

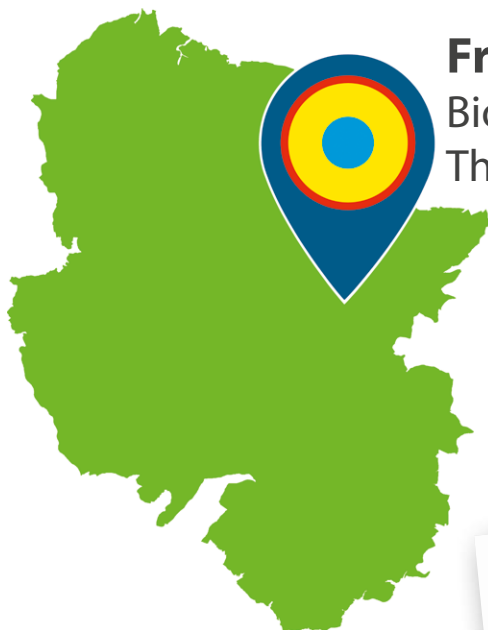


SUMMARY

# FRAMEWORK CONCEPT

UNESCO Biosphere Reserve Thuringian Forest (2021-2030)





## Framework Concept

### Biosphere Reserve Thuringian Forest



In order not to impair the ease of reading, gender-neutral formulations are used as far as possible. If the gender-neutral form is not possible, the masculine form is used, which always means that all other gender forms are implied in equal measure and respect.

# Table of contents

1	INTRODUCTION.....	4
2	PROFILE OF THE UNESCO BIOSPHERE RESERVE THURINGIAN FOREST .....	6
3	MISSION STATEMENT BIOSPHERE RESERVE .....	10
4	CHALLENGES AND PERSPECTIVES .....	11
5	STRENGTHS & WEAKNESSES, GUIDING PRINCIPLES & GOALS .....	12
6	LEADING PROJECTS .....	30
7	PROJECTS, PILOT PROJECTS, RESEARCH PROJECTS .....	40
8	COMPETITION .....	42
9	OUTLOOK.....	43



Vision and mission of the UNESCO programme “Man and the Biosphere”:  
We envision a world in which people are aware of their shared future and interaction  
with mother earth, and who want to build a flourishing society in harmony with  
nature, together and with a clear sense of responsibility.

(Man and the Biosphere (MAB). Implementation of the UNESCO programme in Germany.  
BMU. Bonn (2018). Page 56)



# A warm welcome

Dear Ladies and Gentlemen,

The UNESCO Biosphere Reserve Thuringian Forest is a region of international importance, of which we can all be very proud. In recent years, joint efforts have succeeded in expanding the biosphere reserve. The legal framework for this was created in 2016. This was followed in 2018 with renewed recognition by UNESCO.

Biosphere regions are areas for sustainable development – in other words, the goal, the claim and the challenge at the same time. Here, we combine nature conservation with sustainable management. This is how we preserve biodiversity and our livelihoods for future generations.

The challenges have grown with the climate crisis taking hold, demographic development and digitalisation. How should (and can) the biosphere reserve develop in the coming years, what is sustainable and viable for the future? The answers can only come from the people

from the region who live and work here. For this purpose, the development of the framework concept was commissioned on a broad basis. Municipalities, citizens, clubs and associations, farmers and foresters, Natura2000 stations, tourism and cultural institutions, transport companies, education providers, institutions, scientists and many other stakeholders have contributed extensively. As a result, the framework concept was developed from the region, with the region and for the region.

This brochure summarises the results of two years of discussion and work. The central questions are: Where do we stand? What are our goals for the future? What does our path look like? The answers and future perspectives are formulated in the mission statements, goals, flagship projects, projects, pilot projects and research projects. In this respect, they have set more than just a framework with the framework concept up to the year 2030. On the contrary, they have drawn up a regional development strategy for sustainability!



I would like to thank all those involved for their joint commitment and encourage you to continue to be actively involved. The ambitious goals and projects can only be implemented through the joint efforts of the entire region. The Thuringian Ministry for the Environment, Energy and Nature Conservation will, of course, continue to support the UNESCO Biosphere Reserve Thuringian Forest as part of the World Network in the sense of "Think globally – act locally". Please do the same – for your family, your region and your children's future.

Yours, Anja Siegesmund  
Thuringian Minister for the Environment,  
Energy and Nature Conservation

# 1 | Introduction

Biosphere reserves are model regions for sustainable development efforts in an international standing.

In 1970, UNESCO launched the interdisciplinary intergovernmental programme "Man and the Biosphere" (MAB) to exemplify solutions for effective conservation and the sustainable use of natural resources in the biosphere at the international and national levels.

The biosphere reserve is part of a world network of at present 714 UNESCO biosphere reserves in 129 countries around the world (as of 10/2020). For the implementation

For the implementation of the global network's MAB strategy (2015 – 2025) the Lima Action Plan was adopted in 2016. It makes a decisive contribution to achieving the sustainability goals of the 2030 Agenda..

## Why do we need a framework concept?

The UNESCO Biosphere Reserve is one of the oldest biosphere reserves in Germany.

It has been expanded in recent years. The size of biosphere reserves is important because a sufficiently large section of an economic and natural area is a prerequisite for the development and testing of model sustainable developments. With the Thuringian Ordinance coming into force on the biosphere reserve in 2016, the legal

basis for the expansion was created with an area of 337 km². 2018 recognition by UNESCO as a UNESCO Biosphere Reserve Thuringian Forest followed.

In the coming years, the focus will now be on the content aspects. For the sake of people and nature, it is important to keep an eye on economic development and nature conservation in equal measure. With the framework concept a concrete and coordinated basis course is now set for the future.

It is a regional development strategy for sustainability. Socio-economic and socio- cultural issues are considered on an equal footing with nature conservation and environmental issues.

**The framework concept will now form the basis for collaborative work over the next ten years (2021–2030).**

It is not a binding plan, but a recommendation for action for the stakeholders involved in the region. For the biosphere reserve administration, it is the basis for its own work and, at the same time, the basis for being able to better support the key stakeholders in the future.

**As a regionally coordinated development strategy for sustainability, it offers the opportunity to obtain funding for the entire biosphere for specific coordinated projects .**

Culture & regional identity

Mobility & transport

Education for sustainable development

Tourism, recreation & nature

Mountain streams, bogs & water management

Forest, forestry & hunting

Energy & climate protection

Economy, trade & crafts

Mountain meadows & agriculture

Population, demography & municipal development

In order to publish the framework concept for the UNESCO Biosphere Reserve Thuringian Forest in an appealing form, this brochure was created. It is a short version and contains the essential contents of volumes 1-3 of the framework concept (long version) in excerpts or abridged form. You can find the long version at: [www.biosphaerenreservat-thueringerwald.de](http://www.biosphaerenreservat-thueringerwald.de)

The thematic guideline for the framework concept is the guideline of the Federal Agency for Nature Conservation with a total of 18 topical fields, which are presented in a three-part, highly comprehensive version. For the participation process, the 18 thematic fields of the framework concept were combined into 10 core themes.

01 / 2020

Advisory board 1

02 / 2020

Kick-off event

09 / 2020

Advisory board 3

## Milestones of the participation process

06 / 2020

Advisory board 2

10 / 2020

Award Ceremony – Competition Sustainable.

01 / 2021

Citizens' Forum



Handover of the call for competition "Sustainable. Good" to the representatives of the municipalities at the launch event



## Who was involved?

The framework concept was developed in the period from 2019 to 2021 in a participatory process and **is based on the guiding principle "from the region, with the region, for the region"**.

The individual discussions with experts and the mayors of the towns and municipalities provided solid insight into the processes that have already taken place, existing expectations, as well as available knowledge in the region.

The core of participation in terms of content was formed by three future forums in which the relevant stakeholders, land users, administrations, institutions, associations, organisations, initiatives, traders and specialised agencies were invited and in which the following core questions were discussed: → see graph on the right

In addition, an open invitation was issued to a citizens' forum where citizens could contribute their ideas for the development of the UNESCO Biosphere Reserve. In view of the Corona pandemic, the three Future Forums (including the Citizens' Forum) could not take place as face-to-face events, but were held as online events.

Despite the new digital formats, and after some start-up difficulties, the future forums were well attended and constructive

discussions took place as well as intensive collaboration on the digital noticeboards.

For the development of the framework concept, an interdisciplinary advisory board was formed, consisting of representatives of the 12 participating districts, cities and municipalities, as well as 14 specialised institutions/associations. This committee was intensively involved as an advisory body. All relevant contents of the framework concept, such as guiding principles, goals and projects, were agreed with the advisory board.

In addition, the competition "Sustainable. Good. Great ideas for our UNESCO Biosphere Reserve Thuringian Forest" was announced. There was a call for projects or ideas on how life and work in the biosphere reserve can be made sustainable in the future. Sponsors from the region supported the competition with funds totalling EUR 6,000 for the awarding of the five best ideas and for the implementation of the five best projects.

The participatory process was accompanied by numerous newspaper articles. All results were published on the website.

WHERE ARE WE?  
(→ VOLUME 1)

WHAT GOALS  
DO WE HAVE?  
(→ VOLUME 2)

WHAT DOES OUR  
PATH LOOK LIKE?  
(→ VOLUME 3)



