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**Documentation Parallel Sessions**

**Title of the session: Zukunft ohne Naturräume?**
**Future without Natural Areas?**
**Session organisers: B.A.U.M.**
**Day and Time: 14.November**

**Moderation: Eva Berger / B.A.U.M. Austria**

**Panel Guests:**

- **Kerstin Friesenbichler / Umweltdachverband**
- **Gertrud Haidvogel / Universität für Bodenkultur**
- **Bernhard Kohler / WWF**
- **Johannes Peterseil / Umweltbundesamt GmbH**
- **Gerald Plattner / Naturraummanagement der ÖBf, B.A.U.M. Austria**

# Documentation

**Guests:** Gertrud Haidvogl, Kerstin Friesenbichler, Johannes Peterseil, Bernhard Kohler, Gerald Plattner
**Moderation:** Eva Berger

## Introduction by Eva Berger

- Explanation of B.A.U.M.
- Current problems with farming: climate change, heavy rain etc.
- Example illustrates problems: loss in natural land
- Importance of SDG 15: life on land

## Input of guests

**Kerstin Friesenbichler**

- Film about biodiversity by Umweltdachverband (in cooperation with BMNT) (https://www.youtube.com/watch?v=JWP4EEJ-l9k):
- Importance of biodiversity regarding to human health, medicine, immune system etc.; loss of biodiversity 1.000-10.000 times higher because of the influence of humans
- She demonstrates the importance of biodiversity and ecosystem services with an example of a walk (forests filter air, water cannot be retained if there are more and more sealings, stress declines if you are in the nature, ¾ of the leading types of global food crops depend on being pollinated by animals (means a market value of about 500 billion/year)) and shows the negative effects on biodiversity (e.g. intensive agriculture, renewable energy with insufficient consideration of possible effects of the locations of power plants on biodiversity, land usage / fragmentation

**Gertrud Haidvogl**

- Answering the question how the relationship between humans and nature changed in the perspective of environmental history. Emphasizes the importance of the main energy resource driving the development of nature and societies.
  1. Hunters and gatherers society: biomass
  2. Agriculture society: biomass, mostly wood (till 19th century)
  3. Fossil energy (coal)

  →Change from wood to coal allowed to grow in a dimension never known before (esp. second half of 20th century)
- Graphs of great acceleration of population growth, primary energy sources, CO2 emissions
- Case study of Vienna and its waters: Example Danube
  - First used for mills, transportation, fishing – compromise between different uses was key!
  - Change to fossil resources →changes on Danube: steam ships, water regulation, became international water
  - 1870-1875: flood protection→ result: regulation optimized shipping, but many fish habitats disappeared → import of fish (with railways) since 1900

- Change from wood to coal: Interdependency between provider and consumers changed; local and regional resources could have been substituted with those imported from far away.
- Positive effects of regulation and progress of the 19th and 20th century: improving hygienic standards, medicine, flood protection
- Side effects and legacies were not intended but we must deal with it now (ecosystem loss, biodiversity loss, river bed incision, pollution, improvement/maintenance of flood protection)

➔ Environmental history shows that there are many undesired effects of long term development → pre-cautionary principle more important

