

June 13th, 2024 June 14th - 16th, 2024

#### INTERPRAEVENT 2024 - Vienna, Austria

**Natural hazards** in a changing climate How to manage risks under global warming

# **FIELD TRIP PROGRAMME**

Federal Ministry Republic of Austria Agriculture, Forestry, Regions and Water Management 💳 Wildbach- und Lawinenverbauung Forsttechnischer Dienst

umweltbundesamt<sup>®</sup>

# **INTRODUCTION**

Global warming and its massive impact on natural disasters is one of the main challenges of our era. Traditional concepts of hazard prevention or disaster management are outdated since climate change requires sustainable adaptation processes for the protective system.

The international conference INTERPRAEVENT 2024 conference is dedicated to the topic "Natural hazards in a changing climate – How to manage risks under global warming?". The conference connects science and practice and provides an important platform for exchange on experiences, latest developments and scientific innovations. Decision-makers will gain insights into essential adaptation strategies in natural hazard and risk management.

Practical experience also plays an important role at the conference. During the last day of INTERPRAEVENT 2024 the field trips take place which offer the chance for an intensive exchange with practitioners and on-site visits. Eleven one-day field trips will take place on Thursday 13 June 2024 in particularly attractive and fascinating Austrian regions in and around Vienna. The field trips will focus on various topics relating to hazard and risk management in practice and cover all of the six thematic sessions of the conference. This field trip guide will provide you detailed information of the field trips.

From Friday 14 to Sunday 16 June 2024, a three-day field trip (Post-Conference Excursion) will take place in the west of Austria, where natural hazard management and the effects of climate change in the Alpine region will be addressed. The main topics are the influence of climate change and its subsequent processes (e.g. glacier retreat, thawing of the perma-frost, mass movements), the sediment transport, the protective forests and climate-related extreme events and their consequences. Among other places, the Forest Campus Traunkirchen, the Hallstatt World Heritage region, the Hochkönig region, the glacier Kitzsteinhorn and the Sonnblick Observatory will be visited.

#### **REGISTRATION:**

Registration is only possible online via the conference registration page at the following link: https:// interpraevent2024.at/participation/registration.

The terms and conditions are available on the conference website or during the registration process (in the "Terms and Conditions").

The meeting points and further information (for the field trips) will be announced 2 weeks before the event to the e-mail address provided during the registration.

#### FIELD-TRIPS JUNE 13TH 2024

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#### POST CONFERENCE EXCURSION JUNE 14TH - 16TH 2024



# URBAN FLOOD RISK MANAGEMENT VIENNA, CITY OF SCIENCE

#### TIME: Thursday, 13.6.2024, 8:30 – 18:00

MEETING POINT: BOKU Wasserbaulabor, Am Brigittenauer Sporn 3,

1200 Wien

PRICE: 80 € (incl. VAT) Included: Bus transfer, Boat tour, Lunch

Mc GeoSphere Austria



### NATURAL HAZARDS:

Floods, Climatic Risks

# CONFERENCE TOPICS:

- Climate Change: Drivers, Triggers and Consequences
- Risk Governance, Policies and Resilience
- Structural and Non-Structural Mitigation Measures

From the beginning of settlement along waterways until today, people have been affected by natural disasters. Due to the growing population density in cities, it is particularly important in times of climate change to predict extreme weather and their potential effect. The excursion will give insights into weather observation and forecasting, research on bodies of water and municipal flood protection.

A highlight is the guided tour of the Engenieering Laboratory (River Lab) of the University of Natural Resources and Life Sciences (BOKU). Here you will gain insights into the research of this globally unique scientific institution. At the River Lab research is carried out at as scale of 1:1 on flood control, ecology hydropower, navigation and all processes that also take place in rivers under the influence of climate change. The excursion will offer you the opportunity to discover this extraordinary institution more closely.

#### During your visit to the headquarter of the GeoSphere Austria, Austrian's Federal Institute for Geology, Geophysics, Climatology and Meteorology, you will take a look behind the scenes of weather forecasting and climate research with a special focus on extreme weather events. What challenges do meteorologists face in such situations? Moreover, how do we make sure that people are well-informed in case of extreme weather using impact-based warnings? The visit will be completed by a tour of the meteorological observation station and an exclusive behind-the-scenes look in the Operations Centre, where meteorologists monitor the weather around the clock, and where forecasts and warnings are produced.