06/2021  
Advisory board 4

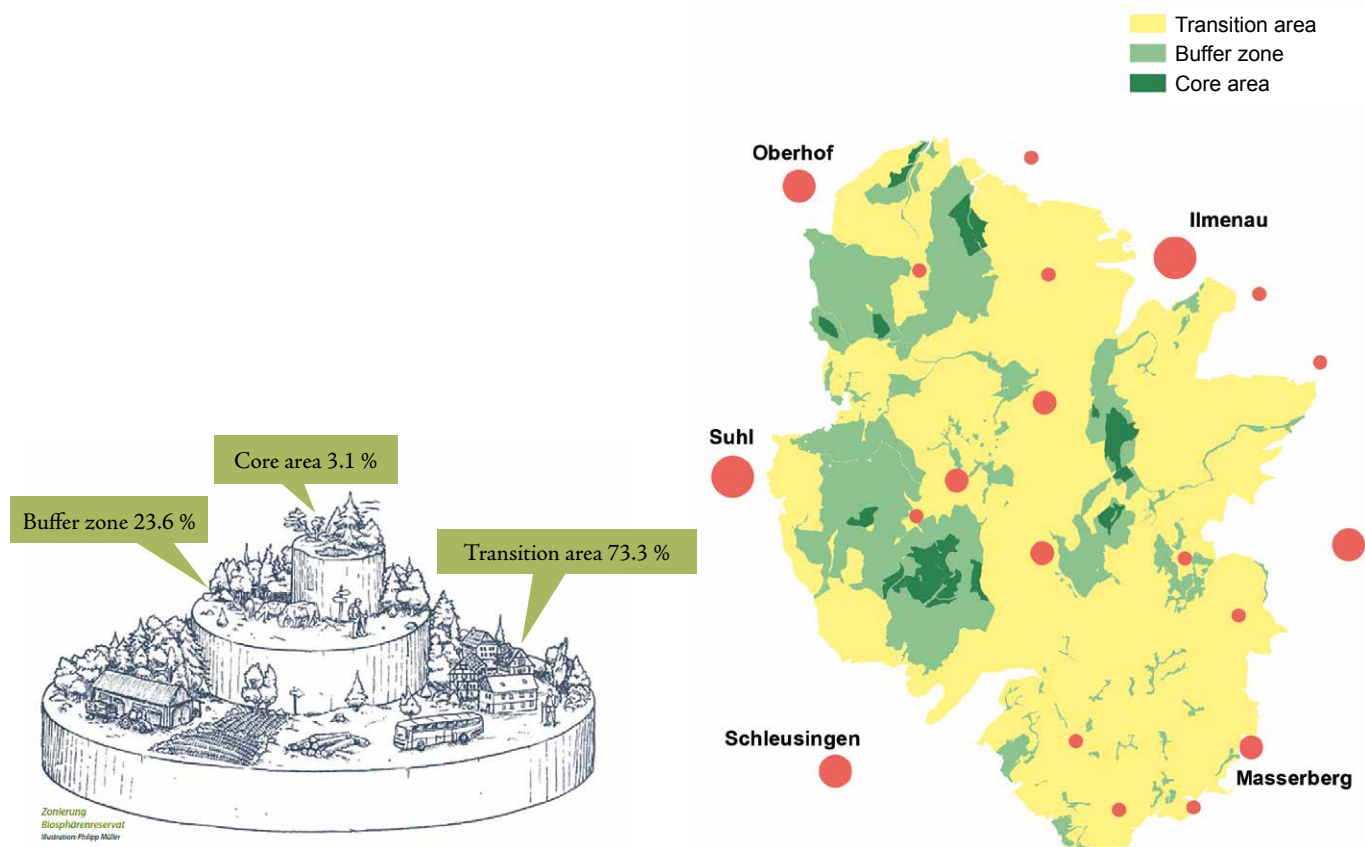
06/2021  
Future  
forum III

12/2021  
Closing event

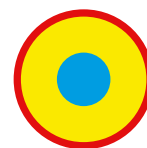
01/2021  
Future  
forum I

04/2021  
Future  
forum II

09/2021  
Advisory board 5



## 2 | Profile of the UNESCO Biosphere Reserve Thuringian Forest



UNESCO recognition (areas in km <sup>2</sup> )	1979: UNESCO Biosphere Reserve Vessertal (13.8 km <sup>2</sup> ) 1990: UNESCO Biosphere Reserve Vessertal-Thuringian Forest (170 km <sup>2</sup> ) 2018: UNESCO Biosphere Reserve Thuringian Forest (336.70 km <sup>2</sup> )
Geographical location	Middle Thuringian Forest, framed by the towns of Oberhof, Suhl, Schleusingen and Ilmenau
Zoning	In accordance with the International Guidelines for the World Network of Biosphere Reserves, core areas as well as buffer zones and development zones are to be designated. The UNESCO Biosphere Reserve Thuringian Forest is divided into a transition area, buffer zones and core areas. <ul style="list-style-type: none"> <li>• Core area 1043.2 ha (3.10 %)</li> <li>• Buffer zone 7,927.2 ha (23.56 %)</li> <li>• Transition area 24,683.9 ha (73.34 %)</li> </ul>
Counties, cities and municipalities	The UNESCO Biosphere Reserve Thuringian Forest covers areas in the districts of Ilm-Kreis, Hildburghausen and Schmalkalden-Meiningen, as well as the independent city of Suhl. 9 towns and municipalities with 42 districts have a share in the biosphere reserve. Of these, 19 are completely or partially localized within the biosphere reserve (as of 01.01.2019). The largest area of around 90 km <sup>2</sup> is in the town of Ilmenau, which corresponds to 27 % of the total area of the biosphere reserve.
Administration structure	The administration function of the UNESCO Biosphere Reserve is located in the district of Schmiedefeld am Rennsteig, which belongs to the city of Suhl, and is responsible for implementing the tasks arising from the UNESCO programme "Man and the Biosphere". The administration function is supported by the association "Förderverein Biosphärenreservat Vessertal-Thüringer Wald e. V."
Population	approx. 100,000 people (as of 2018)





Natural space	<p>The UNESCO Biosphere Reserve Thuringian Forest is predominantly located within the Middle Thuringian Forest nature area, but also includes parts of the South Thuringian “Buntsandstein- Waldland” and “Hohes Thüringer Schiefergebirge-Frankenwald” nature areas.</p> <p>The Middle Thuringian Forest is a highly dissected ridge mountain range characterised by deep, mostly steeply notched valleys, often separated by flattened, narrowly tapering ridges. While the Thuringian Forest ridge runs from north-west to south-east, the valleys run in a north-north-easterly as well as south-south-westerly direction from the mountain ridge. The difference in altitude in the UNESCO Biosphere Reserve Thuringian Forest is considerable. The highest point is “Große Beerberg” with a height of 982.9 m above sea level, while the lowest point within the UNESCO Biosphere Reserve is 414 m above sea level.</p>
Utilisation structure	<p>Approx. 84 % mountain forest</p> <p>Approx. 12 % mountain meadows</p> <p>Approx. 4 % mountain streams, bogs and settlements</p>
Landscape	<p>The landscape of the UNESCO Biosphere Reserve is characterised by a distinctive relief of hilltops, mountain slopes and valleys. Today, the forests are dominated by spruce (<i>Picea abies</i>) due to human forestation use. In large parts, mixed mountain forests with beech, sycamore maple and silver fir still grow. The numerous stream valleys and mountain meadows that structure the forest areas are truly characteristic. One detail that is typical for the settlements are the slate houses and the harmonious transitions into the surrounding cultural landscape. Structures such as field terraces, dry stone walls, stepped field margins and sunken lanes can still be found in the biosphere reserve as evidence of cultural-historical use.</p>
Information centres	<p>The information centre for the Thuringian Forest Biosphere Reserve is located together with the local tourist information in the “Haus am Hohen Stein” in Schmiedefeld am Rennsteig. On the ground floor, there is a versatile and multimedia permanent exhibition. The administration function of the UNESCO Biosphere Reserve is located on the upper floors. There are also rooms for events and an environmental education room. The biosphere reserve’s support association runs the interactive exhibition “Natur erleben” (“Experience Nature”) in Frauenwald.</p>





## Tourist significance

### Selected (cycling) hiking trails

Rennsteig, Goethewanderweg, Gipfelwanderweg, Thüringer Klimaweg, Vessertal-Rundwanderweg; Rennsteig-Radwanderweg, Ilmtal-Radweg, Geratal-Radweg, Ilm-Rennsteig-Radweg

### Selected museums and exhibitions

Glasmuseum  
Ofenmuseum  
Bunkermuseum  
Museumpark Gehlberg  
Deutsches Thermometermuseum  
Technisches Denkmal Braunsteinmühle  
Wald-Kreativ-Museum mit Kloßpressenmuseum  
GoetheStadtMuseum  
Museum Jagdhaus Gabelbach  
Museum Schlittenscheune  
Schaubergwerk Volle Rose  
Rennsteigmuseum  
Rennsteiggarten  
Naturhistorisches Museum Schloss Bertholdsburg  
Goethemuseum  
Heimat- und Glasmuseum  
Gewürzmuseum Schönbrunn  
Waffenmuseum Suhl  
Herbert-Roth-Ausstellung  
Schaubergwerk Schwarze Crux

Altenfeld  
Elgersburg  
Frauenwald  
Gehlberg  
Geraberg  
Geraberg  
Großbreitenbach  
Ilmenau  
Ilmenau  
Ilmenau  
Langewiesen  
Neustadt a. R.  
Oberhof  
Schleusingen  
Stützerbach  
Stützerbach  
Schönbrunn  
Suhl  
Vesser  
Vesser

### Selected regional festivals and events

GutsMuths-Rennsteiglauf	May
Schmiedefeuer am Rennsteig	May
Bergmannsfest in Schwarzer Crux	May
Blütenfest im Rennsteiggarten	June
Gipfeltreffen auf dem Schneekopf	July
Schwarzbeerfest	July
Kickelhahnfest	August
Kram- und Kräutermarkt	August
Genuss-Woche „Außergewöhnlich Wild“	September

Schmiedefeld a. R.  
Bahnhof Rennsteig  
Vesser  
Oberhof  
Gehlberg  
Vesser  
Ilmenau, Kickelhahn  
Großbreitenbach  
Biosphärenreservat





## transport connections

### Individual transport

Thuringian Forest motorway (A71/A73)  
B88 federal road, state roads

### Railway

Rail lines:  
Würzburg-Suhl-Erfurt  
Erfurt-Ilmenau

Stations: Suhl, Ilmenau, Geraberg, Elgersburg,  
Gräfenroda, Gehlberg

### Bus

Weekdays: numerous bus lines  
Weekends and public holidays: several bus routes

### Additional tourist train service

on all weekends and public holidays:  
Rennsteig Shuttle (Ilmenau – Manebach –  
Stützerbach – Bahnhof Rennsteig)

On selected driving days: Steam train rides with  
historic trains (Ilmenau – Bahnhof Rennsteig – Themar)



# 3| Biosphere Reserve – Mission Statement

UNESCO Biosphere Reserves are internationally networked and, together with national parks and nature parks, are part of the association Nationale Naturlandschaften e. V., the umbrella organisation of Germany's national parks, biosphere reserves, nature parks and wilderness areas, has adopted the following overarching mission statement for the German biospheres:

UNESCO Biosphere Reserves are international model regions for sustainable development in which the coexistence of humans and nature is developed and tested in an exemplary manner.

They protect cultural landscapes from damaging influences and preserve and develop valuable habitats for people and nature.

They ensure a balanced relationship between human use and natural cycles, and contribute to regional value creation.

Biosphere reserves provide exemplary insights for research and science into the interactions of natural and social processes.

Based on this overarching mission statement, and taking into account the strengths and weaknesses in the respective thematic fields, specific technical mission statements for the UNESCO Biosphere Reserve Thuringian Forest were developed in Chapter 5.



## Principles of sustainable development:

Do not live at the expense of our grandchildren.  
Efficient management.  
Be socially just.  
Act in partnership.  
Think globally, act locally.





## 4 | Challenges and Perspectives

In order to fulfil the vision and the mission of the UNESCO programme “Man and the Biosphere”, biosphere reserves today face major challenges related to climate change, demographic change and digitalisation.



### Climate change

#### Challenges

The changing climatic conditions in the UNESCO Biosphere Reserve Thuringian Forest have already led to an increase in the number of summer days, to increasingly heavy precipitation in the ridge areas and to a lack of reliability with regard to snowfall. This has implications for ecosystems, management and people. In addition to bogs, streams, ponds and meadows, the spruce forests in the Thuringian Forest are particularly affected. With increasing dryness, the risk of storm damage and pest infestation increases, as well as forest fires. Impacts on forestry yields and on winter tourism are the result. However, climate change is also accompanied by heat stress for the population in cities.

#### Perspectives

In the UNESCO Biosphere Reserve, increased forest restructuring offers opportunities for the future of forestry use and ecosystems. For locals and guests, alternative winter sports and attractive summer offers are important approaches, and the “forest” recreational area will increase in importance, especially during expected heat waves. With increasing sunshine, however, the use of solar systems as a contribution to climate protection will also become more attractive.

#### Perspectives

In recent years, there has been an increasing trend among people to return to the region. Both people who want to spend their retirement at home and young people who want to start a family after completing their vocational training abroad are returning more frequently than in the past. Rising numbers of children in some municipalities are also mitigating the demographic change.

### Digitalisation

#### Challenges

Digitalisation has shaped and changed our society in many areas. However, a fast and stable internet connection is the basic prerequisite for being able to use digital services adequately and expand them in a sustainable way. This requires the far-reaching expansion of broadband, especially in rural areas.

#### Perspectives

Digitalisation is opening up new perspectives in communication and cooperation for an increasing number of people. Especially in the wake of the Coronavirus pandemic, many companies, employees and self-employed persons have discovered the advantages of digital life when working from home, which at the same time has helped to reduce commuter traffic and thus make a positive contribution to climate protection.

### Demographic change

#### Challenges

Since the 1990s, the population of the Thuringian Forest has been shrinking as a result of low birth rates and the exodus of young people. This, in turn, has led to the vacancy of residential buildings in many places and pressure on facilities of general interest such as grocery shops, post offices or schools due to necessary restructuring. For some years now, there has been a serious shortage of skilled workers: in the gastronomy and accommodation sector, in the crafts sector, in companies and in agriculture. Connected to this is the question of company succession. On the other hand, there is an increasing demand for care places and offers for age-appropriate living, as well as social offers for the 65+ generation.





# 5 | Strengths & Weaknesses, Guiding principles & goals

Chapter 5 describes the primary strengths and weaknesses. Insight is provided on where sustainable developments are already taking place, where there is a need for action and challenges, what the special regional approaches are, and what is seen as exemplary in the biosphere reserve. The guiding principles and goals based on the analysis of strengths and weaknesses were discussed thematically and jointly in the region in the course of the future forums and finalised by the advisory board.

## 5.1 Our nature and landscape

### Cross-ecosystem

The UNESCO Biosphere Reserve Thuringian Forest is characterised by a variety of different ecosystems. Due to their balancing functions, the forests, floodplains with spring and mountain streams, mountain meadows and bogs make a significant contribution to the water balance and water retention, while also counteracting the consequences of climate change. The species composition of the ecosystems is of European and international importance.

