND WELL-BEING

- Provides space for relaxation and exercise
- Positive effect on physical and mental health
- Location for social interaction and community activities
- Reduces and absorbs pollution, particulates e.g. dust and PM10, gases such as ozone, sulphur dioxide, nitrogen



EDUCATION

- Provides a place for learning and other physical activities, outdoor classrooms and forest schools for example
- Encourages protection of the environment through exposure and appreciation
- Access to green space is associated with improved health, mental and physical and cognitive development of children

ENHANCED EFFICIENCY OF RESOURCES

- Maintains soil fertility, reduces erosion by water and wind, by reducing run-off reduces soil loss
- Wildflower strips, ponds and hedgerows provide habitat for pollinators and predators of agricultural pests
- Maintains soil moisture through ground-water recharge/infiltration



AGRICULTURE AND FORESTRY

- Increases soil moisture and reduces erosion through soil stability and protection from wind
- Increases pollination through providing habitat for pollinators and natural predators of crop pests as part of integrated pest management
- Use of GI elements in agroforestry for example can improve productivity and reduce the need for pesticides

TOURISM AND RECREATION

Provides a setting for tourism & recreation activities such as formal parks in urban and natural areas in more rural areas

Creating new or enhancing GI elements can provide alternative tourism products e.g. river-based activities or visitor centres on urban nature reserves

Raises the image of urban areas whilst helping to mitigate against the negative effects of climate change



CLIMATE CHANGE MITIGATION AND ADAPTATION

Improves urban climates through providing shade and evapotranspiration providing usable and comfortable spaces for people in urban areas during high temperatures

Improves air quality by accumulating airborne pollution such as carbon particulate emissions

Acts as storage for rainfall, regulating rainfall run-off thus reducing flood risk

LOW-CARBON TRANSPORT AND ENERGY

Green routes in cities and between residential and work-places provide pollution-free alternative transport options

Greening of urban area reduces energy usage on cooling i.e. air conditioning

Biomass and carbon-neutral energy conversion



DISASTER PREVENTION

Reduces flood risk through water retention/rainfall interception

Maintains soil moisture during dry periods

Increases groundwater recharge, helping to maintain rivers and streams during dry periods

Reduces the likelihood of landslides through increasing soil stability and can help reduce avalanche risk

LAND AND SOIL MANAGEMENT

Reduces vulnerability of soils to erosion through increasing soil moisture

Reduces wind-flow across agricultural landscapes, reducing drying-out of soils and potential for erosion and soil loss

Increases stability and regeneration of soils



CONSERVATION BENEFITS

Increases the permeability of the landscape for wildlife by providing a network of interconnected habitats, essential for distribution, forage and migration

Provides spaces in which humans can enjoy and appreciate flora and fauna and a setting for environmental education

Provides habitat for species vital to crop production and natural pest control



RESILIENCE

Connected habitat networks are more resilient to disturbance events such as fire and flooding and allow for recolonisation

Increases intra-genetic variability through species population size and thus ability to adapt

The more GI in an urban area the more able the area is to withstand the loss of some functions/benefits better than one with a limited amount of GI

INVESTMENT AND EMPLOYMENT

Creates an attractive setting for employment and recreation activities

Supports employment e.g. forestry, management and recreation

Better labour productivity through improved physical and mental health

Regeneration of neighbourhoods and commercial areas



WATER MANAGEMENT

Protects water bodies from agricultural run-off such as soil, fertilisers and pesticides, reducing likelihood of algal blooms, set to worsen under a changing climate

Reduces run-off from roads, intercepting heavy metals and other pollutants such as rubber and micro-plastics

Slows flows across landscapes/townscapes to enable ground-water recharge and reduces flooding severity