Finally, as an applied part of research, Vienna's Danube flood protection will be presented in the course of this excursion. It is unique in this form and combines the protection of Vienna from flooding with its second function as the city's largest leisure and recreational area.



# **USEFUL INFORMATION:**

Suitable shoes Life jackets are provided on site and must be worn! The field trip will be held exclusivley in English.



ORGANISATION

Stadt Wiener Gewäss



#### TIME: Thursday, 13.6.2024, 8:30 – 17:00

### MEETING POINT:

In front of the Vienna Central Train Station PRICE: 80 € (incl. VAT) Included: Ticket for public transport, Lunch

**EUSALP** EU STRATEGY FOR THE ALPINE REGION



### NATURAL HAZARDS:

Floods

# CONFERENCE TOPICS:

- Hazard and Risk Assessment
- Structural and Non-Structural Mitigation Measure

Nature-based solutions (NbS) are gaining momentum in EU policies for their potential to address multiple social-ecological aspects simultaneously, but definitions, governance processes, and areas of application vary depending on local/regional contexts and countries. This field trip will provide participants an overview of the role of NbS as urban flood risk mitigation measures and their effectiveness for disaster risk reduction and climate change adaptation. At the beginning of the field trip the stream Liesingbach (23. District of Vienna) will be visited, where the construction measures and impact will be presented. The field trip will be organised by experts from the University of Natural Resources and Applied Life Sciences Vienna. Afterwards, a joint workshop will take place to discuss opportunities and challenges of NbS in the field of risk management and climate change adaptation.



© Hans Peter Rauch

# **USEFUL INFORMATION:**

fully accessible

The field trip will be held exclusivley in English.





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# FLOOD RETENTION AND EARTHQUAKE MONITORING IN THE VIENNA WOODS

#### TIME: Thursday,

13.6.2024, 8:15 – 18:00

#### MEETING POINT: Vienna City Center (exact meeting point to be announced)

PRICE: 120 € (incl. VAT) Included: Bus transfer, Lunch



#### NATURAL HAZARDS:

Floods, Earth-quakes

# CONFERENCE TOPICS:

From Observations and Experiments to Modelling and Simulations

TRIESTING

WASSERVERBAND

- Hazard and Risk Assessment
- Structural and Non-Structural Mitigation Measures

The excursion will take the participants to the southern Vienna Woods. Two flood retention basins provide insights into a comprehensive, regional protection concept. The Conrad Observatory stands for international research in the field of geophysics.

From 2012 to 2019, the Austrian Service for Torrent and Avalanche Control has realized extensive flood protection measures at the Further torrent. These measures serve as a flood protection for the municipalities of Furth and Weissenbach/Triesting. The two retention basins, are also an integral part of the region-wide flood protection concept of the Triesting Water Association.

The flood retention basin in Pottenstein marks the downstream structure of this comprehensive flood protection. It was completed in 2023 and, with a retention volume of more than 750,000 m<sup>3</sup>, it protects the city of Berndorf, its 9,000 inhabitants

### **USEFUL INFORMATION:**

suitable shoes warm clothing (overjacket for tunnel in Conrad Observatory) The field trip will be held exclusivley in English.

and the culturally and historically valuable industrial monuments of the famous Krupp town.

50 kilometres southwest of Vienna, on the Trafelberg in the Gutenstein Alps, Geosphere Austria operates the Conrad Observatory at an altitude of more than 1,000 meters above sea level. The institution was named after the Austrian geophysicist Victor Conrad (1876 - 1962). For 21 years, unique geophysical research has been conducted there.

The location, far away from any external interference, offers ideal conditions for earth science research. The entire facility consists of a tunnel system with boreholes, which are up to 200 meters deep and various measuring pedestals. A constant temperature of 7 °C in the tunnels provides constant conditions throughout the year. The maintenance of ideal measurement conditions is monitored by numerous sensors that detect any changes, even in the surroundings of the observatory.