#### 🕒 Goals

- Protection of biodiversity and the genetic inventory with a focus on rare species of the forest, mountain grassland, mountain streams and raised bogs as well as endemic species.
- Protection and conservation of the habitats of the European protected area NATURA 2000, priority protection is given to mixed gorge and slope forests,

bog forests, alder and ash forests along streams, and species-rich bristly grassland.

- Implementation of the biotope network concept of Thuringia with a spatial focus on the forests in the core area and buffer zone, as well as on the mountain grassland.

### Landscape

The landscape of the UNESCO Biosphere Reserve Thuringian Forest is characterised by a varied relief with mountain peaks and deep, mostly steep valleys and numerous spring and mountain streams. The landscape is characterised, in particular, by the high proportion of forest, consisting of dominant near-natural spruce and mixed spruce forests, as well as mixed mountain forests. In the valleys and at higher altitudes, there are mountain meadows embedded in the forest and settlements with slate houses. Evidence of the development of the cultural landscape includes, for example, terraces formerly used for agriculture, sunken lanes and old mining tunnels.

#### 🕒 Goals

- Preservation of the characteristic, historical cultural landscape of the Thuringian Forest, above all, undeveloped forest and landscape areas typical of the area, harmoniously embedded villages.
- Preservation of the landscape in building and infrastructural measures in the open countryside and in the transition to settlements, above all harmonious transitions from the edges of villages via mountain and orchard meadows to wooded areas.





## 5.2 Our way of doing business

### 5.2.1 Economy, trade, crafts and commerce

#### Resilience & sustainability

##### ⊕ Strengths

- Continuation of traditional crafts in modern enterprises
- Innovations from the TU Ilmenau for new impetus
- Increase in gross domestic product since the 1990s in the biosphere reserve (economic growth)
- Excellent, sustainably operating businesses

##### ⊖ Weaknesses

- Industrial wastelands still in existence

##### ↑ Mission statements

The innovative and traditional businesses located in the UNESCO Biosphere Reserve operate sustainably.

Regional economic cycles contribute to strengthening the biosphere region and its identity.

The businesses in the biosphere reserve are facing up to the challenges and opportunities of digitalisation.

##### ⊙ Goals

- Communication and appreciation of sustainably operating companies
- Increased awareness of the need for (and added value of) sustainable economic activity among companies in the region.
- Building regional value chains
- Expansion of digitalisation on services and the promotion of individual activities in rural areas in the biosphere reserve



#### Employment opportunities & skilled labour needs

##### ⊕ Strengths

- Large and economically strong businesses, medium-sized companies as well as numerous small and craft enterprises
- Wide-ranging industry

##### ⊖ Weaknesses

- Too few jobs within the biosphere reserve to cover employment needs
- Decades of brain drain of young professionals
- Many making the move elsewhere
- On the other hand, many people looking for housing, e.g. in the glass industry and in the spice factory, combined with traffic flows.
- Skilled labour needs of companies cannot currently be met from the region
- Communication offers and job exchanges reach larger companies and cities, but less so small companies and municipalities.
- Lack of networks for the external communication of the biosphere reserve's strengths.
- Lack of use of the label "UNESCO Biosphere Reserve" to attract skilled workers and residents.

##### ↑ Mission statements

The UNESCO biosphere reserve offers a wide range of employment opportunities.

##### ⊙ Goals

- Strengthening rare professions in vocational training in the biosphere reserve
- Attracting junior staff for traditional crafts professions, in particular (ensuring company succession)
- Greater use of the positive image of the "UNESCO Biosphere Reserve" label to attract skilled workers; and for employee retention

#### Regional marketing

##### ⊕ Strengths

- Marketing of regional products (Thuringian Forest) via the online platform Thuringian Forest Shop
- "Indulgence Weeks in the Biosphere" bring regional producers and consumers together

##### ⊖ Weaknesses

- No quality seal for the biosphere reserve or the Thuringian Forest so far.
- Too little communication between the stakeholders about life and activities in the biosphere reserve.

##### ↑ Mission statements

Regional products from the biosphere reserve are advertised with a "BR seal" and contribute to strengthening the region and its identification.

##### ⊙ Goals

- Certification and marketing of regional products under the label "Product from the Thuringian Forest Biosphere Reserve" as part of and in extension of the partner network in the biosphere reserve.
- Increased sale of regional sustainable products at markets, in shops and producer shops in the biosphere reserve.



## 5.2.2 Mountain meadows and agriculture

### Conservation and development of mountain grassland

#### ⊕ Strengths

- Key landscape aesthetic and nature conservation significance of the mountain grassland
- Exclusive extensive cultivation of the mountain grassland by full-time and part-time farmers as well as landscape maintenance companies
- Management and maintenance via EU, federal and state funding programmes
- Investigation of more than 2,000 ha of mountain grassland in the Thuringian Forest Nature Park (and biosphere reserve) as part of the "OPTIGREEN" model and demonstration project (2017-2019)

#### ⊖ Weaknesses

- Scrub encroachment of meadow valleys due to under-use or lack of use, resulting in the risk of further serious extensification and degeneration of mountain grassland (OPTIGREEN, 2017-2019)
- No 100 % management of grassland despite subsidies

#### ↑ Mission statements

The large and small mountain meadows in the densely wooded low mountain landscape are characteristic of the landscape, offer attractive views and are of great importance for the identification of the people living here with their homeland. The mountain grassland is secured in terms of quality and quantity in the long term through management with grazing and mowing and preserves the biodiversity of the area's typical biotic communities, as well as plant and animal species. The biosphere reserve is oriented towards the general model of low mountain ranges until 2030, which was elaborated in Schnett in June 2018 (low mountain range strategy).

#### ⊙ Goals

- Preservation of all grassland areas with special attention to colourful, herb-rich mountain and valley meadows and to indicator and target species such as arnica, globeflower and native orchids.
- Implementation of the FFH management plans in the buffer zones
- Preservation of grassland habitats with their biodiversity in deficit-laden areas by working out alternative solutions and resuming cultivation
- Implementation of the findings from the OPTIGREEN project (minimum farming standards, nutrient management etc.)
- Demand-oriented management of the mountain meadows for the production of high-quality fodder (hay) and meat







## Support for enterprises

### ⊕ Strengths

- Management of the mountain grassland by grazing with cattle, sheep and horses or by mowing for winter fodder production
- Testing of alternative grazing forms with improved economic viability

### ⊖ Weaknesses

- Deficit areas on island sites that are remote, steep, wet, difficult to reach or unprofitable for farmers.
- Reduced growth for grazing animals or lower harvests due to climate and use conditions
- Reduction in the diversity of agricultural uses due to demographic development, a high proportion of manual work on farms and a shortage of skilled workers
- Deterioration of marketing opportunities for landscape hay due to decreasing animal numbers, quality problems in the hay as well as high time and technical costs

### ↑ Mission statements

The income situation of farming businesses in the UNESCO Biosphere Reserve is economically adequate and secured in the long term. The management of grassland is one of the public goods that are essential steering aspects in the promotion of steering measures. There is an awareness for sustainable

consumption among the population and guests of the biosphere reserve.

### ⊙ Goals

- Preservation of farms and their competitiveness through support at all levels to safeguard management and maintenance efforts on the mountain grassland
- Identification of sites for withdrawal-oriented fertilisation
- Exemplary testing and scientific monitoring of new funding instruments with regard to public welfare services
- Consumer education on the advantages of regional products in terms of sustainable lifestyles
- Adaptation of the agri-environmental measures and the KULAP to the needs of low mountain farming in the biosphere reserve
- Update of the KULAP support programme: Inclusion of plants worthy of protection, greater remuneration for livestock farming on grassland

## Regional marketing

### ⊕ Strengths

- Various initiatives to market mountain meadow hay ("Arnika" share with Naturpark Thüringer Wald e. V., establishment of hay exchanges)
- Implementation of regional markets in the biosphere reserve in 2017 and

2018 with great popularity among the population

- Since 11/2019 Online shop ("Thüringer Wald Shop") with products from the Thuringian Forest
- Establishment of the "Pleasure Weeks in the Biosphere" with the biosphere reserve hosts

### ⊖ Weaknesses

- No independent quality seal for products from the Thuringian Forest
- Too little communication among land users about life and activities in the biosphere reserve

### ↑ Mission statements

Regional products from the biosphere reserve are advertised with a "BR seal" and contribute to strengthening the region and its identification.

### ⊙ Goals

- Strengthening the regional marketing of agricultural products from the biosphere reserve
- Certification and marketing of regional products under the label "Product from the Thuringian Forest Biosphere Reserve" as part of and in extension of the partner network in the biosphere reserve
- Support for farmers through an exchange of experience with other biosphere reserves on the subject of marketing (e.g. Rhön Biosphere Reserve)







### 5.2.3 Forest, forestry and hunting

#### The future of our forest

##### ⊕ Strengths

- Oldest forest biosphere reserve in Germany (84 % forest share)
- Occurrence of rare native species such as black stork, wildcat and lynx
- Ongoing model project "Forest Restructuring in the Ridges of the Thuringian Forest under the Aspects of Climate Change" (ThüringenForst)
- Monitoring/forest condition mapping in the biosphere reserve's core areas
- Since 2009, Implementation of the habitat tree and deadwood concept
- FFH management plans (forest section) are available for the management of the buffer zone

##### ⊖ Weaknesses

- Changing forest images in a very short time due to climate change
- Deficits in infrastructural and human climate adaptation strategies with regard to increased forest fire risk, available fire-fighting water resources and increasing bark beetle infestation
- Deficits in the implementation of the habitat tree concept
- Insufficient communication between land users and stakeholders about life and activities in the biosphere reserve.

##### ↑ Mission statements

The biosphere reserve is characterised by diverse, resilient forests that can cope with the changes caused by climate change while fulfilling their basic functions and ecological services.

In the biosphere reserve, management is gentle and oriented towards the forest as an ecosystem, which promotes biodiversity in the forest.

The forests of the biosphere reserve fulfil important functions for soil protection, water retention, forest vegetation and landscape protection.

For the people in the biosphere reserve, the forest is both home and a place for gentle recreation.

##### ⊙ Goals

- Forest restructuring under the aspects of climate change
- General conservation of high altitude firs and silver firs
- Reactivation of resources for the higher forest fire risk to be expected in the course of climate change, including historic raft and fish ponds.
- Implementation of the habitat tree concept by concentrating habitat trees on suitable, small areas that are not used
- Increasing the diversity of use to improve biodiversity for the long-term preservation and stability of the forest
- Expansion of the monitoring of forest ecosystems
- Visitor guidance on the basis of the "Forests and Tourism" concept, taking

into account the zoning of the biosphere reserve

- Communication (locals and guests) regarding the principles of sustainable forestry with regard to the consequences of climate change in the biosphere reserve
- Implementation of the FFH management plans (forest component) in the buffer zones

#### Wood as a valuable regional raw material

##### ⊕ Strengths

- Management of the forest by ThüringenForst, private forest owners and local authorities according to the principles of sustainable forest management
- Extensive occurrence of wood as an energy source and building material.
- ThüringenForst as a partner of the "Holz von Hier" eco-label

##### ⊖ Weaknesses

- Currently lacking capacities for the acceptance and processing of spruce damaged wood due to drought and bark beetle infestation
- Current lack of regional processing or refinement of the harvested wood in the biosphere region.
- Lack of sawmills, especially for heavy timber
- No established seal of quality for sustainably produced wood products in the biosphere region.





#### ↑ Mission statements

The biosphere reserve's forests make a multi-faceted contribution to climate protection through CO<sub>2</sub> sequestration, the processing and refinement of wood for durable products and the use of wood to a large extent as a substitute for other materials in the biosphere reserve. The sustainably produced wood products are offered as a model under a seal of quality.