**Bernhard Kohler**

- Question: How much space does nature need?
- Presentation of SDG 15: protection of terrestrial ecosystems and inland water (15.1, 15.1.2), in accordance with relevant conventions -> this links to specific goals of the Convention on Biological Diversity
- Aichi target 11 of Convention of biological diversity (CBD):→ "By 2020, 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas… are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas"
- IUCN Definition of protected areas: "A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values" For IUCN, only those areas where the main objective is conserving nature can be considered protected areas; this can include many areas with other goals as well, at the same level, but in the case of conflict, nature conservation will be the priority.
- Aichi targets will be achievable by 2020: as of 2017, 14,8% of terrestrial areas and 6,3% marine water areas are already protected .
- In contrast to numerical figures, quality goals for protected areas will not be reached by 2020. Also, according to rapidly accumulating scientific evidence, 17% will by far not be enough to achieve full biodiversity protection.
- Reasons for loss of biodiversity: agriculture, forestry, hunting, fishing, mining, transportation, climate change, pollution, invasive species
- How much protection do we need? Worldwide at least 50% of protected areas will be necessary to preserve the existing biodiversity and keep up the most important ecosystem services ("Nature Needs Half")
- Within the Nature Needs Half-framework, "Protected Areas" refers to the full array of IUCN categories, from category I "Strict Nature Reserve" to category VI "Protected Area with Sustainable Use of Natural Resources". So this includes types of areas where moderate forms of land-use are still permissible.
- Actual situation in Austria (statistics of protected areas (2017)): ca. 28% of the area are under some form of legal protection, but the question is which percentage really is "effectively and equitably managed, ecologically representative and well connected"?
- Under the various protection schemes in place, probably less than 10% of Austria´s territory can claim to be located in protected areas that are effectively and equitably managed, and that are ecologically representative and well connected.. There is still a huge deficit in the implementation of nature protection at various levels.

**Gerald Plattner**

- Question: Which nature do we want? (shows picture of the nature)
- Presentation of SDGs
- Three dimensions of sustainability: nature, society, economy
- Facts&figures: 850 000ha land, 510 000ha forest, 50% of forests are protected areas (70.000ha strong protected)
- Tree felling of huge areas because of bark beetle, extreme winds, drought, heavy rain -> also economic effects (15.7 million/year loss of income because of bork beetle and storm-damaged timber)
- Solutions/adaptions: adjust forestry, climate change resilient trees, planting or natural regeneration of mixed forests
- Challenges: multifunctional forestry with protection of biodiversity, sustainable resource use and society needs -> integrative concept –> "Ecological Landscape Management" in the forest inventory for all areas managed by federal forests, with integration of biodiversity needs - protected areas, process conversation, habitat network at regional and local level, renaturing opportunities of biotopes and habitats;
- Complex challenges different shared approaches: cross sectorial, not just one dimensional

**Johannes Peterseil**

- Presentation of the H2020 project "ECOPOTENTIAL" focusing on supporting protected areas (PA) with regard to future challenges (including global and climate change). The project is funded under the H2020 programme (GA-Nr. 641762) running from 2015-2019. including 48 partners and 25 protected areas (4 of them outside Europe territory),
- Integration of existing sources (earth observation (EO) data as well as in-situ field data) and provision of data in order to support the management of protected areas (-> sensitive to climate change) is an important task
- Two levels: local level (storylines) developed with protection area managers (which data are needed in order to address local management issues); and focusing on cross protected areas to address larger scales
- Stressing the importance of In-situ field data in order to ensure validation of EO data as well as input to model development and calibration. ECOPOTENTIAL provides and further develops EO data products (e.g. Hydroperiod) as well as focusing on the detection of occurrence and type of land cover changes (e.g. EODESM Earth Observation Data for Ecosystem Monitoring). Data from Copernicus as well as raw data from Sentinel missions are used to develop user tailored workflows.
- Modelling approaches are applied to understand the effects of climate change on habitat suitability and identify threads for protected areas as basis for mitigation measures within protected areas.
- Workflows and data are provided via a "virtual laboratory platform (VLAB)": tool for protection area managers (models for areas with specific data) to enhance usability and accessible of the results

# Panel discussion

**Question from Eva Berger:** Do you think you would describe the year 2018 as a turning point in the year 2050?

**Gertrud Haidvogl:** Positively seen as a citizen: noticed that there is an increasing awareness that environment changes a lot for everyone; hard to say if one year can be seen as a turning point (slow process); sight out of history: if you have one year as a turning point, it is mostly not positive; tipping points are not often positive, change is very slowly, example: e.g. warning through club of Rome report etc. in 1972 but it still became worse

**Kerstin Friesenbichler:** milestone COP14 CBD 2018 (same importance as Climate COOP but less media presence): hope that there will be common efforts to act

**Bernhard Kohler:** The 17%/10% target will be discussed at the conference as well, and target figures may be increased.