© GeoSphere Austria



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TIME: Thursday, 13.6.2024. 8:15 - 18:00

#### MEETING POINT:

Vienna City Center (exact meeting point to be announced) PRICE: 120 € (incl. VAT) Included: Bus transfer, On-site visits, Guided paddling tour with raft boats, Lunch



#### NATURAL HAZARDS:

Floods, Climate Risk (Heat, Drought)

### **CONFERENCE TOPICS:**

- Climate Change: Drivers, Triggers and Consequences
- Hazard and Risk Assessment
- Structural and Non-Structural Mitigation Measures

#### ORGANISATION:





The excursion takes you to the "Donau-Auen" National Park and deals with nature space management in the natural flood plain of the riparian forests along the Danube. A special attraction is navigating the banks of the Danube in a raft boat.

In the Petronell-Carnuntum area, the national park administration was able to acquire further areas in 2016 and integrate them into the national park management. The riparian forests there were used for forestry until their integration into the national park. The task of the national park administration has been and is to convert these forest stands into species-rich, site-adapted natural forests and to leave these forests to develop naturally in the sense of process protection. This will promote biodiversity, both in the faunistic and floristic sense, and increase resilience to disturbances. During this terrestrial field trip, the forest conversion measures and other measures improving hydrological conditions will be presented and discussed.

The second part of the excursion serves to present a large renaturation project on the Danube. In the Stopfenreuth area, a side arm system was reconnected to the river by removing regulatory structures such as bank protections and transverse structures. The significantly improved lateral connectivity between the river and the side arms leads to a strong improvement of typical and natural river morphological processes, such as relocation of gravel, formation of shallow and steep banks, formation of pioneer soils and ruderal sites, and a diverse mosaic of different habitats with a high species diversity. In addition to these positive ecological effects, the renaturation of the once regulated river sections improves flood retention and attenuation of flood peaks.

The measures are visited on site by raft boat and one can get a very good impression of Europe's largest river renaturation projects.







© Nationalpark Donau--

# USEFUL INFORMATION:

weather-appropriate clothing (no umbrella, suitable shoes, headgear), paddling by excursion participants Life jackets are provided on site, must be worn!

The field trip will be held exclusivley in English.



# **PROTECTION AGAINST NATURAL HAZARDS** WITHIN THE WACHAU WORLD HERITAGE **REGION**

#### TIME: Thursday, 13.6.2024.

8:15 - 18:00

# **MEETING POINT:** Vienna City Center (exact meeting point to be announced)

PRICE: 100 € (incl. VAT) Included: Bus transfer. On-site visits. Lunch



### NATURAL HAZARDS:

Floods, Rockfall

# **CONFERENCE TOPICS:**

- Risk Governance, Policies and Resilience
- Hazard and Risk Assessment
- Structural and Non-Structural Mitigation Measures

This excursion offers a practical insight into the implementation of technical protective structures in the Wachau World Heritage region (Lower Austria). Particular attention was paid on the integration of the protective measures into the fantastic cultural landscape of the Wachau valley with its famous vineyards. In addition to the flood protection along the Danube, this excursion also includes technical rock fall protection work.

Floods are natural events that are part of the natural water cycle. However, flood protection can prevent flood waves from becoming catastrophes. For the population, the latent risk of flooding on the Danube represents a massive impairment in the guality of life that threatens their existence. In the breakthrough valley of the Wachau, old settlements, viticulture and transport routes such as roads, rails and Danube shipping share space in a very narrow valley floor. In the past, flood events (e.g. 2002 and 2012) have repeatedly led to flooding in many Wachau communities and caused extensive damage.

To protect against rock fall, flexible barriers were dimensioned and installed in accordance with the latest technical standards in the municipality of Schönbühel-Aggsbach. In the municipality of Rossatz-Arnsdorf, a bedload retention barrier made of reinforced concrete, a diversion of around 650 m into the receiving water and a retention basin were built in the Rührsdorf district to protect against flooding from a torrent. The technical flood protection in the Rossatzbach district with protection against a hundred-year flood of the Danube is currently being built and includes, among other things, stationary barriers, mobile flood protection elements, statically effective subsurface sealing and hinterland drainage. In the event of a flood, the mobile elements have to be set up manually according to the flood forecast.







### **USEFUL INFORMATION:**

weather-appropriate clothing and suitable shoes Safety equipment will be provided if necessary and must be worn accordingly! The field trip will be held exclusivley in English.