#### ⊙ Goals

- Strengthening the regional added value of wood by establishing value chains for processing and refining
- Promoting construction with regional timber as an alternative to building materials with "grey energy" and to strengthen regional building culture and identity
- Implementation of a quality label for sustainable wood products

## Hunting and regional marketing of game meat

#### ⊕ Strengths

- Regulated hunting throughout the biosphere reserve
- Game outlet in Suhl offering cut-up and portioned game meat
- Initiatives for the marketing of game products
- Marketing of domestic game by partner farms within the framework of the Autumnal indulgence weeks "Außergewöhnlich Wild" ("Extraordinary game")
- Offer of game meat in one piece by the forestry offices with high demand at Christmas

#### ⊖ Weaknesses

- Comparatively high game density in the biosphere reserve
- Problems with the management of mowing meadows by wild boars
- lack of sales points for game meat in the biosphere reserve

#### ↑ Mission statements

Hunting in the UNESCO Biosphere Reserve Thuringian Forest is carried out sustainably for the forest according to ecological and wildlife-biological principles.

Regional products from the biosphere reserve are advertised with a "BR seal" and contribute to strengthening the region and its identification.

#### ⊙ Goals

- Regulating the density of game to promote natural regeneration
- Support initiatives for the regional marketing of game from the biosphere reserve
- Certification and marketing of regional products under the label "Product from the Thuringian Forest Biosphere Reserve"







## 5.2.4 Mountain streams, bogs and water management

### Mountain streams

#### ⊕ Strengths

- High water quality in most mountain streams
- Projects for the renaturation, maintenance and development of near-natural mountain streams and sparse forest sites in floodplains in cooperation with ThüringenForst and the David Nature Foundation since 2002

#### ⊖ Weaknesses

- Existing deficits in mountain streams with regard to bank structures and longitudinal permeability
- Partial spread of invasive neophytes in the riparian area
- Insufficient attractiveness experience of the inner-city stream

#### ↑ Mission statements

The biosphere reserve is characterised by clear, near-natural and ecologically consistent mountain streams. In the light-flooded stream valleys, typical floodplain woody plants grow.

#### ⊙ Goals

- Renaturation of all mountain streams (longitudinal permeability & water structure quality)
- Careful handling and preservation of cultural-historical structures in the renaturation of mountain streams (river walls, bridges, old mill sites)
- Improving the experience of water bodies in the localities
- Development of a strategy for the reduction of neophytes in watercourses

### Bogs

#### ⊕ Strengths

- Occurrence of numerous bogs with a total area of 100 ha and important functions for the water balance system, the soil and the climate
- Revitalisation of approx. 50 % of the moorland

#### ⊖ Weaknesses

- Deficits in the revitalisation of smaller peatland sites

#### ↑ Mission statements

The biosphere reserve is characterised by numerous small-scale peatlands that are in a good state of conservation.

#### ⊙ Goals

- Revitalisation of small peatland sites
- Strategy for the long-term conservation of peatlands

### Water balance

#### ⊕ Strengths

- Ridge areas in the Thuringian Forest are among the areas with the highest precipitation in Thuringia
- Forests in the biosphere reserve fulfil an important flood protection and water retention function

#### ⊖ Weaknesses

- Abandonment of smaller fish and ponds

#### ↑ Mission statements

With regard to the water balance and the water retention function, the Biosphere reserve is an exceptionally resilient region.

#### ⊙ Goals

- Long-term preservation of the water balance and water retention functions in the biosphere reserve
- Assessment and conservation of historic raft and fish ponds

### Supply and disposal

#### ⊕ Strengths

- Secure drinking water supply in biosphere region
- Schönbrunn dam with top-quality drinking water, including for large parts of southern Thuringia
- Improving wastewater disposal through the construction of new treatment plants

#### ⊖ Mission statements

- Need for renovation and new construction of domestic wastewater treatment plants

#### ↑ Leitbilder

The biosphere reserve has a great responsibility for its own supply of drinking water and for the supply beyond the boundaries of the biosphere reserve. Wastewater disposal in the biosphere reserve is carried out sustainably.

#### ⊙ Goals

- Preservation and long-term safeguarding of the drinking water supply, including beyond the biosphere reserve
- Ensuring environmentally sound and modern wastewater disposal in the municipalities of the biosphere reserve
- Ensuring the outstanding ecological status of mountain streams





## 5.2.5 Energy and climate protection

### Strategies and concepts

#### ⊕ Strengths

- Regional energy and climate concepts for southwest and central Thuringia
- IIm-Kreis: Adoption of a climate protection programme and the goal of becoming energy self-sufficient through the expansion of renewable energies.
- Active climate protection manager in the IIm-Kreis
- Environmentally conscious regional energy suppliers that offer green electricity

#### ⊖ Weaknesses

- No energy and climate protection strategy for the biosphere reserve

#### ↑ Mission statements

The population living in the biosphere reserve, the municipalities and the companies use renewable energies for energy self-sufficiency and contribute to increasing energy efficiency and reducing energy consumption on the basis of an energy and climate protection concept. Support for the international initiative of the "2000-watt society" for climate protection.

#### ⊙ Goals

- Preparation of an energy and climate protection concept for the biosphere reserve
- Analysis and exploitation of existing sources of energy saving potential (incl. public transport)
- Preparation of neighbourhood concepts for energy saving in the localities of the biosphere reserve
- Communication of the "2000-watt society" as a contribution to climate protection



### Use of renewable energies

#### ⊕ Strengths

- Increasing number of solar installations in the biosphere region
- Six biogas plants in operation
- Historical use of hydropower, six small hydropower plants in operation today
- Availability/use of firewood as another form of renewable energy

#### ⊖ Weaknesses

- Little renewable energy generation overall in the region compared to the national average
- Share of renewable energy through solar plants is far below the national average
- Share of renewable energy from hydropower is significantly below the national average

#### ↑ Mission statements

The people in the biosphere reserve use existing natural resources (water, wood, sun, biomass) for sustainable energy production and contribute in regional cycles to the energy supply of private households, municipalities and businesses in the UNESCO Biosphere Reserve (produce regionally and consume locally).

#### ⊙ Goals

- Increased region-specific use of existing natural resources (sun, water, wood, biomass)
- Regional energy suppliers offer 100% renewable energies

### Energy in construction

#### ⊕ Strengths

- Roughly 50 % of grey energy in construction materials is stored in the building

#### ⊖ Weaknesses

- Low use of wood from the Thuringian Forest as a regional building material

#### ↑ Mission statements

By using regional building materials, the economic cycles in the biosphere reserve are strengthened and energy is saved.

#### ⊙ Goals

- Building regional value chains in the construction industry
- Increased use of domestic wood as a regional building material in industry and construction as a contribution to climate protection



## 5.2.6 Tourism, recreation and nature experience

### Tourism as an economic factor

#### ⊕ Strengths

- Known throughout Germany and a popular tourist region
- Constant number of overnight stays
- Tourism as an important economic factor for the region

#### ⊖ Weaknesses

- Acute shortage of skilled workers in the hospitality industry
- Uneven distribution of accommodation, gastronomy and mountain huts
- Tourist vacancy rate

#### ↑ Mission statements

Tourism in the biosphere reserve is an important economic factor in the long term, it secures jobs and offers opportunities for the future.

#### ⊙ Goals

- Revitalisation of vacant tourist sites
- Making the tourism destination more attractive for professionals from the hospitality industry

- Improving the skilled labour situation in the hospitality industry by supporting the generational change, strengthening of training offers and improved mobility for trainees

### Tourist infrastructure and offers, experiencing nature, year-round tourism

#### ⊕ Strengths

- Diverse tourist infrastructure
- Thuringian Forest is a summer and winter tourism region
- Special nature experience offers

#### ⊖ Weaknesses

- Barely any attractive offerings of bad weather
- Impact of climate change on winter tourism
- Tourism infrastructure not established everywhere with sufficient quality and the right certifications
- Some places are no longer certified as state-recognised resorts

#### ↑ Mission statements

The biosphere reserve is a climate-resilient region with soft tourism. Tourism in the biosphere reserve is characterised by appealing seasonal, nature-oriented outdoor offers, which are complemented by all-year-round offers that can be used regardless of the weather.

The special features of the biosphere reserve can be experienced by the guest in many places.

#### ⊙ Goals

- Development of a strategy for winter tourism in the biosphere reserve with regard to adaptation to climate change
- Qualification, upgrading and sustainable safeguarding of tourism infrastructure and nature-based outdoor offerings in the biosphere reserve
- Qualitative upgrading of existing and development of new year-round offers
- Safeguarding and strengthening of certified recreational and health resorts
- Product and offer development of special nature experience offers





## Tourist mobility

### ⊕ Strengths

- Rennsteig ticket in combination with the Thuringian Wald Card for overnight guests in numerous spa and recreation resorts in the biosphere reserve

### ⊖ Weaknesses

- Gaps in the tourism transport infrastructure
- No all-encompassing offer of the Rennsteig ticket in the biosphere reserve.

### ↑ Mission statements

Nature experience offers in combination with climate-friendly mobility (by bus and train) are a trademark of the region.

### ⊙ Goals

- area-wide digital offer of the guest card with Rennsteig-Ticket and Thüringer Wald Card for overnight guests in all municipalities (can be digitally checked and utilised)

## Tourist marketing and cooperation

### ⊕ Strengths

- Supra-regional and regional promotion of the biosphere reserve by tourism organisations (Thüringer Tourismus GmbH, Regionalverbund Thüringer Wald), local authorities and service providers.
- Biosphere reserve is the core of the tourist product brand Naturregion Biosphäre Thüringer Wald and an important sub-region.
- Various hotels, restaurants and nature guides are ambassadors for the biosphere reserve and are certified in the partner network.

### ⊖ Weaknesses

- No independent tourism organisation structure for the sub-region of the biosphere reserve as a link between the localities and the association Regionalverbund Thüringer Wald e. V.
- Insufficient communication by the stakeholders and tourism providers about life and activities in the biosphere reserve.

### ↑ Mission statements

The tourism service providers in the UNESCO Biosphere Reserve Thuringian Forest attach importance to sustainable and future-oriented offers. Strengthening the “UNESCO Biosphere Reserve Thuringian Forest” brand

### ⊙ Goals

- Tourism marketing of the UNESCO biosphere reserve as the core of the product brand “Naturregion Biosphäre Thüringer Wald” in accordance with the Tourism Concept “Thüringer Wald 2025”.
- An efficient tourism organisation form for the biosphere reserve for more robust cooperation and communication between the municipalities, service providers, stakeholders and for identification with the biosphere reserve.
- Expansion of the partner network in the hotel and gastronomy sector



## 5.3 Our social life

### 5.3.1 Population, demography and municipal development

#### Settlement development/ building culture

##### ⊕ Strengths

- harmonious embedding of settlements in the cultural landscape
- attractive village centres with typical regional slate and half-timbered buildings
- historically valuable building fabric, several architectural monuments
- attractive place to live due to the existing vicinity to nature and charming location

##### ⊖ Weaknesses

- Strong deformation of the historic building fabric

##### ↑ Mission statements

The settlements are part of the cultivated landscape and are closely interwoven with the surrounding cultivated landscape through attractive local transitions such as gardens, orchards, hedges and rows of trees. The population in the biosphere reserve is characterised by a high degree of appreciation for the regional building culture.

##### ⊙ Goals

- Typical regional design for the preservation of the traditional look of the towns and villages and their edges,

as well as the preservation and continued development of the typical regional building culture

- Promoting sustainable construction with regional wood
- Increasing the attractiveness of places by promoting biodiversity on communal open spaces.

#### Community development

##### ⊕ Strengths

- KOMET project strengthens settlements in the project area and offers new development approaches
- Municipal development concepts
- Low proportion of settlement and traffic area
- Predominantly financially robust municipalities

##### ⊖ Weaknesses

- Vacancies in town and village centres
- Investment and refurbishment backlog
- Large-scale contaminated sites within municipalities
- Numerous underused residential buildings
- Insufficient emphasis by the municipalities on their own strengths
- A lack of dialogue forum for intermunicipal cooperation in the biosphere reserve.
- Expandable digital infrastructure

##### ↑ Mission statements

Settlement development in the biosphere reserve follows the principle of internal development over external development:

The structural valorisation and preserving of the substance of the town and village centres is considered a core task in terms of settlement structure in all municipalities in the Thuringian Forest biosphere reserve (highest priority in settlement development).

Settlement development is based on coordinated concepts and is strengthened by projects, initiatives and inter-communal cooperation.

The municipalities identify with the biosphere reserve.

The municipalities in the biosphere reserve are facing up to the challenges and opportunities of digitalisation.