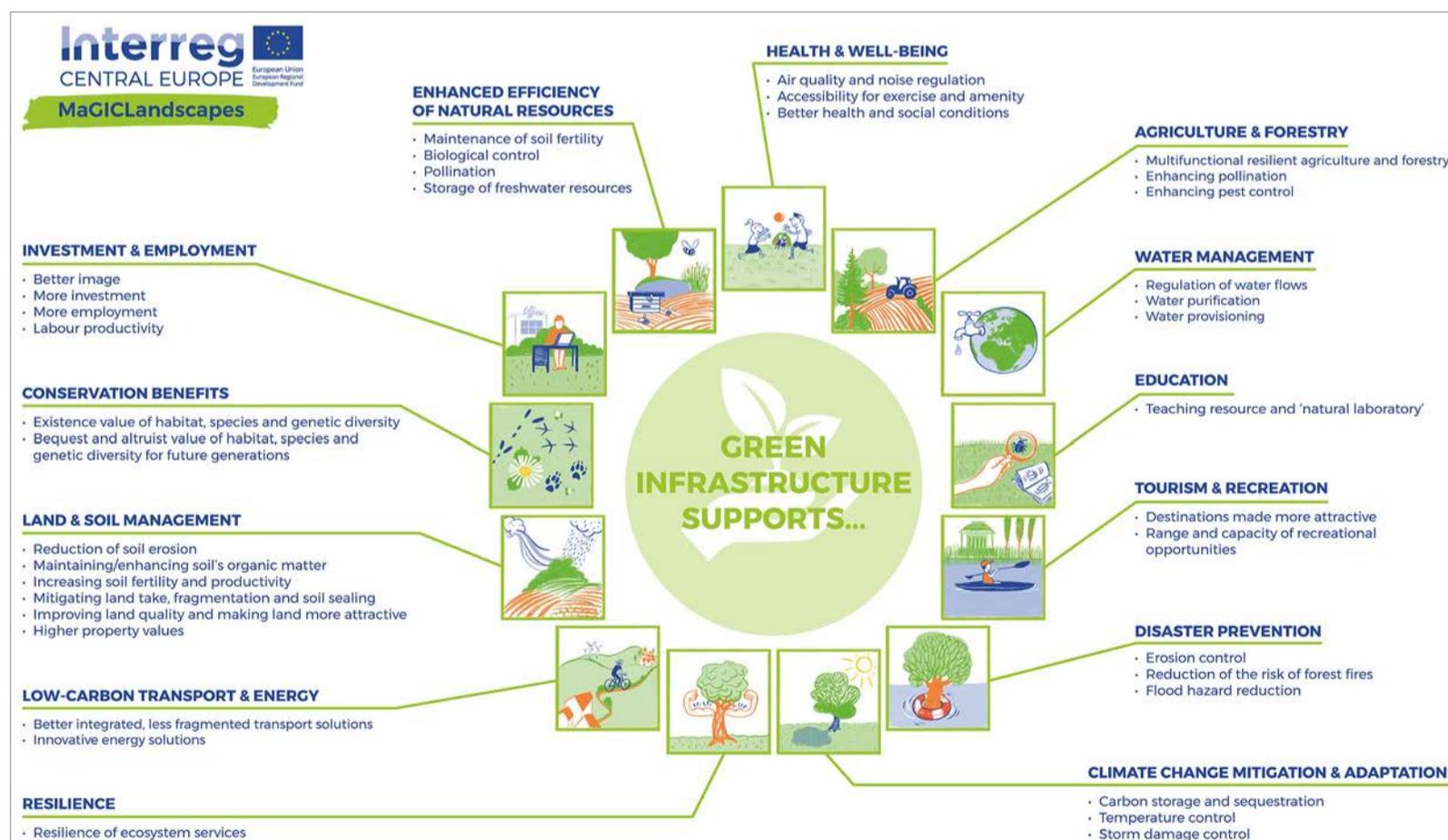
How the regional strategies and action plans support the benefits of green infrastructure

The aim of the MaGICLandscapes project was to raise awareness of the green infrastructure concept in central Europe and to develop tools to help decision-makers and stakeholders alike plan for green infrastructure investments, protection and improvement. The final tool developed in the project was the Manual for Creating Evidence-Based Green Infrastructure Strategies and Action Plans (available in five languages in the output section of the [project website](#)). This manual shows how strategies can be created using the tools developed in the project and was developed using the experiences of the project partners who developed nine green infrastructure strategies and supporting action plans.

What follows is a short summary of each of those strategies and the benefits that can be expected as result of their implementation. Whilst GI provides multiple benefits, the following section highlights a particular one and how that strategy will help deliver it. We hope that within these summaries the reader can find inspiration and employ the green infrastructure concept and approach in their respective region.