# **ORGANISATION:**



TRUMER





#### TIME: Thursday,

13.6.2024, 8:15 – 18:00

#### MEETING POINT: Vienna City Center (exact meeting point to be announced)

PRICE: 100 € (incl. VAT) Included: Bus transfer, On-site visits, Lunch



#### NATURAL HAZARDS:

Landslides

# **CONFERENCE TOPICS:**

- From Observations and Experiments to Modelling and Simulations
- Hazard and Risk Assessment
- Structural and Non-Structural Mitigation Measures

Landslides are among the most frequently occurring natural hazards in Lower Austria. In order to quantify dynamics and changes, a long-term monitoring system comprising spatiotemporal high-resolution point source and areal surface and subsurface data is required. The excursion will lead to the locations of two landslide observatories in Lower Austria operated by the ENGAGE – Geomorphological Systems and Risk Research working group from the University of Vienna as the Core Facility "eSurflab" (noeslide.at). At the sites various landslide aspects in Lower Austria will be discussed, such as dispositioning, triggering and movement controlling factors, different landslide types, spatial distribution



### **USEFUL INFORMATION:**

weather-appropriate clothing, suitable shoes

The field trip will be held exclusivley in English.

and occurrence, historic events, impact on planning measures and human impacts. Moreover, the excursion aims to show the manifold field-monitoring tools which are currently installed, including sensors to obtain surface and subsurface information. In the wake of the expected increase of extreme events, it is planned to discuss current and future challenges with important stakeholders from various levels (local, regional) and different experts from specialized institutions, e.g. the Geological Survey and the Forest Engineering Service in Torrent and Avalanche Control. Furthermore, the visit of selected adaptation structures is planned during the field trip to see how respective challenges are currently addressed.



#### ORGANISATION:



# **DEMONSTRATION OF A "NATURAL HAZARD AND CLIMATE CHANGE CHECK FOR MUNICIPALITIES"**

TIME: Thursday, 13.6.2024. 8:15 - 18:00

#### MEETING POINT: Vienna Central Train Station

PRICE: 100 € (incl. VAT) Included: Railtrip with the Austrian Railways and Mariazeller Bahn, Lunch



#### NATURAL HAZARDS:

Climate related risks, Floods

### **CONFERENCE TOPICS:**

- Risk Governance, Policies and Resilience
- Hazard and Risk Assessment
- Structural and Non-Structural Mitigation Measures

In the municipality of Rabenstein/Pielach, a "Precautionary natural hazard and climate change check for municipalities" will be demonstrated. The precautionary check method was developed in Austria based on the model of the DWA flood audit of the German Association for Water, Wastewater and Waste and represents a successful risk prevention concept at the municipal level.

Austrian municipalities are, to some extent, threatened by natural hazard and climate risk. Floods, landslides, rock fall, but also heat, storms, snow loads and invasive species affect the livelihoods. If decision-makers at the municipal level, such as the mayor, the head of the municipal office, the head of the building department or the fire brigade commander, are aware of the threats, and if further precautionary measures are taken in addition to technical protective structures, damage events can be reduced or avoided and human lives can be saved. In the course of the demonstration of the precautionary check, we will show the methodology and setting of the audit method. The focus is on the facilitated discussion between the municipality actors led by two auditors, who identify relevant natural hazards by means of self-reflection and self-assessment, assess further climate-related changes, some of them based on scientific data, and identify any potential need for action in the municipality with the support of the auditors. After the demonstration, the participants can ask questions regarding the precautionary check, share feedback or suggestions and discuss possible applications in other countries. The audit will be in German with English translation.

The excursion concludes with a visit to the "close to nature" regulation of the torrent Loitzenbach in the Rabenstein area: the entire lower course of the torrent was made flood-proof. This project was not only characterized by the protection of the population and safety, but also by the improvement of the water ecology in close cooperation with the fishery.



# **USEFUL INFORMATION:**

suitable shoes

The field trip will take place in German and a translation will be offered.

#### ORGANISATION:

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# **RESILIENCE AND PREVENTION IN THE SPRING PROTECTION FORESTS OF THE CITY OF VIENNA**

TIME: Thursday, 13.6.2024. 8:15 - 18:00

### **MEETING POINT:**

Vienna City Center (exact meeting point to be announced)

PRICE: 100 € (incl. VAT) Included: Bus transfer, visit of the Kaiserbrunn Water Pipe Museum, Lunch



#### NATURAL HAZARDS:

Climate related disturbances in Forests. Forest fires

# **CONFERENCE TOPICS:**

- Risk Governance, Policies and Resilience
- Structural and Non-Structural Mitigation Measures
- **Emergency Management and Recovery**

The city of Vienna's spring protection forests in the Schneeberg-Rax region in Lower Austria ensure the quality and the quantity of Vienna's drinking water. Climate change, historical spruce monocultures and forest fires are major challenges for the tending and management of these forests. The aim is to create species-rich, well-structured mixed forests made of site-appropriate, native tree species, which, if possible, arise from natural regeneration. Such forests have a high level of resilience against various influences and hazards.