**Question of Eva Berger:** Naturschutzbund Burgenland buys sensitive areas to protect them. What is your opinion?

**Gerald Plattner:** it is too expensive to buy sensitive areas and not possible to have just protected areas without use; other actions also possible (mix of uses much more present in central Europe, bigger problems in north America (intensive agriculture -> protected areas have a different importance)

**Bernhard Kohler:** Naturschutzbund Burgenland is just able to buy a fraction of valuable areas -> Instead of buying land for nature protection, landowners should receive incentives and be equitably paid for ecosystem service provision, going beyond traditional revenues from agriculture, forestry, hunting etc. -> our economic system must be restructured accordingly
The Nature Needs Half concept advocates for 50% protected areas and fully sustainable production on the remaining 50% (strong interdependencies)

**Johannes Peterseil:**
focusing on the role of small habitats as part of the agricultural landscape (e.g. field margin, hedges, low production grassland) which are contributing to biodiversity is needed
Project of university Vienna (1995): comparison of cultural landscapes (Kulturlandschaft) in Mühlviertel (Austria), Bayerischer Wald (Germany) and Sumava (Czech Republic) showing different levels of natural areas in the agricultural matrix -> time journey during the same time showing different levels of land aggregation due to management history (e.g. socialistic agricultural planning)

## Input Sir Karl Popper School

**Questions of Eva Berger:**

1) How changed the relationship to the real nature in terms of virtual reality?
2) How influences urbanisation the relationship to nature?
3) How do you estimate the best practice example of the speakers?
4) Who do you think is responsible to preserve the nature?

**Answers of pupils:**

1) There is a misapprehension of adults about VR (too expensive); cannot replace the experiences in the real nature (but augmented reality has a bigger influence)

2) New technologies or urbanisation can never be replaced; because of urbanisation, there is a stronger need to be in the nature
4) Because of the system democracy everyone is responsible to preserve the nature
3) Interesting issues, **Question to Bernhard Kohler**: What is the task of WWF?
**Bernhard Kohler:** setting up more protected areas, improving the management of existing ones, restore degraded nature, prevent further destruction (e.g. hydropower plants in valuable river sections).
-> mostly model projects to show the direction/solutions in which it could go

**Question of a pupil to Gerald Plattner:** Isn`t it conflicting to support planting of climate resistant trees?

**Gerhard Plattner:** it is important to have a mix to adapt to the climate change, it is an intervention into the nature, but timber is important as a sustainable material (co2 neutral),

**Bernhard Kohler:** it is very important to keep the long-term impacts in mind (During the past 100 years, forestry has mostly relied on cold-loving tree species, like spruce. Under a warming climate, this has created the huge forestry problems we can see today. The introduction of exotic species as a reaction to climate change might have similar, unintended consequences and should be considered carefully.

**Kerstin Friesenbichler about point 4):** you can have an influence as citizen (consume, engagement), it seems that you have no influence in politics but voting, saying your opinion is important

**Gerald Plattner about point 2):** important to have emotional relationship to nature to see the quality and get a feeling what you have

**Gertrud Haidvogl about point 4):** what can everyone do? Consume is deciding (how much energy is needed for different products) as important as preservation of the protected areas

**Bernhard Kohler:** A practical idea for immediate conservation action: there is a very important EU directive, the “Water Framework Directive”. It provides high standards for water and wetland protection and ambitious goals for wetland restoration; right now, the directive is under revision (a so-called fitness check), which may result in a lowering of the standards. But every EU citizen can take part in a a public consultation and vote for keeping up the standards. This can easily be done via (https://www.wwf.at/de/wasser/

**Question of the audience to Bernhard Kohler:** There are much more people in Austria, how influences that the nature/protection of the environment?

**Bernhard Kohler:** population is an important aspect but more important as the absolute number of people is their lifestyle

## Final words of Eva Berger