Photo: František Fabičovic



Overview of green infrastructure benefit groups | Source: European Commission 2013



Photo: Hana Skokanová

LAND AND SOIL MANAGEMENT

Kyjovsko (South Moravia, Czech Republic)

Kyjovsko is a region in South-Moravia in the Czech Republic. The region covers an area of 470 km² and has about 55,000 inhabitants living in 42 municipalities. It is situated in the lowlands and is characterised by undulating terrain. Most of the region is intensively used, especially for agriculture, resulting in very large, impermeable blocks of arable fields that suffer from wind and water erosion. Due to its warm and dry climate and soils, the region is known for its vineyards, and to a lesser extent for its orchards, which are unfortunately gradually disappearing. Green infrastructure is mainly represented by large woodland complexes in the north and south, some remnants of dry grasslands and the unique but quickly disappearing mosaic of smallholdings. Approximately 20 percent of the region is covered by NATURA 2000 sites, significant landscape elements or small protected areas.

- Restoration of streams and rivers

The strategy and action plan will be further communicated and distributed via the Municipality of Kyjov, Department of Environment and Territorial Planning. Some outputs of the strategy will be included to the regional territorial plan in the future.

Contact

Municipality of Kyjov
Department of Environment and Territorial Planning
urad@mujkyjov.cz
www.mestokyjov.cz

Strategic aims to enhance green infrastructure

The strategic aims of the green infrastructure strategy in the area of Kyjov are the restoration of historic field roads between the villages by means of green elements. This is to make the landscape more accessible and permeable - for people and for wildlife. At the same time **newly planted vegetation to reconnect the GI network along these field roads will reduce soil erosion and support water retention.** Due to intensive agricultural practices the region is suffering from high **soil erosion and drought.**

Action plans to meet the strategic aims

- Implementation of planned but still not existing elements of the Czech Territorial System of Ecological Stability (ÚSES)
- **Planting grassland belts (with and without trees) in erosion prone localities**
- Creation of new cycle paths with accompanying green infrastructure
- Restoration of (historic) field roads
- Building and restoration of wetlands and water bodies



Small holdings are characteristic GI elements of the Kyjovsko region - especially on slopes these structures can avoid soil erosion | Photo: Hana Skokanová



Photo: Verein Dübener Heide e.V.

EDUCATION

Dübener Heide Nature Park (Saxony and Saxony-Anhalt, Germany)

Dübener Heide Nature Park is situated on the southern edge of the North German lowlands in Saxony and Saxony-Anhalt. Key elements are the river valleys of the Elbe and Mulde in the west, north and east. In the north, the Dübener Heide is characterised by post-mining landscapes, a legacy of the historic extraction of brown coal. The centre of the park is characterised by mixed woodland.

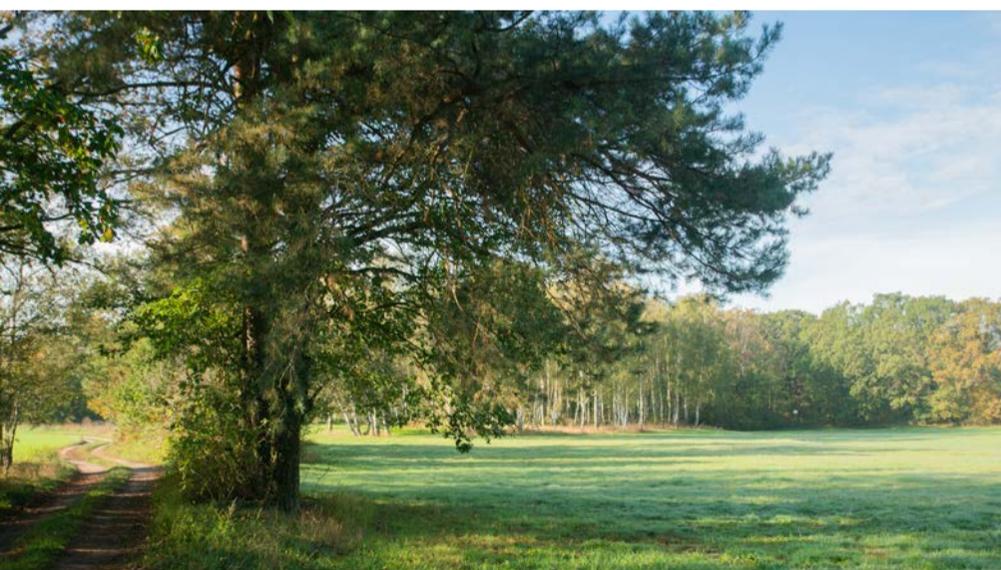
Strategic aims to enhance green infrastructure