##### ⊙ Goals

- Attractive town and village centres for residents and guests
- Reduction of building vacancies in the town and village centres through active vacancy management
- Reduction of refurbishment and investment backlogs
- Remediation and revitalisation of contaminated sites
- Use of municipal options to minimise land use and land sealing
- Strengthening inter-communal cooperation through a biosphere reserve dialogue forum
- Expansion of digitalisation as an opportunity to improve the attractiveness of places as places to live and work





## Social life

### ⊕ Strengths

- Associations and initiatives strengthen the region's social life

### ⊖ Weaknesses

- Lack of recreational opportunities for the elderly and young people

### ↑ Mission statements

Social life is diverse. Voluntary work in the UNESCO Biosphere Reserve is encouraged and appropriately recognised. Younger people are also motivated to participate. The experienced "activists" accompany and support the "Newcomers".

### ⊙ Goals

- Improvement of the leisure offer for young people, as well as for the older population, with the involvement of existing associations and initiatives
- Communication of the leisure activities in the biosphere reserve

## Services of general interest

### ⊕ Strengths

- Secured childcare in day care centres and schools
- Affordable real estate and housing
- Young people moving into the biosphere reserve, demand for rental housing and new construction

### ⊖ Weaknesses

- Districts with gaps in supply
- Ageing of the population
- Minimal needs-based housing for single households and senior citizens

### ↑ Mission statements

The places in the UNESCO Biosphere Reserve Thuringian Forest are worth living in for all age groups. The UNESCO Biosphere Reserve Thuringian Forest offers opportunities for "urban villages".

### ⊙ Goals

- Improvement in the permanent provision of amenities, as well as digital and mobile offers (in some places)
- Creation of needs-based housing for single households, young families and senior citizens through the conversion of existing buildings or the construction of new buildings adapted to the regional building culture.
- Creation of offers for urban lifestyles in the biosphere reserve ("urban villages")





## 5.3.2 Mobility and transport

### Mobility concept

#### ⊕ Strengths

- Good networking of the biosphere reserve administration with the relevant stakeholders in the field of mobility.
- Existing integration of the biosphere reserve in the marketing activities and communication of the transport companies.
- Area-wide local transport plans, framework transport plan for southern Thuringia

#### ⊖ Weaknesses

- No mobility concept for the biosphere reserve

#### ↑ Mission statements

Mobility in the biosphere reserve is designed to be concept-based, sustainable and climate-friendly, and is being actively expanded in the spirit of public welfare.

#### ⊙ Goals

- Development of a sustainable and climate-friendly mobility concept for the biosphere reserve with a focus on public transport

### Individual transport

#### ⊕ Strengths

- A 71/73 as a good connection
- Sufficient number of parking spaces
- Outstanding internal development of the biosphere reserve

#### ⊖ Weaknesses

- High share of individual transport
- Problems with snow removal from the Rennsteig car parks in winter
- No P+R concept and no P+R spaces available

#### ↑ Mission statements

The people in the biosphere reserve increasingly use public transport and other sustainable forms of mobility instead of individual car transport.

#### ⊙ Goals

- Reduction of traffic, especially motorised individual transport
- Promotion of alternative mobility offers (car sharing, carpooling)



### Public transport

#### ⊕ Strengths

- Erfurt ICE hub offers good connections to long-distance rail services
  - Good regional transport connections via several stations
  - Historically developed railway infrastructure dedicated to rail traffic
  - Freight transport by rail & loading points road/rail
  - Wide area is provided with basic public transport (buses) in all municipalities.
  - Voluntary organisation of most public transport providers in networks/ public transport associations
  - Information on all public transport services via the Thuringian data hub
  - Uniform, wide-ranging e-tariff for all public transport providers as of 2022
- Well-developed tourist public transport: daily buses, Rennsteig shuttle to

Rennsteig station on weekends and public holidays

- Historical steam train rides
- Rennsteig ticket as guest card
- UNESCO Biosphere Reserve is an important destination serviced by Germany's national rail service - Deutsche Bahn (DB)
- Destination Nature Award 2018

#### ⊖ Weaknesses

- No attractive public transport services in the evening hours
- Inadequate connection of the side valleys
- Intermittent services only exist in rudimentary form
- Problems concerning responsibility for cross-county lines
- Too little freight traffic on the railways
- Taxi prices in intercity transport not socially acceptable





- Digitalisation of information services can be expanded
- No effective bus connection along the Rennsteig (Oberhof - Masserberg)
- No regular train service between the train stations Rennsteig - Schleusingen - Themar
- Rennsteig tickets are not valid in Suhl, Zella-Mehlis, Oberhof and other larger municipalities without recognition as spa town.
- No digital recording of the use of the Rennsteig ticket

#### ↑ Mission statements

The public transport system with buses and trains is aligned with its capacity to offer services, and its offer and quality are secured in the long term. Locals and tourists benefit from this. The digitalisation of sales and the distribution of information regarding public transport services is being comprehensively implemented. The UNESCO Biosphere Reserve is easily accessible for tourists by public transport and can be experienced on site.

#### ⊕ Goals

- The supply-oriented closure of gaps in public transport by bus and train for locals and tourists in the biosphere reserve.
- Upgrading and designing public transport mobility hubs and points (bus stops and train stations)
- Socially acceptable tariffs for taxi and on-demand buses as part of public transport
- Visualisation of digitalised public transport information on buses and trains
- Equipping all public transport companies with the latest digital passenger information and ticket sales systems.
- Expansion of tourist mobility offers with bus and train as climate-friendly quality and service offers for overnight guests (combination of guest card with Rennsteig Ticket and Thuringian Wald Card).

## De-carbonisation

#### ⊕ Strengths

- E-bike sharing in the KOMET project
- Implementation of the EU's Clean Vehicles Directive in urban transport from mid-2021 onwards

- Public transport operators use vehicles of pollutant class V or better
- Public transport operators already use renewable energy sources

#### ⊖ Weaknesses

- Insufficient level of infrastructure for e-mobility
- Few offers/providers in the area of e-mobility or car sharing
- The basis of the energy-driven modes of transport is predominantly fossil fuels from external sources.

#### ↑ Mission statements

De-carbonised drives based on regenerative forms of energy will become the basis of mobility.

#### ⊕ Goals

- Increasing the share of electro-mobility in private and public transport
- Testing and use of all de-carbonised renewable energy sources in mobility
- Implementation of the minimum requirements of the EU Clean Vehicles Directive for public transport operators



## 5.3.3 Culture and regional identity

### Cultural heritage

#### ⊕ Strengths

- Glassblowing, dialects typical of the region, charcoal burning, "Olitäten" (traditional herbal medicines) and Kneippen as intangible cultural heritage
- Preservation and continuation of traditions from the Thuringian Forest

#### ⊖ Weaknesses

- Securing business succession in traditional craft
- vehicles of pollutant class V or better
- Public transport operators already use renewable energy

#### ↑ Mission statements

The intangible cultural heritage of glassblowers, dialects typical of the region, charcoal burning, Olitäten (traditional herbal medicines) and Kneipp will be preserved in the long term and will be continued by the younger generation. In the process, the opportunities arising from immigration are also being exploited.

#### ⊕ Goals

- Preservation, transmission and further development of traditions and cultural heritage in the biosphere reserve
- Attracting junior staff professions for traditional crafts (securing company succession)



## Associations and voluntary work

### ⊕ Strengths

- Strong network of association structures and voluntary activities
- Support for museums and exhibitions through private commitment and associations

### ⊖ Weaknesses

- Ageing in the association sector

### ↑ Mission statements

Voluntary work in the biosphere reserve is encouraged and appropriately recognised. In the numerous clubs, the bond with the region is fostered and passed on to the next generation.

Younger people are also motivated to participate. The experienced “activists” accompany and support the “newcomers”.

### ⊙ Goals

- Securing and further developing the club structures (attracting young talent and digital offers)
- Development of sustainable approaches for the promotion and appreciation of voluntary activities
- Support for volunteers through contact persons

## Cultural life / cultural institutions

### ⊕ Strengths

- Variety of events and typical regional festivals
- Implementation of a few (major) events with regard to sustainability
- Thematically diverse and, in spatial terms, relatively evenly distributed museum landscape
- First efforts to network the museums

### ⊖ Weaknesses

- Low awareness of sustainability at many events
- Lack of digital networking of museums and collaborative, high-quality advertising

### ↑ Mission statements

In the UNESCO Biosphere Reserve Thuringian Forest, events and festivals are held in the spirit of sustainability. Visitors and residents of the biosphere reserve enjoy finding out about regional history and culture in the museums and local history rooms. Museums and heritage centres see themselves as stakeholders in the educational landscape of the biosphere reserve.

### ⊙ Goals

- Supporting event organisers in sustainable organisation and implementation
- Stronger networking of museums and local history rooms
- Creation of digital advertising for museums and heritage centres

## Cultural scene

### ⊕ Strengths

- Enrichment of the offer in the biosphere reserve for locals and guests through important cultural institutions
- Diversity of stakeholders creating cultural offerings
- First good approaches in the development of a modern regional cultural scene

### ⊖ Weaknesses

- Too few cultural offers for young people
- Perceptibility of existing offers expandable

### ↑ Mission statements

The UNESCO Biosphere Reserve is characterised by cultural diversity (and openness for people).

There is a modern regional cultural scene that is supported by young cultural initiatives.

### ⊙ Goals

- Creation of a comprehensive cultural offer for youths and young adults (incl. digital offers).
- Establishment of a regional cultural scene for cultural diversity in the biosphere reserve
- Promotion of young cultural initiatives
- Improving the visibility of cultural offerings







## 5.4 Our knowledge

### 5.4.1 Education for Sustainable Development (ESD)

#### Educational offer

##### ⊕ Strengths

- Modern and versatile exhibition in the information centre in Schmiedefeld a. R.
- A wide range of activities for children of nursery and school age (up to approx. 6th grade).
- Numerous guided hikes with certified nature and landscape guides, partner nature guides and rangers
- Germany- and Thuringia-wide networking of the administration in the education sector

##### ⊖ Weaknesses

- Educational offers so far geared to selected target groups

##### ↑ Mission statements

The biosphere reserve is equipped with an extensive educational programme for all age groups and target groups. The offers of the education actors complement each other and are jointly coordinated.

##### ⊙ Goals

- Development of an educational concept for ESD offers in the biosphere reserve with the involvement of all educational institutions and offers and adaptation to different target groups.
- Educational concept as a guideline for the further development of existing offers

#### Schools and day care centres

##### ⊕ Strengths

- Offer of the biosphere reserve administration function for educational work with schools and day-care centres (junior rangers)
- Cooperation with the UNESCO school Dr.-Max-Näder Gymnasium in Königsee (Saalfeld-Rudolstadt district)
- Possibility of certification of biosphere schools/day care centres

##### ⊖ Weaknesses

- Cooperation of the biosphere reserve administration function with schools and day care centres could be expanded

##### ↑ Mission statements

The principles of education for sustainable development are anchored in schools and day care centres in the biosphere region. Schools and day care centres in the biosphere region use the offers of the regional education stakeholders for educational work.

##### ⊙ Goals

- Expansion of cooperation and consolidation of cooperation with schools, day care centres and school hostels ("Schullandheimen")
- Improve awareness of the educational work, curriculum-based educational offers and opportunities in the biosphere reserve
- Establishment of biosphere-schools, -day-care-centres and -"Schullandheimen"

#### Networking of education stakeholders

##### ⊕ Strengths

- Numerous educational stakeholders and diverse offers for ESD
- Existing educational infrastructure (nature trails, information boards)

##### ⊖ Weaknesses

- Insufficient networking of education stakeholders
- Need for the modernisation of the education infrastructure

##### ↑ Mission statements

The UNESCO Biosphere Reserve is an established educational landscape in which the educational stakeholders (administration of the biosphere reserve, associations, initiatives, museums, local history rooms, restaurateurs, tourism experts, day care centres to adult education centres, school boarding schools, universities, the Chamber of Crafts of Southern Thuringia, ZNL, Thuringia Forestry, nature conservation associations) are networked and regularly exchange information.

##### ⊙ Goals

- Stronger networking of education stakeholders
- Agreement among education stakeholders on uniform quality standards for education and training programmes
- Integration of digital offers to increase attractiveness for younger generations
- Expansion and updating of the education infrastructure
- Further training of education providers on the topic of ESD



#### ↑ Mission statements

The UNESCO Biosphere Reserve is supported by the entire region and filled with life.

