

Carpivia and CarpathCC – Projects Introduction



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Carpathian Network of Protected Areas
Steering Committee
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CARPIVIA

CARPATHIAN INTEGRATED ASSESSMENT OF VULNERABILITY TO
CLIMATE CHANGE AND ECOSYSTEM-BASED ADAPTATION MEASURES

Carpivia – general information

- ▶ Carpivia – Carpathian integrated assessment of vulnerability to climate change and ecosystem-based adaptation measures
- ▶ Project leader: Alterra, Wageningen; Project lifetime: 2011–2013
- ▶ Contributes to the preparatory action “Climate of the Carpathian Basin*” approved by EP
- ▶ Project objectives:
 - To gather information on vulnerability of environmental resources to climate change
 - To identify and assess potential adaptation measures
 - To contribute to on-going national or regional adaptation strategies or related policy processes

*

The objective of the preparatory action “**Climate of the Carpathian Basin**” approved by the European Parliament is to investigate the detailed weather-related and spatial structure of the Carpathians Region with integrated or at least comparable methods. The basic results will be a contribution to regional climate variability and change studies, and applied climatology

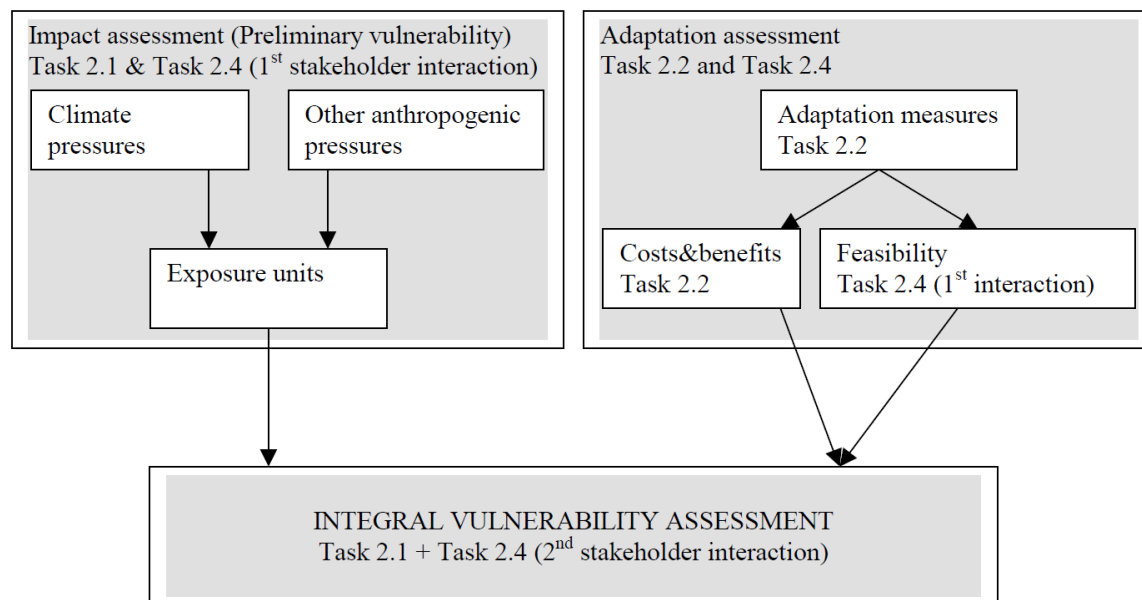
Carpivia concept

Vulnerability of:

- ▶ Water resources (rivers, lakes, groundwater)
- ▶ Ecosystems (forests, grasslands, wetlands)
- ▶ Ecosystem based production systems (agriculture, forestry, energy, tourism...)

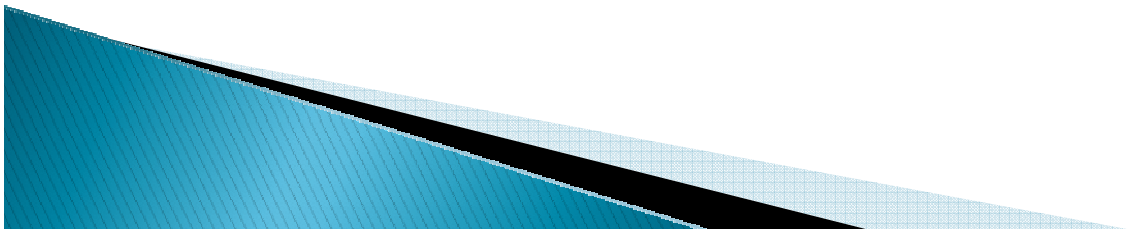
To:

- ▶ Increasing drought
- ▶ Increasing frequency of heat waves
- ▶ Increasing frequency of winter floods & torrential flood events
- ▶ Other man-made pressures (*relative to climate change*)



Carpivia – Actions and Outcomes

- ▶ Vulnerability assessment
- ▶ Identification and evaluation adaptation measures, incl. cost benefit analysis
- ▶ Data inventory and information gap analysis
- ▶ Stakeholder consultation
- ▶ Web-supported knowledge system with information on vulnerability of water resources, ecosystems and ecosystem based production systems, and on ecosystem based adaptation measures



Link Carpivia – CarpathCC

- ▶ First year of Carpivia project was to identify the knowledge gaps to be filled in by additional field research and/or case studies
- ▶ These support studies are to be executed by a parallel framework contract – this is the task of the service project CarpathCC Project
- ▶ Project leader: VITUKI (Environmental and Water Management Research Institute), Hungary, Project lifetime: December 2011–March 2013
- ▶ The project is based on the pool of regional experts who are expected to compile the knowledge on vulnerability of water resources and ecosystems; including a series of case studies in focal areas