In the Dübener Heide Nature Park the main strategic aims are to improve the perception of green infrastructure (GI) through adequate public communication measures. Residents should get aware of the benefits GI can provide for them and make more use of nature-oriented activities to get to know their green environment on feet or by bike. This way the identification and appraisal of green spaces by the people living in the Dübener Heide is increased. **Green infrastructure will become a topic of future environmental education and education for sustainable development.** Further strategic aims are the support of near-natural forest

conversion, the restoration of water streams and to utilise the potential for green spaces in the communities across the region.

Action plans to meet the strategic aims

- **Communication of green infrastructure through environmental education**, (social) media activities and direct contact
- Connection of representative GI elements by cycle and hiking paths
- **Support of community gardens as locations for interaction, environmental education** and implementation respectively management of GI
- Enhance biological diversity by supporting a sustainable development of GI in private gardens in the villages
- Planting of GI elements alongside roads, cycle and hiking paths, field roads
- Restoration of water streams and peat bogs
- Creation of nature-based forest cells, mainly within complex pine forest patches



Characteristic landscape of the Dübener Heide
Photo: Martin Neuhof

Contact
Dübener Heide Nature Park
Thomas Klepel
t.klepel@naturpark-duebener-heide.de
www.naturpark-duebener-heide.de



Photo: M. Wojnarowicz

RESILIENCE

Karkonosze National Park and Jelenia Góra Basin (Lower Silesia, Poland)

The Jelenia Góra Basin together with the surrounding Karkonosze, Rudawy Janowickie and Kaczawskie Mountains, provides a diverse cultural landscape. Towns and villages nestle within a natural mosaic, consisting of mountains and valleys, forests and fields as well as marshes and ponds. Jelenia Góra, the largest city, forms an agglomeration with municipalities at the foot of the Karkonosze Mountains. Local green infrastructure (GI) elements are mostly shaped by man: urban parks, squares, allotments, as well as production forests, agricultural areas, and semi-natural and natural ecosystems in the highest parts of the mountains. The most valuable areas have been included in the Natura 2000 network, including the Karkonosze National Park - the area with the largest nature protection regime in Poland. The Jelenia Góra basin contains a number of palaces and park complexes which serve as important GI elements with a rich history and culture. The strategic objectives to enhance green infrastructure and subsequent actions to meet those objectives are the following:

Objective 1: Shaping of meadows and ecological sites and improving biodiversity

- Communication and habitat maintenance
- Creation of new/expansion of protected areas
- Testing the functionality of ecological corridors
- Maintenance and revitalisation of green spaces
- Creating new forms of greenery

Objective 2: Improve water management

- Identification of water and urban key resources for retentions that require intervention
- Improve water retention
- Improving water and sewage management

Maintenance of meadow habitats by sheep grazing
Photo: Barbara Wieniawska-Raj

Objective 3: Implement the green infrastructure concept in spatial planning, landscape conservation, implementation of investments

- Update of municipal planning documents taking into account the system components of green infrastructure and their communication
- Promotion of social participation and promotion of GI in spatial planning

Objective 4: Building a partnership in developing green infrastructure

- Implementation of GI themes in environmental education
- Maintaining environmental education centres and continuation of their existing forms
- Establishment of local groups and regular workshops on GI
- Sharing and exchanging GI data
- Creating citizens' green budgets

Contact

Karkonosze National Park
Dorota Wojnarowicz
dorota.wojnarowicz@kpnmab.pl
www.kpnmab.pl/magiclandscapes





Photo: KRNP/Kamila Antořová

CONSERVATION BENEFITS

Krkonoše Mountains National Park and surrounding area (Liberec Region and Hradec Králové Region, Czech Republic)

Krkonoše National Park is the oldest National Park of the Czech Republic. This valuable mountain protected area consists of different types of ecosystems and landscapes. It ranges from hilly landscapes peppered with villages, fields and pastures at the lower parts, through the mountain mixed and spruce forests with enclaves of high biodiversity meadows, up to arcto-alpine tundra characterised by natural grasslands with dwarf pine shrubs at the upper parts and sparsely vegetated areas on the top of the highest peaks.