The administration function of the UNESCO Biosphere Reserve Thuringian Forest supports sustainable development in the region in many ways. It acts in an appreciative, transparent, cooperative and open manner towards stakeholders in the region and takes modern approaches to public relations and communication. The administration function makes the biosphere reserve visible in external communication through projects, results and the focus on the MAB criteria. The biosphere reserve's partners from various fields of work and life act as ambassadors and supporters of the idea of a UNESCO biosphere reserve.

### 5.4.2 Public relations, communication and marketing

#### ⊕ Strengths

Biosphere reserve administration function:

- Upgrading of the region through international UNESCO title
- Public relations work on activities such as projects, ESD offers, exhibitions, research via high-quality print products, press articles, website of the biosphere reserve.
- Development of a communication strategy
- Good networking with local and regional stakeholders
- Thuringia and national communication via TMUEN, Nationale Naturlandschaften e. V. (umbrella brand – uniform corporate design).
- Internationally via UNESCO, the German Commission for UNESCO and the German MAB National Committee
- Nationwide promotion of the biosphere reserve through cooperation partners such as Thüringer Tourismus GmbH, Regionalverbund Thüringer Wald e. V., Fahrtziel Natur (including with social media).

#### ⊖ Weaknesses

Biosphere reserve administration function:

- Too much focus on events and nature experience offers, but too little focus on projects and their effectiveness.
- Too little emotional appeal to stories from the area, little storytelling about people behind the projects
- Insufficient communication of the added value of the biosphere reserve, e.g. for the population.
- Barely any use of digital technologies such as social media, newsletters, etc.

#### ⊙ Goals

- Implementation of communication Strategy with a focus on projects, their effectiveness and the stakeholders involved by the biosphere reserve administration function.
- Expansion of modern digital technologies in communication
- Further intensification of the efforts to identify the communities and the population with the biosphere reserve.
- Extension and expansion of the biosphere reserve's partner network







### 5.4.3 National networking and cooperation in the world network of UNESCO biosphere reserves

#### ⊕ Strengths

- Worldwide integration of the biosphere reserve in UNESCO communication
- National and Thuringia-wide networking (German biosphere reserves, the association Nationale Naturlandschaften e.V., Biosphere.Centre at the Eberswalde University for Sustainable Development (HNEE), UNESCO School in Königsee, UNESCO Global Geopark Thuringia Inselsberg-Drei Gleichen)
- Participation in international workshops
- Cooperation with the UNESCO Biosphere Reserve Central Balkans (Bulgaria)
- International visits involving delegations from Eastern Europe to the biosphere reserve
- Exchange visits with other biosphere reserves via the partner network

#### ⊖ Weaknesses

- Minimal use of exchange offers of the association Nationale Naturlandschaften e.V., the European Voluntary Service, the International Cultural Voluntary Service as part of the German UNESCO commission

#### ↑ Mission statements

The stakeholders in the UNESCO biosphere reserve are well-represented nationally and well-networked globally. They operate in a process of professional exchange on different topics with other biosphere reserves.

#### ⊙ Goals

- Increased use of exchange offers from the association "Nationale Naturlandschaften e.V.", European Voluntary Service, the International Cultural Voluntary Service as part of the German UNESCO commission
- Increased use of digital structures for further networking



### 5.4.4 Research and monitoring

Research and monitoring are essential tasks of biosphere reserves worldwide. Research and monitoring work have been carried out in the biosphere reserve since the 1980s. Since 2017, the biosphere reserve has been integrated into the integrative monitoring programme for Germany's Natural Landscapes.

In 2018 a research and monitoring concept was presented for the UNESCO Biosphere Reserve Thuringian Forest. In terms of content, the focus is on ecological, economic and social issues, as well as on special challenges such as biodiversity, climate change, population development, regional value creation and communication. Further research projects were identified in the framework concept (see chapter 7).



## 6 | Lead projects

The framework concept contains a total of 18 lead projects. Lead projects bundle topic-specific measures and sub-projects and are particularly significant for several fields of action. With their exemplary or innovative character, they concern the entire biosphere reserve and can be implemented as a priority within (the first) ten years.



### 6.1 Large-scale nature conservation project “Wild spring brooks, bogs and mountain meadows in the Thuringian Forest biosphere reserve”.

Since 2011, the David Nature Foundation (Naturstiftung David) has been committed to the conservation of forest streams in the Thuringian Forest. Thus, by the end of 2019, a total of 160 km of watercourses in the central and western Thuringian Forest has been vastly improved from an ecological perspective. In 2021, the project application for a large-scale nature conservation project was submitted with the title “Wild spring brooks, bogs and mountain meadows in the Thuringian Forest Bios-

phere Reserve” (“Wilde Quellbäche, Moore und Bergwiesen im Biosphärenreservat Thüringer Wald”).

In contrast to the predecessor projects of the David Nature Foundation (Naturstiftung David), the large-scale nature conservation project now covers the entire biosphere reserve. Within a period of ten years, stretches of water that are far removed from nature are to be re-naturalised, damaged bogs revitalised and overgrown mountain meadows restored.

#### The lead project includes the following sub-projects.

- Restoration of the ecological passability of headwater streams and upper reaches of streams over a watercourse length of approx. 500 km and ecological optimisation of 1,000 transverse structures.
- Revitalisation of up to 25 smaller peatlands
- Restoration of up to 30 ha of scrubby mountain meadows
- Development of long-term effective utilisation concepts for up to 750 ha of existing mountain meadows
- Control of invasive alien plant species in the vicinity of biotopes worthy of special protection.
- Sponsorships with regional schools
- Information measures accompanying the project involving the project's flagship species (black stork, fire salamander, troll flower, spherical devil's claw).







## 6.2 Federal model project “The power of our rural region – Resilience through regional resource usage in the UNESCO biosphere reserve Thuringian Forest” (“Kraft der ländlichen Region – Resilienz durch regionale Ressourcennutzung im UNESCO-Biosphärenreservat Thüringer Wald”).

There are few local value-added cycles in the biosphere region. The resources used in the region are often from other regions and sometimes even other continents. As a result, there is a dependence on supra-regional and global structures. Within the framework of the federal model project “The Power of our Rural Region” (“Kraft der ländlichen Region”), a strategy for the regional use of resources under sustainable and ecological aspects is to be developed for the biosphere reserve. The aim is to anchor in the identity of the region the self-confidence to contribute to the important issues of humanity as a whole through local action.

With regard to the focal resources of wood, water, human capital and regional products, the utilisation and marketing strategies for regional resources are to be analysed and concepts for the (re-) establishment of local value-added cycles are to be demonstrated.

### The lead project includes the following sub-projects:

- Regional processing and use of wood as an energy source, establishment of a model woodchip combustion plant
- Regional processing and use of wood as a building material, establishment of a heavy timber sawmill
- Conception of a framework curriculum for a new training occupation “Universal Landscape Manager”, which combines the occupational fields of forestry farmers, farmers and landscape managers
- Improving the education and skills situation in the biosphere reserve through an education campus in the town of Großbreitenbach
- Investigation of model hydropower generation at the “Lütschetsperre” in connection with local recreation
- Certified regional products from the Thuringian Forest Biosphere Reserve



## 6.3 Thuringian Forest in historical times

Thuringian Forest has always provided people with raw wood and food. Typical forest trades included rafting, forest charcoal burning, woodcutting, resin scraping (for pitch production) and glass-making. Today, the intangible cultural heritage still includes glass-blowing, charcoal making, the tradition of herb women and the mobile apothecaries (known as the “Buckelapotheker”), as well as the numerous dialects and the practice of Kneipp therapy.

Thuringian Forest in Historic Times” (“Der Thüringer Wald in historischen Zeiten”) aims to create an extracurricular place of learning where the life and work of our ancestors in the Thuringian Forest can be conveyed in a lively way. The core of the lead project is the topic of sustainability in the triad of economic, ecological and social perspectives. The aim is to show how natural resources were used in the past and, at the same time, to explore the question of what parallels there are to our lives today and how we want to work and live sustainably in the future.

### The following sub-projects are possible for the lead project:

- Historical forest use and life and crafts in the Thuringian Forest
- Historical meadow use and the tradition of the region’s apothecaries (“Buckelapotheker”)
- Water and hydropower, model installation of a micro hydropower plant
- Educational programmes on peatlands and peat cutting
- Experience and hands-on activities



## 6.4 Partner network – Biosphere Reserve

In the UNESCO Biosphere Reserve Thuringian Forest, 17 partners, including hotels, restaurants, nature guides and Rennsteiglauf GmbH, are currently certified according to the quality and environmental standards of the National Natural Landscapes. They function in the region as ambassadors for the protection and preservation of the biosphere reserve and jointly pursue sustainable regional development.

In cooperation between the administration function of the UNESCO Biosphere Reserve Thuringian Forest and regional companies, service providers or private individuals, the network is to be expanded with further partners such as regional producers and providers of holiday apartments in the region. In order to secure regional added value, it is important to initiate an independent quality seal for products or services from the biosphere reserve as part of the expansion of the partner network.



*Bark beetle areas: View of the “Holzberg” over the Heidelberg Valley in Schönbrunn*

### The lead project includes the following sub-project:

- certified regional products from the Thuringian Forest Biosphere Reserve (part of the federal model project “The Power of our Rural Region”)



## 6.5 Forest restructuring in the high and ridge areas under the aspects of climate change

The aim of the forest restructuring measures in the Thuringian Forest is to develop a resistant mixed mountain forest with native tree species such as silver fir, red beech and sycamore maple instead of pure spruce stands in the long term. The current model project “Forest restructuring in the high and ridge areas under the aspects of climate change” is to be continued from 2024 and extended to the entire area of the Thuringian Forest Biosphere Reserve. Up to now, forest restructuring measures have concentrated mainly on the core area of Oberhof - Schmücke - Schmiedefeld.

Parallel to this, forest restructuring is now to be extended to the middle and lower altitudes of the biosphere reserve, which have not been included in the setting of the model project so far.

*Apple juice from the Suhl-Dietzhausen meadow orchard*

### The lead project includes the following sub-projects:

- further development of concepts for dealing with bark beetle infestation
- Continuation of silver fir seed collection in the core area of the Thuringian Forest Biosphere Reserve
- Water retention measures in the forest
- Evaluation of the hunting strategy
- Public relations work on forest restructuring

The forest conversion project is closely related to several research projects of the framework concept, such as the monitoring of the forest condition in all zones of the biosphere reserve, the long-term observation of the stability of dying spruces in core areas and the research on tree species of different origins.



## 6.6 Building Culture – Biosphere

The region of the biosphere reserve is characterised by historically valuable building substance and several architectural monuments, as well as attractively designed village centres. However, part of the historic building fabric is heavily over-formed and has design flaws and atypical materials. Therefore, the awareness of regional building culture should be strengthened among the population as well as among professionals and architects. The aim is to ensure a regionally typical, harmonious, durable and, in terms of use, diverse and sustainable building. For this purpose, a number of sub-projects were developed that deal with the topic of building culture in different ways.

### The lead project includes the following sub-projects.

- Development of a regional building culture catalogue including a presentation of the regional building culture conditions, instructions for architects and builders, as well as modern building techniques and design possibilities.
- "Simple" design statutes for the municipalities of the biosphere reserve for a regional settlement pattern
- Building culture in the biosphere reserve series of events for citizens and builders with help and offers on the subject of building and living in the region
- Architects' regulars' table for an exchange on regional building culture
- "Baukulturpreis" (Building Culture Award) for building design and spatial development
- Excursions to special buildings or to regions with exemplary character in terms of building culture



Citizens' Forum KOMET Project

## 6.7 Expansion of the KOMET project (utilisation management of vacancies)

The model project "KOMET – Managing Places Cooperatively in the UNESCO Biosphere Reserve Thuringian Forest", by the Federal Ministry of Education and Research (BMBF), focused on preserving the identity-forming village centres with their building culture while, at the same time, meeting the demand for housing and directing it to the inner areas of the villages, which is ecologically, economically and socially necessary. After successful implementation until 2019, the follow-up project "Future in the countryside – working and living in the Thuringian Slate Mountains" was also launched in the rural municipality of Großbreitenbach.