Since the 1990s, forestry and hunting measures have consistently promoted the natural regeneration of European beech and mixed tree species and thus improved diversity and resilience in the former spruce forests on the Gahnsplateau that are not siteadapted and are susceptible to bark beetles.

In the forest district Thalhof, which is largely exposed to the south and has limestone soils, both increasing drought and the risk of forest fires are major challenges. We will visit the large area burnt by the forest fire of 2021 and present our experiments and findings on establishing new vegetation and on forest fire prevention in such extreme locations.

Finally, a guided tour of the Kaiserbrunn Water Pipe Museum (one of the springs of Vienna's Aqueduct) is planned.







### **ORGANISATION:**



**USEFUL INFORMATION:** The field trip will be held exclusivley in English.

# **PROTECTION AGAINST NATURAL HAZARDS ON** THE HISTORIC SEMMERING RAILWAY (OLDEST MOUNTAIN RAILWAY IN EUROPE)

#### TIME: Thursday,

13.6.2024. 8:15 - 18:00

# **MEETING POINT:** Vienna City Center (exact meeting point to be announced)

PRICE: 100 € (incl. VAT) Included: Bus transfer, Lunch



#### NATURAL HAZARDS:

Rockfall, Floods

### **CONFERENCE TOPICS:**

- Risk Governance, Policies and Resilience
- Hazard and Risk Assessment
- Structural and Non-Structural Mitigation Measures

Learn first-hand the importance of effective natural hazard management for modern rail infrastructure. With this field-trip, the Austrian Federal Railways (ÖBB) as operator of the Semmering Railway provides insights into natural hazard management along this railway line. It was opened in 1854 and is thus the oldest standard-gauge mountain railway in Europe. It has been a UNESCO World Heritage Site since 1998.

The Semmering Railway overcomes a difference in altitude of 469 m over 42 km and reaches a summit level of 898 m. In the process, it crosses steep slopes and rocky precipices through 14 tunnels, bridges deeply carved side valleys with 16 viaducts and provides impressive views of the landscape of the eastern foothills of the Alps. The field-trip points



© C.Stadler/Bwag



put a special focus on the management of technical as well as organizational protection measures and protection areas and gives an insight into the challenges that arise due to the increasingly emerging climate change.

Currently, the 27 km long Semmering base tunnel is being built in parallel to relieve the historical route, which will significantly reduce travel time. The railway station of the city of Mürzzuschlag is located at the western end of this tunnel section. Here, the extensive flood protection measures that have become necessary for the station extension will be visited. They were implemented in cooperation with the city of Mürzzuschlag, under the leadership of the Austrian Service for Torrent and Avalanche Control.



© ÖBB/Ebner

© ÖBB/Ebne

# **USEFUL INFORMATION:**

weather-appropriate clothing, suitable shoes Safety equipment will be provided if necessary and must be worn accordingly! The field trip will be held exclusivley in English.

### **ORGANISATION:**



# AVALANCHE CONTROL IN THE REGION VORDERNBERG/PRÄBICHL (STYRIA)

#### TIME: Thursday,

13.6.2024, 7:45 – 18:00

#### MEETING POINT:

Vienna City Center (exact meeting point to be announced) PRICE: 120 € (incl. VAT) Included: Bus transfer, Guided alpine hike, Lunch



#### NATURAL HAZARDS:

Avalanches, Rockfall, Protective Forest

### **CONFERENCE TOPICS:**

- Hazard and Risk Assessment
- Structural and Non-Structural Mitigation Measures
- Emergency Management and Recovery

The field trip takes you to the technical avalanche protection measures on the Vordernberger Mauern and on the Präbichl Pass. Due to their historical importance for the iron industry, the pass crossing and the market town are centuries-old settlement areas in an area of the Eisenerz Alps that is massively threatened by alpine natural hazards.