Strategic aims to enhance green infrastructure

The strategic aims to enhance green infrastructure (GI) in the Giant Mountains National Park and its surrounding area in the Czech Republic are **to manage the key ecosystems in a sustainable way**. The mountain meadows are managed by regular grazing by sheep or cows, and regular mowing activities. The large tundra forests are important GI elements and provide habitat for the black grouse or the lynx. **Connecting corridors by additional GI elements enable**

species to migrate further distances. Also the creation of GI elements is connected to the renovation of environmental education trails and establishment of sustainable tourism facilities.

Action plans to meet the strategic aims

- **Key protected species management including their habitats, e.g. respect for quiet areas and grazing and/or mowing activities at suitable time**
- **Definition and implementation of the Czech Territorial System of Ecological Stability (ÚSES) in the territory of the National Park and its surrounding area:** the proposed corridors and bio-centres will be seamlessly connected between individual municipalities and thus guarantee the **connectivity of habitats in the area and its connection with the surrounding protected areas**.
- Integration of GI elements to the establishment and management of sustainable tourist infrastructures (e.g. environmental education trails, eco-farms, cycle paths)
- Support water retention of the landscape, e.g. peat bogs, springs, and restoration of drained water streams



Autumnal landscape mosaic of Krkonoše National Park
Photo: Pavla Marešová

Contact

Krkonoše National Park
Martin Erlebach
merlebach@knap.cz
www.knap.cz



Photo: Henriette John

HEALTH AND WELL-BEING

Tri-border region Czech Republic, Germany, Poland

The case study area of the tri-border region Czech Republic-Germany-Poland stretches from Bohemian Switzerland in the west through the Zittau and Lusatian Mountains to the Jizera Mountains in the east. An important landscape feature is the River Neisse with its tributaries. This network of waterways connects the three countries and passes through mountainous areas with forests, peat bogs, rocky areas and mountain meadows and the lowlands with their settlements and agricultural areas. Open cast lignite mining still impacts this landscape, with the Turów mine being the largest.

- **Utilisation of brownfields for new public green spaces and parks**
- Enhance urban biodiversity through insect-friendly green spaces
- Reduction of soil erosion on agricultural lands and of damages through diffuse running of surface water by means of an adapted land management in the catchment areas
- Partly uncovering of the ‘Goldbach’ stream in Zittau (DE)
- Revitalisation of artificial standing water bodies in Bogatynia (PL)

Strategic aims to enhance green infrastructure

The creation and enhancement of urban green spaces is a central aim of the strategy. It is to improve the quality of life of city dwellers and to create recreational areas and environmental education opportunities. At the same time, this is expected to increase biodiversity and improve the adaptation of cities to climate change. The restoration of watercourses, floodplains and catchment areas intends to prevent future heavy flooding, reduce soil erosion in the catchment areas and increase the biodiversity of the floodplains.

Contact

Leibniz Institute for Ecological Urban and Regional Development
Marco Neubert
m.neubert@ioer.de
www.ioer.de

Action plans to meet the strategic aims

- Integration of the concept of green infrastructure to informal and formal planning instruments in the tri-border region Czech Republic - Germany - Poland
- Connection of cities and surrounding green infrastructure hot spots by planting new GI elements alongside roads and cycle paths
- **Establish a second “green ring” around the city of Zittau**
- **Make edible urban green accessible for everyone, management and attractive arrangement**
- **Revitalisation of existing urban parks and rearrangement of green spaces to multifunctional parks and urban gardens**



Enhancement of urban green spaces in the tri-border region is one action of the green infrastructure strategy



Photo: Florian Danzinger

AGRICULTURE AND FORESTRY

Eastern Waldviertel and Western Weinviertel (Lower Austria, Austria)

The Lower Austrian case study area covers the districts of Horn and Hollabrunn and is a transition area between two landscapes, the Waldviertel in the west and the Weinviertel in the east. The Waldviertel is shaped by the highlands of a shallow gneiss landscape. The River Thaya partially marks the northern border to the Czech Republic and gives its name to the trans-boundary Thayatal/Podyjí National Park, recognised as an outstanding biodiversity hot spot. Challenges and needs for enhancing green infrastructure in the area:

- Intensive agriculture leads to cleared and featureless landscape
- Connecting migration corridors and Natura 2000 areas by additional green infrastructure elements in the landscapes
- Development of a coordinated regional instrument for spatial and landscape planning

Action plans to meet the strategic aims

According to the results of the comprehensive green infrastructure assessment the following actions and areas of

intervention were identified as most urgent:

- **Enhancement of the cleared, arable dominated cultural landscape by re-cultivating it with landscape elements such as hedges, field margins or flower strips**
- **Climate-friendly forest conversion of spruce plantations with tree species appropriate to the location and designation of natural forest reserves**
- Creation of retention and buffer areas, widening of water bodies, promotion of small water bodies and increase of structural diversity in river beds and bank areas of water bodies and wetland habitats for ecological improvement, raising of the groundwater level and improvement of flood protection
- **Securing and improving green infrastructure in areas of fruit and wine growing complexes by preserving and returning to the traditional small-scale cultural landscape and its numerous intermediate structures such as slopes, rows of trees and individual trees**
- **Targeted maintenance and resumption of traditional forms of use such as mowing and grazing of the remaining dry grasslands, meadows and pastures which, as scattered residual areas within the intensively used cultural landscape**
- Improvement measures for green areas close to settlements, such as home gardens and parks as well as accompanying areas of road and rail infrastructure offer the possibility to improve the environmental conditions in the villages and towns and to increase the quality of life of the people.
- Securing and establishing habitat corridors to re-connect protected areas, improve an effective biotope network and increase the connectivity of the landscape.



Future task: enhancement of the cleared arable landscape by hedges, field margins or flower strips | Photo: Florian Danzinger

Contact

University of Vienna
 magiclandscapes.cvl@univie.ac.at
<http://cvl.univie.ac.at/>



Photo: Nationalpark Thayatal/R. Mirau

CONSERVATION BENEFITS

Thayatal National Park (Lower Austria, Austria)

The Lower Austrian case study area covers the districts of Horn and Hollabrunn and is a transition area between two landscapes, the Waldviertel in the west and the Weinviertel in the east. The Waldviertel is shaped by the highlands of a shallow gneiss landscape. The River Thaya partially marks the northern border to the Czech Republic and gives its name to the trans-boundary Thayatal/Podyjí National Park, recognised as an outstanding biodiversity hot spot. Challenges and needs for enhancing green infrastructure in the area:

- Intensive agriculture leads to cleared and featureless landscape
- Connecting migration corridors and Natura 2000 areas by additional green infrastructure elements in the landscapes
- Development of a coordinated regional instrument for spatial and landscape planning

Action plans to meet the strategic aims

- Strengthen communication with regional stakeholders on the green infrastructure (GI) approach and enhancement of specific GI elements and spaces
- **Conservation measures to maintain biodiversity of meadows, dry grasslands and heathlands**
- Implementation of the green infrastructure approach into environmental education offers at Thayatal National Park, GI is an important topic of Education for a Sustainable Development
- Activate visitor groups and citizens to create natural gardens to maintain biodiversity also in settlements
- **Enrich habitats of the European wildcat and create additional migration corridors in and around Thayatal National Park by means of new GI elements**

Contact

Thayatal National Park GmbH
office@np-thayatal.at
www.np-thayatal.at



Creation of additional migration corridors for the European wildcat is one action plan in Thayatal National Park
Photos: NPTT/Christian Übl (above), Christoph Milek



Photo: Gabriele Bovo

WATER MANAGEMENT

Po Hills around Chieri (Piedmont, Italy)

The case study area includes the city of Turin on the River Po and the surrounding peri-urban areas located on the plain. The Turin hills to the east are covered with woodlands and vineyards. Many special protected areas are located on the hills and in the plain along the River Po. South of the area is the Altopiano di Poirino and a wide plain, where the woodlands were replaced by agriculture. The area has a significant naturalistic-environmental and landscape value. Challenges and needs for green infrastructure (GI):

- Landscape deterioration in urban and peri-urban areas
- Urban sprawl in the plains and in the hills along the main transport routes
- Reduced biodiversity and ecological connectivity due to intensive agriculture
- Soil erosion, hydro-geological fragility, landslides and flooding

Strategic aims to enhance green infrastructure

The inclusion of rules and regulations in the various territorial and urban planning tools will help to protect and implement GI and their benefits such as:

- Prevention and mitigation of soil erosion/instability
- Afforestation of areas in the plain
- Containment/eradication of invasive species
- Enrich biodiversity in agricultural areas with hedge planting
- Mitigation of the effects of soil consumption (sealing, fragmentation, impoverishment)
- Improvement of air quality and environmental quality
- Connection of natural, semi-natural areas and agricultural parks, protection and greening of brownfields and other open spaces
- Increase of public green areas, cycle paths, nature-based

solutions e.g. green roofs and walls, tree-lined avenues, permeable pavements etc.