The KOMET project is to be expanded and the exemplary and innovative instruments transferred to the entire region. With this transfer, it should be possible in particular to find sustainable uses for vacant properties and, as a whole region, to establish sustainable settlement development – oriented towards inner development – on a permanent basis.

### The lead project includes the following sub-projects.

- survey and evaluation of sources of internal development potential and comparison of the housing needs of the next few years, as well as final definition of a joint strategy to achieve these goals.
- Declaration of "Internal before External" (extension of the Gillersdorf Declaration) with regionally defined social, economic and ecological arguments
- Real estate exchange (residential areas and properties) for the marketing of hard-to-fill existing buildings or vacant lots within the town and village centres on an internet platform.
- Expansion of the survey and evaluation of sources of inner development potential and the real estate exchange to include tourism-related vacancies and brownfield sites
- Series of events "Building in the heart of the village" ("Bauen in den Ortsmitte") to raise awareness of the topic of internal development for residents and to provide information for those interested in building and converting.
- Continuation and expansion of the communication network from the KOMET follow-up project of the municipality of Großbreitenbach
- Creation of a new job for "village caretakers" for social tasks



Building in typical slate construction in Frauenwald



## 6.8 Support programme for biosphere reserve municipalities

In 2021, for the first time, the municipalities had access to funding from the TMUEN for investment projects for sustainable development in the biosphere reserve amounting to around € 500,000. Funding was provided for 12 projects on sustainable regional development with a broad spectrum of content ranging from education for sustainable development to nature tourism and nature conservation. This funding was very positively received and evaluated by the stakeholders in the region. The wish was expressed to strengthen, further develop and permanently shape this support in the sense of sustainable regional development. The biosphere reserve's administration function provided technical advice to the municipalities during the preparation of the project outlines or project applications, and it accompanies and supports the implementation of the municipal projects on site until their completion.

In the long term, the experiences should be evaluated by the TMUEN and incorporated into a longer-term funding guideline. In the future, it would be beneficial to allow a longer time frame between the call for projects and the submission deadline, in order to allow for a longer lead time and to give the municipalities more time for targeted implementation. Follow-up funding for projects should also be made possible in order to enable continuation in the sense of sustainability.



*Informationszentrum und Sitz der Verwaltung des UNESCO-Biosphärenreservats Thüringer Wald in Schmiedefeld am Rennsteig*

## 6.9 Municipal Forum Biosphere Reserve

In the course of the discussions with the mayors in autumn 2020, all nine biosphere reserve municipalities confirmed that they are interested in a stronger cooperation with the biosphere reserve's administration function. With the lead project "Municipal Forum", new ways for a stronger inter-municipal exchange as well as for a closer cooperation and networking with the administration of the biosphere reserve are to be explored.

In order to jointly implement the projects of the framework concept, the advisory board suggested several levels of cooperation, ranging from the inter-

communal, cross-project level to project-related working groups and communal action days.

The events should take place regularly and in a fixed rotation. A "biosphere reserve representative" should be recruited from each municipality and participate in the events as a "biosphere ambassador".

A legal framework for the Municipal Forum on Biosphere Reserves is desirable, as especially in the case of the complex lead projects, a targeted decision-making process at the strategic level is required for coordinated implementation at the subject level. In this context, the positive experiences from the tourism budget "NATURE-Experience Biosphere" can be incorporated and it can be examined as to whether the existing special-purpose agreement from the tourism budget can be continued in terms of content in the direction of strengthening the inter-communal cooperation for the joint implementation of the framework concept.



*Presentation of a cheque by Minister Anja Siegesmund for the funding of local authority projects for sustainable regional development in the biosphere reserve (July 2021, Stützerbach).*





*The numerous bogs in the Thuringian Forest act as carbon sinks*

## 6.10 Energy and climate protection concept “Climate-neutral biosphere”

Energy generation from renewable resources is a particular challenge in the UNESCO Biosphere Reserve Thuringian Forest due to the region's high altitude and forest cover. In the cities and municipalities of the biosphere reserve, six biogas plants, six small hydropower plants and more than 1,000 solar plants have been operating as of 2020. The UNESCO Biosphere Reserve Thuringian Forest now wants to set up an energy and climate protection concept “Climate Neutral Biosphere”. Climate neutrality means the balance between the emission of carbon and its absorption from the atmosphere in so-called carbon sinks. With the concept “Climate-neutral biosphere”, new ways are to be found to increasingly use the energy sources sun, water and biomass, so that a sustainable and regional energy supply can be achieved in the biosphere reserve in the future. In addition, the concept is to be dedicated to the topic of energy saving so that energy costs are reduced in the future and the environment and climate are better protected.

### The lead project includes the following building blocks:

- Investigation of the potential for renewable energies in the biosphere reserve
- Investigation of renewable energy supply in industrial plants
- Investigation into the use of waste heat in companies
- Investigation into the thermal utilisation of waste in wood processing

## 6.11 Holistic mobility concept Biosphere reserve

To improve the public transport infrastructure, the biosphere reserve has implemented various measures, activities and further ideas. The primary focus of activities in the biosphere reserve was on linking tourist mobility with bus and rail services. In order to consider the interconnection between public transport, alternative forms of mobility, cycling, pedestrians and private vehicles at all times, a holistic, sustainable mobility concept with a focus on public transport should guide the developments in the field of mobility in the biosphere reserve.

The mobility concept is to combine concrete approaches to mobility from the areas of service design, infrastructure, building and planning law, as well as information and public relations work into an overall strategy for the region.

The mobility concept should consider both public services and leisure traffic. This requires analyses of different areas such as an analysis of mobility relations, a supply- demand analysis, a cost analysis and a potential analysis. Future topics



such as automated public transport will also be considered.

### The lead project includes the following sub-projects:

- Establishment of a mobility manager
- Development of a cycling concept
- Designation of a biosphere reserve cycle route based on existing cycle routes
- Establish, build, develop multi-modal mobility hubs
- Digitalisation of stops
- Car sharing offer via “TeilAuto”
- Set up additional car-sharing benches
- Car park with shuttle service (Suhl/Oberhof) + possibly separate concept for winter
- Public transport operating concept in the Rennsteig region



## 6.12 Reactivation of the railway line Themar - Rennsteig Bahnhof

After the closure of railway lines in the biosphere reserve in the 1990s, the railway line Ilmenau - Rennsteig Bahnhof was made usable again for tourist traffic with the Rennsteig Shuttle after decades of effort. The administration function of the biosphere reserve supported the efforts to revitalise this railway line on weekends and public holidays. In addition, on certain days, in cooperation with the Rennsteigbahn GmbH & Co. KG and the Verein Dampfbahnfreunde mittlerer Rennsteig e. V., steam train rides with historic trains prove to be very popular with guests and locals.

In the long term, the concept of establishing a ring-form railway service in the biosphere reserve is being pursued by the municipalities and Rennsteigbahn GmbH & Co. KG. The next step will be to focus on the revitalisation of the railway line Themar - Schleusingen - Rennsteig Bahnhof. The extension of the Rennsteig Shuttle is intended to connect the southern Thuringia/Upper Franconia area to Rennsteig and improve public transport in the tourist area in the biosphere reserve.

### The lead project includes the following sub-project:

- Switching the delivery of Wiegand glass to the rails to bring the transport of commercial goods back onto the rails to a greater extent



## 6.13 Extension and optimisation of the Rennsteig ticket in the UNESCO Biosphere Reserve Thuringian Forest

Since 2015, overnight guests in several state-recognised recreation and health resorts in the UNESCO biosphere reserve have been able to use their guest card (and the Rennsteig ticket includes this) to travel by bus free of charge and to visit Rennsteig on weekends.

The railway between Ilmenau and Rennsteig station (RennsteigShuttle) can be used on weekends and public holidays. In a number of holiday resorts, the guest card with Rennsteig ticket has automatically been set up to include the Thuringian Forest Card function since 2018. So far, however, the Rennsteig Ticket cannot be offered throughout the biosphere reserve. In the course of extending the Rennsteig Ticket, the city of Suhl and the municipality of Oberhof are to be integrated via municipal contracts, as well as residents from other towns via private individual con-

tracts. As part of the further development of the "Thüringer Wald-Card", the various guest cards in the Thuringian Forest are to be standardised and digitalised. In the future, the guest tickets will also be recorded in the buses and thus also the number of users of the Rennsteig ticket. Public relations work is to be expanded overall. In the course of extending the Rennsteig ticket, the public transport services in the leisure sector are also to be optimised (closing gaps, interchanges, connection of the "last mile").

### The lead project includes the following sub-projects:

- Public transport operating concept in the Rennsteig region
- Study on the optimisation of bus services for guests
- Establishment of bus routes that are important for tourism
- Loading of wheel trailers on buses





## 6.14 Quality hiking region

The certification of the UNESCO Biosphere Reserve Thuringian Forest as a Quality Region for Hiking Germany ("Quality Region Wanderbares Deutschland") is an important step for the region towards sustainable marketing in soft tourism. The region profits many times over from the certification. On the one hand, the quality of the path infrastructure in the biosphere reserve is addressed and sustainably improved. On the other hand, the hiking guest gets an orientation and decision-making aid for his journey to the Thuringian Forest. In addition, the quality label is a competitive advantage for the hiking destination and should be actively used in the marketing of the local hiking tourism offer.

In order to be certified as a "Quality Region Wanderbares Deutschland", certain requirements must be met in the areas of hiking quality and services. As soon as all 43 criteria are met, an application for certification can be submitted to the German Hiking Association (Deutscher Wanderverband). After a positive assessment, the region receives the certificate entitled "Quality Region Wanderbares Deutschland" for a period of three years. After this time, the quality must be checked again by means of random sampling. The coordination, application and implementation cannot be carried out by the association Regionalverbund Thüringer Wald e. V., the state administration function of the biosphere reserve or the individual municipal tourist information offices alone due to their respective responsibilities. An inter-communal tourism organisation form for the biosphere reserve is needed (see key project 6.15) as a prerequisite for the implementation of the key project quality hiking region.

### The lead project includes the following sub-projects:

- Preparation of the certification
- Developing new approaches to visitor management in times of change
- Expansion of the hikers' hut network
- Quality drive for certification



- Marketing by theme locations
- Realisation of a "glass path" as a themed hiking trail
- Information boards at the "Rennsteigwarte"

## 6.15 Formation of an inter-communal tourism organisation for the biosphere reserve

The overlapping of existing tourism organisational structures and the lack of a tourism organisational structure for the biosphere reserve as a link between the localities and the Regionalverbund Thüringer Wald e. V. hinders joint internal and external marketing and coordinated offer and product development. The creation of a tourism organisation structure was previously formulated as a goal in the tourism budget (2013-2015), it is a component of the Thuringian Forest Tourism Concept 2025 and has as yet not been implemented.

The framework conditions for the formation of an inter-communal tourism organisation form for the biosphere reserve must be coordinated and agreed with the districts, towns and municipalities involved, as neither the Regionalverbund Thüringer Wald e.V. nor the biosphere reserve's administration function or the individual tourist information offices can take the lead in realising the above-

mentioned tasks. It requires financial underpinning and a corresponding legal agreement on this. The formation of an inter-communal tourism organisation form is a fundamental prerequisite for the implementation of the lead project 6.14 Quality hiking region, as without this, the criteria of the German Hiking Association cannot be fulfilled.

### The lead project includes the following sub-projects, which are to be implemented through the tourism organisational structure:

- Host regulars' table for networking
- Indoor communication with tourists in the biosphere reserve
- Development of a local travel planner
- Marketing of ranger hikes to specific target groups • Digital tourist daily newspaper





a framework is to be created, which serves as a basis for all actors in the educational landscape. Within the framework of the development process, actors are to be networked more closely and cooperation with education actors is to be expanded. Basically, existing educational actors and offers as well as needs are examined. Based on the analysis, a mission statement of the education actors is to be developed and ESD quality standards and guidelines for the education actors and offers are to be defined. The concept serves as a basis for further work to implement measures in the coming years.

### The lead project includes the following sub-projects:

- Thematic expansion of educational offers, e.g. regional products or cultural-historical interest vs. sustainability
- Biosphere reserve for children as a region to touch & participate in
- Gates to the biosphere reserve as educational sites, where regional topics are presented on the basis of display boards or multimedia objects.
- Expand the ESD coordination office in the administration of the biosphere reserve
- Create uniform quality characteristics of the educational actors and offers.
- Communicate forest restructuring and climate to locals and guests
- Use of digital communication media, e.g. augmented reality route as a nature trail with visualisations on regionally related topics.