Part of the excursion leads into alpine terrain and requires mountain equipment, good fitness and sure-footedness! The first stop leads in about 1 hour of alpine hiking to the construction site hut of the Kruckengraben and the Fürstenplan avalanche. From here you have a very good overview of the project area.

To protect Vordernberg against avalanches and rockfall, a project has been developed by the Austrian Service for Torrent and Avalanche Control. The project goals are to sustainably maintain the protective functions of the forest, as well as to ensure avalanche and erosion control, by means of







# **USEFUL INFORMATION:**

weather-appropriate clothing, suitable shoes Possibly a second shirt to change, Alpine trail: sure-footedness required! The field trip will be held exclusivley in English.

a combination of numerous forestry and technical measures. Systematic defence structures with wire rope nets, avalanche support structures in steel and wood, and supplementary rockfall nets have been built. An essential aspect of forestry measures in the "protective forest declared by official notice Vordernberg" is the dynamic site-specific adaptation of tree species selection and stand structure development. Since 1998, various silvicultural measures have been carried out. These measures are supported by technical gliding snow protection measures and basic development of the protective forest with forest roads.

The second excursion stop leads to the pass summit of Präbichl mountain. The pass crossing is intensively used for tourism both in summer and in winter. Here, the conflict between touristic and economic interests, transport routes, land use planning and alpine natural hazards is intensifying. This is exemplified by avalanche control for the Präbichl ski area. The various solutions will be presented and discussed.

# ORGANISATION

 Wildbach- und Lawinenverbauung Forsttechnischer Dienst



# DISASTER MANAGEMENT IN PALTEN VALLEY (STYRIA)

#### TIME: Thursday, 13.6.2024, 7:45 – 19:00

### MEETING POINT:

Vienna City Center (exact meeting point to be announced) PRICE: 100 € (incl. VAT) Included: Bus, Entrance of Admont Monastery, Lunch



#### NATURAL HAZARDS:

Floods, Debris flow

# CONFERENCE TOPICS:

- From Observations and Experiments to Modelling and Simulations
- Structural and Non-Structural Mitigation Measures
- Emergency Management and Recovery

In 2012, a phase of intense rainfall in the Paltental led to repeated flood events and a debris flow in the town of St. Lorenzen (municipality of Trieben). The excursion leads to various protection projects that were implemented as a result of the Torrent and Avalanche Control after the catastrophic events.

At the Köberl torrent in Gaishorn, a project with checkdams to stabilize the slopes as well as a sediment retention basin that is currently under construction will be visited.

The debris flow that occurred in St. Lorenzen near Trieben in June 2012 destroyed several buildings, some of them were not rebuilt. The extensive event documentation represents an essential part of the excursion. In St. Lorenzen, a protection project was planned and implemented within a month after the debris flow. The protection concept includes a chain of filter barriers with a coarse rake dimensioned for debris pressure and a dosing barrier.

The Lichtmess torrent flows in a very old channel squeezed between buildings through the more than 1.000-year-old town center of Admont. In order to dampen the flood wave, a flood retention basin was built between the limestone mountains in the high valley of the Kaiserau.

At the end of the excursion, you can visit the worldfamous library of the Admont Benedictine Monastery. The Admont Abbey Library is one of the great works of art of the European late baroque period. In it, various art genres (architecture, frescoes, sculptures, writings and printed works) have merged into a single unit. It represents a store of knowledge that spans centuries.

![](_page_12_Picture_19.jpeg)

![](_page_12_Picture_20.jpeg)

#### **USEFUL INFORMATION:** weather-appropriate clothing and suitable shoes

#### The field trip will be held exclusivley in English.

#### **ORGANISATION:**

 Wildbach- und Lawinenverbauung Forsttechnischer Dienst

# POST CONFERENCE EXCURSION "NATURAL HAZARDS IN THE ALPINE REGION UNDER THE INFLUENCE OF CLIMATE CHANGE"

#### TIME: Friday - Sunday, 14-16.06.2024 start 8:00

#### **MEETING POINT:**

Vienna City Center (exact meeting point to be announced) PRICE: 650 € (incl. VAT) Included: Bus transfer, Hotel, Lunch, Cable car, Tickets

### OVERVIEW OF POST-CONFERENCE EXCURSION AREA

![](_page_13_Figure_6.jpeg)

