

Integrating Nature and Society towards Sustainability

**The 1st Forum Carpathicum
Conference at the Jagiellonian University, Kraków, Poland
15–18 September 2010**

Katarzyna Ostapowicz

The current status and future direction of research focusing on the Carpathian mountains in broad range of disciplines were presented and discussed by about 200 scientists, practitioners and stakeholders from 13 countries during the 1st Forum Carpathicum which was held in September 2010 in Kraków at the Jagiellonian University. Conference topics covered among other Climate Change, Biodiversity and Conservation, Forests, Urban and Rural Development, Natural Hazards or Tourism. The outcomes show that there is a strong need for pan-Carpathian, inter- and trans-disciplinary research. An emerging theme for the region is the integration and harmonization of data.

The Carpathian arc, the ‘European Green Backbone’, stretches across countries which are situated in the Central and Eastern Europe and currently, 20 years after the fall of the Iron Curtain, they are still experiencing rapid socioeconomic transformation with a number of challenges to sustainable development (land use change, depopulation of marginal areas, environmental

degradation and pressure on natural resources). Studies in the disciplines like geography, biology, anthropology and history have been carried out in the Carpathians on a large scale since the 19th century, but still there is a weak relation to global mountain research community (e.g. research results are published mostly in national languages, participation level in EU-funded projects is insufficient) and a lack of transfer between research and practice. Taking into account the outstanding value of the Carpathians and the high complexity of ongoing changes, the Science for the Carpathians network (S4C), initiated an open interdisciplinary mountain conference – the FORUM CARPATIUM.

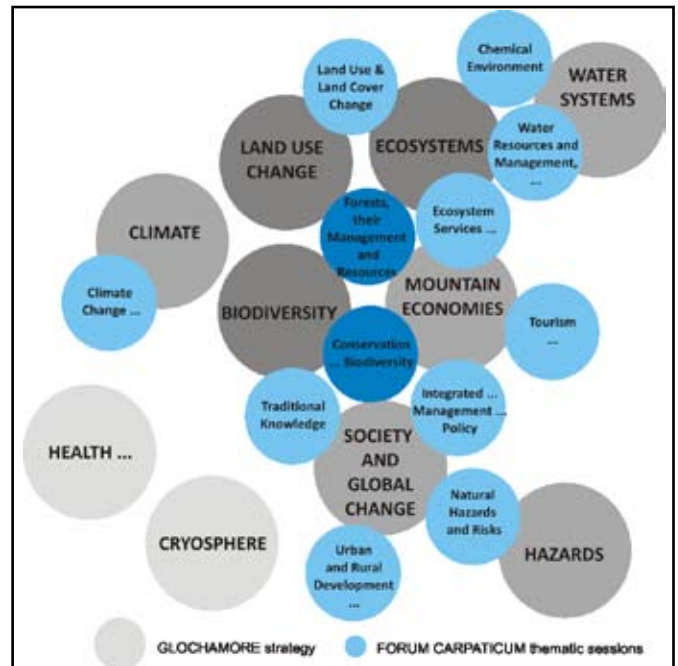


Figure 1. Forum Carpathicum thematic sessions in relation to GLOCHAMORE strategy areas; light grey – no involvement; grey/blue – medium involvement; dark grey/dark blue – strong involvement

Forum Carpathicum outcomes: current status of the research in the Carpathians

The 1st Forum Carpathicum dedicated to the “Integration of nature and society towards sustainability” was held in Kraków at the Jagiellonian University



The 1st Forum Carpathicum (September 15-18, 2010): the plenary session; the Orava Ethnographic Park Museum in Zubrzyca Górna (the field trip to the Podhale region); the poster session (from left to right) © Bartosz Załuski, Katarzyna Ostapowicz, Dominik Kaim

from 15 to 18 September 2010. About 200 participants, mostly scientists but as well practitioners and stakeholders discussed the current status and future directions of the Carpathian research. Twelve session topics of the Forum covered a broad range of disciplines in various spatial and time scales (Ostapowicz and Kozak 2010), and almost all topics from the Global Change and Mountain Region Research Strategy (Bjørnsen Gurung 2006; Fig. 1).