## 6.16 Nature experience highlight

The UNESCO Biosphere Reserve Thuringian Forest delivers an impressive performance with its gentle, nature-oriented tourism. With the tourism budget (2013-2015), numerous nature experience offers were created and the similarities and differences to hiking, cycling and skiing were worked out. The focus is on consciously experiencing nature. In addition to the hikes with nature guides and rangers, for the first time, bookable nature experience offers were developed and offered by hotels.

In addition to the large number of existing and well-developed nature experience offers, one attraction is missing that should function as a highlight for the entire biosphere reserve. Within the scope of participation in the framework concept, no specific idea for the nature experience highlight has been found so far, so that the first step of the project implementation is to brainstorm. For this purpose, a combination of an ideas workshop with municipal representatives, tourism stakeholders of the region and nature conservation associations, as well as an ideas competition for citizens could be conducted in order to ensure broad participation.

### The lead project includes the following sub-project:

- Biosphere reserve circular trail, which is a multi-day circular trail that connects the partner businesses, is easily accessible by public transport and integrates the highlight of experiencing nature in its routing on existing hiking trails (goal: TOP-A trail according to Thuringian hiking trail concept 2025)

## 6.17 Creation of an ESD education concept for the educational landscape of the UNESCO Biosphere Reserve Thuringian Forest

The educational landscape is characterised by a diverse range of educational offers from the biosphere reserve's administration function (information centre in Schmiedefeld a. R. and ranger tours), the certified nature and landscape guides and other educational stakeholders from the region. The cooperation of all stakeholders as well as the networking of educational activities is an important prerequisite to fulfil the educational mandate of the biosphere reserve.

With the creation of an educational concept taking into account the criteria of education for sustainable development,







*Rangers on a winter holiday in the Thuringian Forest Biosphere Reserve*

## 6.18 Education package for ESD stakeholders

In the UNESCO Biosphere Reserve Thuringian Forest, forms of cooperation already exist with schools and day-care centres, as well as other educational stakeholders. There are already a number of handouts for teachers and partners involved in ESD education. However, the educational offer of the biosphere reserve's administration function is not sufficiently known. In addition, there is a need for closer cooperation to teach educational topics.

The UNESCO Biosphere Reserve Thuringian Forest should further expand its curriculum-oriented educational offers and opportunities. Therefore, it is necessary to initiate an educational package that contains comprehensive material on curriculum-oriented educational offers for children, young people and adults. The aim is to teach regional topics taking into account the school curricula and their educational objectives.

The result is a win-win situation: The educational goals of the curriculum are achieved and the learners get to learn from (and with) regional examples. The use of the educational offers in the biosphere reserve can thus be increased and the cooperation with educational institutions can be expanded.

## The lead project includes the following sub-projects::

- An educational offer ("Bildungskoffer") with clear and comprehensible teaching and learning materials on topics relevant to the biosphere reserve.
- Develop educational and teaching materials together with educational stakeholders and make them available to teachers.
- Further training for teachers on educational work in the biosphere reserve
- Produce evaluation materials for educational work, which will improve cooperation with educational institutions in the long term.



*World Network of Biosphere Reserves, on view at the Information Centre*



## 7 | Projects, pilot projects, research projects

PROJECTS	PILOT PROJECTS	RESEARCH PROJECTS
Economy, trade, crafts and commerce		
Integration of job exchange on the biosphere reserve website	Co-working spaces	
Support for the foundation of a "Handwerkgymnasium" (a craftsmen's grammar school)		
Mountain meadows and agriculture		
Meadow fund – alternative financing options for small mountain meadows	Municipal mountain meadow management (areas valuable for nature conservation that are not managed or managed by farmers).	Biodiversity monitoring on permanent observation areas (e.g. "Schwenden")
Regular users' table (agriculture/forestry, hunting, fishing)	Biodiversity through balanced nutrient balance (withdrawal-oriented fertilisation)	
Establishing value chains for the marketing of sheep's wool		
Forest, forestry and hunting		
Regular users' table (agriculture/forestry, hunting, fishing)	Processing and refining of wood from the biosphere reserve using a seal of quality	Monitoring forest condition
Securing "waste wood islands" ("Altholz-inseln") for further implementation of the habitat tree concept		Long-term monitoring of the stability of dying spruce in core areas
Utilisation concept for the revival of historic ponds for rafting (Flößerei) and fishing		Research on tree species of different origins
New ways for the marketing of game meat		Monitoring lynx, wildcat, wolf
Mountain streams, bogs and watermanagement		
Utilisation concept for the revival of historic ponds for rafting (Flößerei) and fishing		Resource-oriented wastewater and waste systems (research proposal BU Weimar, City of Suhl & BRTW)
Cultural-historical structures on water bodies – site catalogue and public relations work		„Trübes Wasser? Klare Bergbäche! – a model research project on sediments and mountain streams in the UNESCO Biosphere Reserve Thuringian Forest of the University of Applied Sciences in Erfurt – FH Erfurt“
Utilisation concept for water intake structures		Investigation of sediments in the course of the planned rehabilitation of the Schönbrunn Dam
Land pool for compensation and replacement measures on watercourses		



PROJECTS	PILOT PROJECTS	RESEARCH PROJECTS
Energy and climate protection		
2,000 Watt Days		Study on the use of wind energy and geothermal energy (micro wind turbines) Monitoring fish fauna at micro hydropower plants
Tourism, recreation and nature experience		
Gates to the biosphere reserve (welcome and information sites)	Unusual overnight accommodation in the countryside	
Year-round concept for tourism in the biosphere reserve		
Development of offers – Mountain meadow blossom, forest bathing, healing forest, health tourism		
Population, demography and municipal development		
Blooming Schmiedefeld	Wooden house pilot project	Population survey on the attractiveness of the town centres
Attractive design of the village entrances	24-hours- village-shop	
Baustoffhof for regional resources “village caretakers”	Village garden with regional vegetables	
Mobility and transport		
Network of e-bike charging stations	Mobility Guarantee for Rural Areas – Model Project of the Free State of Thuringia	Autonomous driving
	Biosphere station	
	Digitalisation, design and development of mobility nodes (in municipalities and in the forest)	
Culture and regional identity		
Guide for sustainable events	Lebenswelt-Verbund-Museum	
Intangible Cultural Heritage Catalogue	Supporting young regional artists Cultural scene	
Modernisation of the Steinbach-Langenbach Nature Theatre		
Documentation of historical-cultural landscape elements		
Education for Sustainable Development (ESD)		
Consolidation of cooperation in the Round Table (“Runder Tisch”) network	First biosphere school	“Trübes Wasser? Klare Bergbäche! – A model research project on sediments and mountain streams in the UNESCO Biosphere Reserve Thuringian Forest”.
Training and further education of certified nature and landscape guides	Visitor App for the Thuringian Climate Trail “Geraberg”	
	Lebenswelt-Verbund-Museum	



## 8 | Competition

In order to reach young people, school classes, associations and active citizens in the process of developing the framework concept, a competition was launched at the start of the development process under the title of "Sustainable. Good. Great ideas for our UNESCO Biosphere Reserve Thuringian Forest".

A total of 10 projects and 21 ideas were submitted that show how living and working in the biosphere reserve can be made sustainable in the future.

Five winners were selected from each of the 31 project and idea submissions. The advisory board acted as a jury. The 5 best projects received a grant of € 1,000 for implementation.

### The 5 best projects

- I ImpULS-Schule Schmiedefeld a. R. with the project "Naturparcours-Eisenberg".
- Woodcamp e. V. Schullandheim Heubach with the project "Was geht im Wald?" as a youth education project on sustainability in forestry
- BLOWALD e. V. with the project "Naturgewissen 2.0 – Workshops Umwelt – Ernährung – altes Handwerk"
- Schullandheim Geraberg e. V. with the project "Nachhaltiger Bau und Nutzung von Hochbeeten im Schullandheim".
- Handwerkskammer Südthüringen (Chamber of Crafts) with the project "Streuobstwiesenprojekt im BTZ Rohr, Bildung für Nachhaltigkeit erlebbar gemacht".



### The 5 best ideas

erhielten ein Preisgeld von jeweils 200 €:

- "Erlebte Biodiversität/Anlage von Lebensinseln (Biodiversitäts-Lehrpfad)"
- "Dorf-Garten"
- "Thüringer Glasweg"
- "Blühendes Schmiedefeld"
- "BUTZE! Nachtlager in der Natur"

The competition was supported by Rennsteiglauf Sportmanagement und Touristik GmbH, the Sparkasse Arnstadt-Ilmenau and Friends ("Förderverein") of the Biosphere Reserve.







## 9 | Outlook

This framework concept contains the guiding principles and goals as well as the key projects, projects, pilot projects and research projects agreed to implement these goals for the period from 2021 to 2030.

The framework concept forms the basis for the work of the biosphere reserve's administration function. The framework concept is a recommendation for action for the municipalities, land users, businesses, associations and organisations, institutions and bodies, as well as all actors and citizens in the biosphere reserve. It is the basis for further joint work, strengthening cooperation and expanding networks. The advisory board appointed in January 2020 will continue to advise and support the administration of the biosphere reserve and the region.

As a regionally coordinated development strategy for sustainability, it offers the opportunity to acquire funding for the implementation for the entire biosphere reserve or the specific projects.

The implementation of the framework concept also includes the integration of the guiding principles, goals and projects into current and future planning and concepts at the state, district and municipal levels. In addition, the results will be incorporated into the updating of the development programme for the Thuringian Forest Nature Park (Naturpark Thüringer Wald) (2021-2030).

This brochure and the three-volume long version of the framework concept for the UNESCO Biosphere Reserve Thuringian Forest (2021-2030) can be downloaded from the website of the Biosphere Reserve Thuringian Forest ([www.biosphaerenreservat-thueringerwald.de](http://www.biosphaerenreservat-thueringerwald.de)).



## 10 | Legal notice

Client:	Freistaat Thüringen – Thüringer Ministerium für Umwelt, Energie und Naturschutz vertreten durch UNESCO-Biosphärenreservat Thüringer Wald Verwaltung OT Schmiedefeld am Rstg., Brunnenstraße 1 98528 Suhl Tel: 0361 573924610 Fax: 0361 573924629 E-Mail: <a href="mailto:poststelle.thueringerwald@nnl.thueringen.de">poststelle.thueringerwald@nnl.thueringen.de</a> <a href="http://www.biosphaerenreservat-thueringerwald.de">www.biosphaerenreservat-thueringerwald.de</a>
Contractor:	IPU GmbH Breite Gasse 4–5 99084 Erfurt
Editing:	Uta Röhl, Dipl.-Ing., MBA Regional Management Maria Mönig, M.Sc. Urbanistik Liesa Hertwig, B.A. Architecture
Translation:	Kern AG, Leipzig
Layout & typesetting:	Werbeagentur Kleine Arche GmbH
Printing:	Mehgro Werbung GmbH , Urbach Printed on 100% Blue Angel recycled paper
Version as of:	12/2021
Photo credits:	Administration Archive of the UNESCO Biosphere Reserve Thuringian Forest: Cover, pages 2, 5, 8–15, 17 top, 18 top, 19, 20, 23, 26 top, 29, 30 top, 32 top, 33, 34, 35 middle, 36 bottom, 38 top, 39 above, 45 IPU GmbH: Page 37 Christopher Schmid: Page 7, 16, 18 bottom, 25, 28 bottom, 31 bottom, 35 top Michael Reichel: Page 17 below, 21, 27, 32 below, 38 - 39 below, 42, 43 Tourist-Information Schmiedefeld a.R.: Page 22 Hans-Dieter Budde: Page 24 above and below, 36 above Naturtheater Steinbach-Langenbach: Page 26 below Konstantin Schellenberger: Page 28 top
Suggested citation:	UNESCO Biosphere Reserve Thuringian Forest (2021): Framework Concept UNESCO Biosphere Reserve Thuringian Forest (2021 – 2030). Abstracts. Online at: <a href="http://www.biosphaerenreservat-thueringerwald.de">www.biosphaerenreservat-thueringerwald.de</a>