CarpathCC

▶ **Module SR1**

In-depth study on the key climate change threats and impacts on water resources

Module SR2

In-depth study on the impacts of climate change threats on ecosystems

Module SR3

In-depth study on the impact of climate change on ecosystem based production systems

Module SR4

In-depth study on adaptation measures

Module SR5

Supporting stakeholder interaction

Module SR6

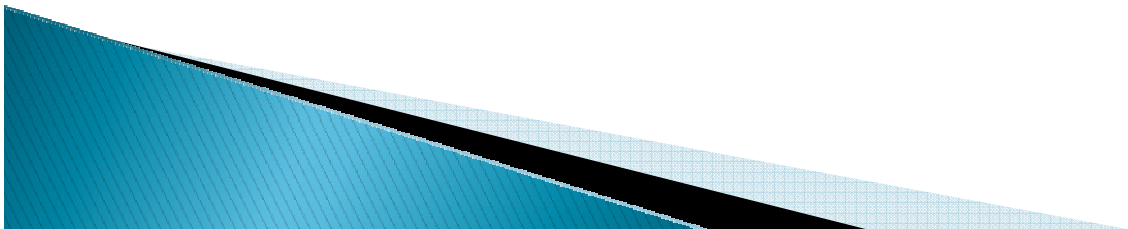
Integrated vulnerability assessments in focal areas



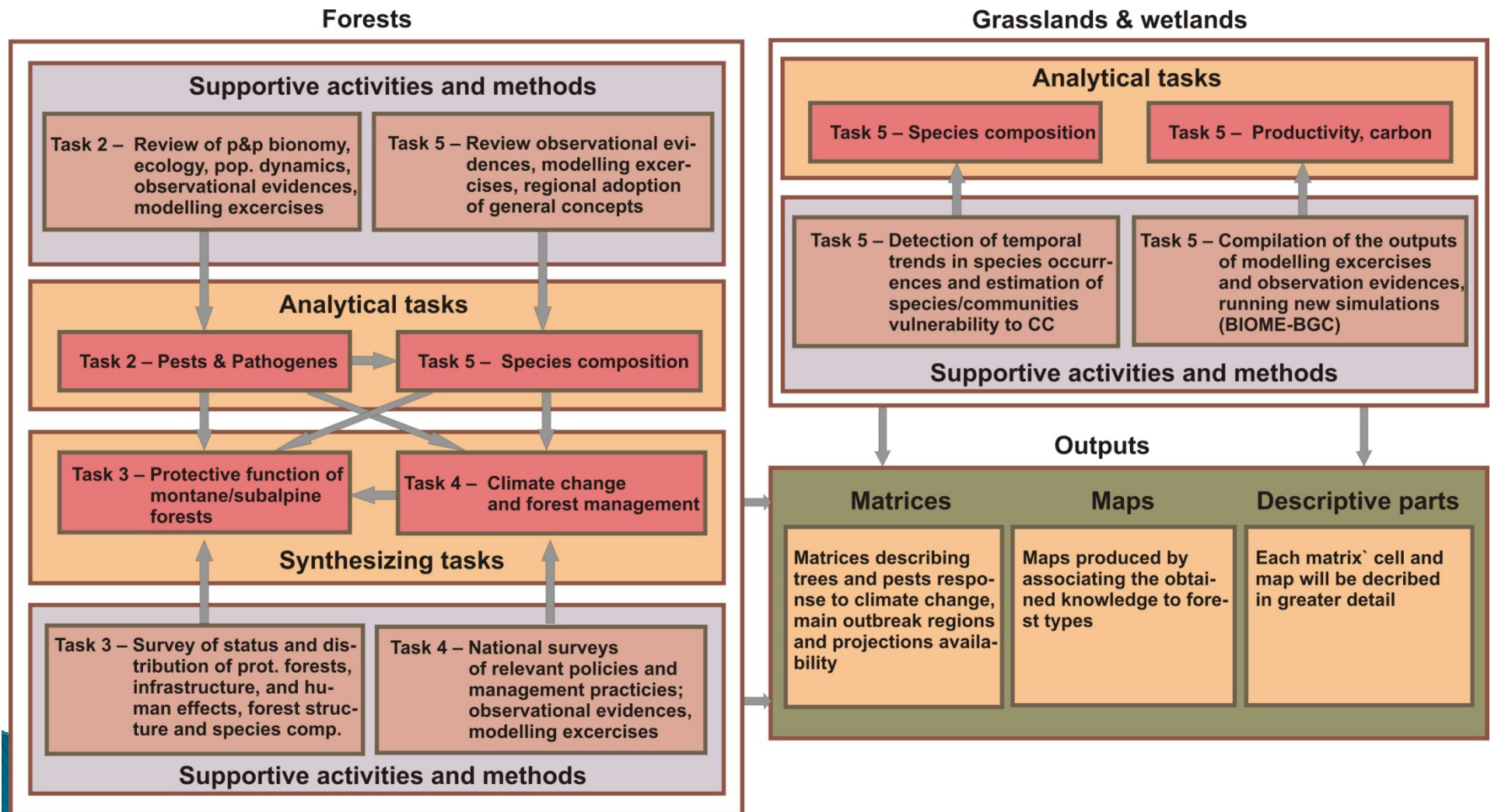
SR2 structure – Impact on ecosystems

Actions

- ▶ Forests, grasslands and wetlands are addressed
- ▶ Carpathian-wide survey of CC impact on pests, pathogens, species shifts
- ▶ Running additional simulation exercises so as to fill critical information gaps
- ▶ Survey of adaptation strategies, programmes
- ▶ Carpathian-wide vulnerability assessment in term of „exposure–sensitivity–adaptive capacity“ concept



SR2 structure – Impact on ecosystems



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