During the post-conference excursion, participants will gain a comprehensive insight into natural hazard management and the effects of climate change in the Alpine region in Austria. A special focus is therefore on hazard and risk scenarios that are strongly influenced by global warming. In particular, the retreat of glaciers and the thawing of permafrost as well as its subsequent processes, mostly alpine mass movements (such as rockfall, landslide, slope debris flow) are addressed and shown on selected areas. Not only mass movements, but also the transport of solids in alpine watercourses (such as bed load, debris flow, driftwood) will be analysed during the field trip. Another focus is on the protective forest with its risk factors of forest fires, storms and avalanches. Climate-related extreme events and

#### THE HIGHLIGHTS INCLUDE:

- Forest Campus Traunkirchen (the largest and most modern forestry training centre in Europe) with the Protection Forest Centre on lake Traunsee
- Gschliefgraben landslide
- Hallstatt World Heritage region
- Flood protection in the Alps

their consequences for the Alpine habitat are given special attention throughout the excursion.

The excursion leads to regions in Upper Austria and Salzburg that are heavily characterised by tourism, where the effects of intensive land use and the dramatic changes in vulnerability due to climate change are also shown. The changed risk scenarios in the Alpine region are pushing existing protection systems to their limits and require new, holistic protection concepts. The importance of hazard zone planning and risk-related spatial planning as well as long-term monitoring for climate and natural hazard risks thus take on a new dimension and are highlighted on the excursion.

- Sediment management in alpine watercourses
- Weather observation at the Sonnblick observatory (3106 m above sea level)
- Alpine mass movements under the influence of climate change
- High Alpine tourism under climate change

ORGANISATION:

 Wildbach- und Lawinenverbauung Forsttechnischer Dienst

![](_page_13_Picture_21.jpeg)

![](_page_13_Picture_22.jpeg)

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#### DAY 2 - 15TH JUNE 2024:

#### DAY 1 - 14TH JUNE 2024:

Vienna - Forest Campus Traunkirchen - Hallstatt | Overnight stay in Gosau (Upper Austria)

![](_page_14_Picture_3.jpeg)

# Hochkönig region - Saalfelden (Urslau) - Neukirchen am Großvenediger (Habach) - Fusch | Overnight stay in Fusch (Salzburg)

![](_page_14_Figure_5.jpeg)

![](_page_14_Picture_6.jpeg)

![](_page_14_Picture_7.jpeg)

![](_page_14_Picture_8.jpeg)

![](_page_14_Picture_9.jpeg)

#### DAY 3 - 16 JUNE 2024:

Tour 1: Fusch – Rauris/Kolm Saigurn – Sonnblick/Observatorium – Salzburg – Vienna Tour 2: Fusch – Kaprun – Kitzsteinhorn – Salzburg – Vienna

![](_page_15_Figure_2.jpeg)

On day 3 of the post-conference excursion the group will be divided and the participants can decide between one of the two attractive tours:

#### TOUR 1

The first stop of Tour 1 leads into the Rauris valley, which is famous for its beautiful nature. Secondly, the Sonnblick Observatory of GeoSphere Austria will be visited. This is a remote measuring and research station within the Austrian Alps. The research focus is based on global eco-system science with climate and environmental questions in particular.

#### TOUR 2

During Tour 2, participants will visit the popular winter tourism destination Kaprun, which is affected by natural hazards. Followed by the ascent to the glacier Kitzsteinhorn, which offers a unique view over the national park "Hohe Tauern". There the effects of climate change will be discussed as well as the consequences for high alpine tourism, as Kitzsteinhorn is also a famous ski resort.

In the end both tours will reunite again in the city of Salzburg, where the last stop of the field trip will take place. Afterwards a transport back to Vienna will be offered.

![](_page_15_Picture_9.jpeg)

<image>

#### **USEFUL INFORMATION:**

weather-appropriate clothing, suitable shoes, sturdy footwear, sure-footedness and free from giddiness (ascent by cable car). Safety equipment will be provided if necessary and must be worn accordingly!

The field trip will be held exclusivley in English.

![](_page_16_Picture_0.jpeg)

 Federal Ministry Republic of Austria Agriculture, Forestry, Regions and Water Management

 Wildbach- und Lawinenverbauung Forsttechnischer Dienst

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![](_page_16_Picture_4.jpeg)