- **River areas: enhancement of GI through increased vegetation along the riverside, perfluvial vegetation, recovery of degraded areas (quarries, dumps), sediment management**
- **Restoration and greening of wetlands**

Action plans to meet the strategic aims

The Action Plan of the case study area “Po Hills around Chieri” contains measures aimed at the **landscape and environmental improvement of Lake Arignano area**. Among others these are the following:

- **Enlargement of the existing Capture Repopulation Zone (ZRC)**
- Identification of the needed restoration interventions in the area north of the lake in order to create an “educational forest”
- Forecast of a working group to set up a system of PES (Payment of Ecosystem Services) on the entire area of the Action Plan
- Realisation of a naturalistic-environmental route around the lake equipped with bird watching huts and information panels about flora and fauna

Contact

Metropolitan City of Turin
Gabriele Bovo
gabriele.bovo@cittametropolitana.torino.it
www.cittametropolitana.torino.it



Photo: Simone Ciadamidaro

DISASTER PREVENTION

Upper Po Plain (Piedmont, Italy)

The case study area includes protected areas along the River Po between Vercelli and Alessandria - mainly regional Nature Reserves and Natura 2000 sites. The area is characterised by the presence of the river corridor, which runs through the territory for about 90 km. This corridor consists of the river itself, the riparian vegetation strips and marginal areas such as oxbows, side branches and wetlands.

Strategic aims to enhance green infrastructure

- Improvement of ecological connectivity, particularly in the rice sector
- Increase biodiversity and the conservation of species and habitats
- **Reduction of damage caused by floods**

Action plans to meet the strategic aims

Based on an intensive dialogue with local stakeholders the following areas of interaction were defined:

- The connection through natural elements of the core areas; the connection axes that seem most relevant are those that would allow the connection between Bosco della Partecipanza and Palude di San Genuario, and those that would **connect these special protected areas with the river corridor**
- The recovery and strengthening of minor roads for the realisation of cycle and pedestrian tourist routes including accompanying green elements
- **Improving the integrity of the irrigation network**

Contact

Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA)

Gian Luigi Rossi
gianluigi.rossi@enea.it
www.enea.it/en

Protected Areas Po Vercellese-Alessandrino

Dario Zocco
parcodelpo-vcal@pec.it
[Website](#)



Connection of green and blue elements along the River Po Plain and inbetween it's ricefields are important future actions | Photos: Simone Ciadamidaro

Useful web links

International level

World Resources Institute: Green infrastructure

CEEweb for Biodiversity: Green infrastructure

European level

European Commission, DG Environment: The EU Strategy on Green Infrastructure

European Environmental Agency (EEA): What is Green Infrastructure?

EPSON 2020: GRETA - Green infrastructure: Enhancing biodiversity and ecosystem services for territorial development

Interreg Europe: The Green Infrastructure Partnership

Interreg Central Europe Project MaGICLandscapes: Outputs and tools

Interreg Alpine Space Project LOS_DAMA!: Green infrastructure for better living

EUSALP - EU Strategy for the Alpine Region: Action Group 7 - Green Infrastructure

FP7 Project GREEN SURGE: Green Infrastructure and Urban Biodiversity for Sustainable Urban Development and the Green Economy

LIFE+ Project GREEN4GREY: Green and blue infrastructure for grey peri-urban landscapes

Europarc Federation: Green Infrastructure

National level

ESRI: Building Green Infrastructure in the U. S.

German Federal Green Infrastructure Concept

Regional & local level

Green Infrastructure North West (UK): Toolkits and Evidence

ICLEI - Local Governments for Sustainability: Nature-Based Solutions and Green Infrastructure

Ecologic Institute: Green Infrastructure Implementation and Efficiency