The discussed issues of climate change focused on climate predictions and showed a warming of climate in the future, depending on the elevation, with increases of temperature and subsequent changes in snow cover duration. The chemical environment of the region was addressed in the context of air and water pollution and its consequences for e.g. forest health and forest growth. Forests, one of the most important resources in the Carpathians, appeared in many sessions in various contexts. The discussion during the special Forest sessions covered the hot topic of massive spruce decline; further, new technologies of forest health monitoring or ecosystem services (e.g. carbon storage) were also presented. Changes in forest cover or biodiversity and their drivers, like an increase of forests due to land abandonment (e.g., in Poland), forest decrease and illegal logging and changes in ownership (in Ukraine and Romania) were also well represented in the Land Use and Land Cover Change session. Biodiversity was also considered in the context of habitat diversity or loss of grasslands. A wide range of presentations referred to conservation and protection approaches to natural resources and historical or cultural landscapes (e.g. preservation of traditional knowledge or related EU policies). The important components of this landscape are rural and urban areas, their spatial distribution and drivers of

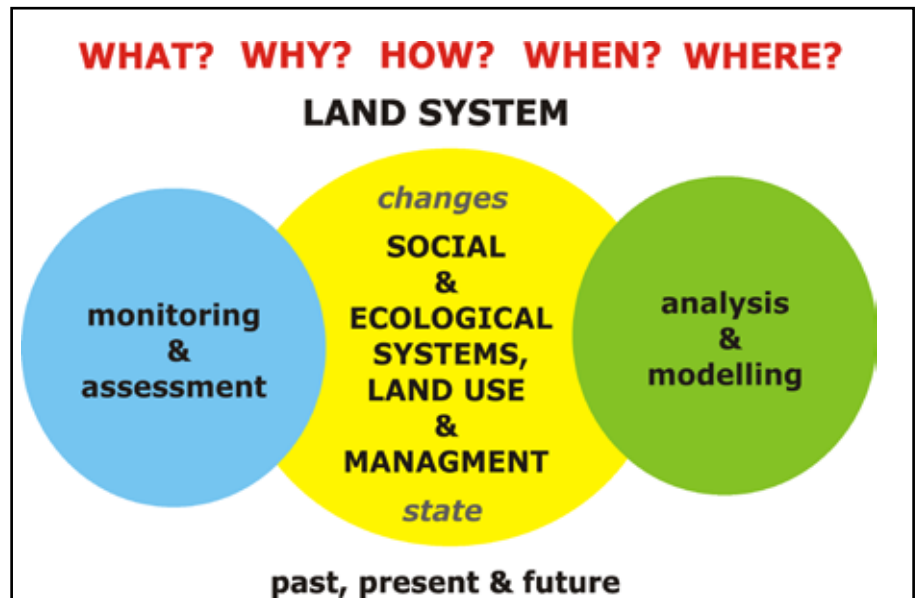


Figure 2. Future directions of the Carpathian research (based on the GLP research framework, GLP 2005)

their change (e.g. historical background, local development or accessibility).

“Forests, one of the most important resources in the Carpathians, appeared in many sessions in various contexts.”

The value of region and sustainable development is moreover important for tourism and its potential opportunities for development trajectories but also for challenges related to global employment risks and employment in

local communities. Important issues discussed during the conference also referred to spatial planning and natural hazards or risks assessment (e.g. landslides or avalanches), especially in the context of this year flooding in southern Poland. Finally, hydrological (data analysis and modelling) and hydroecological watercourses research (mostly small case studies) were also addressed.

Emerging topics for the Carpathian research

The current status of research in the region clearly showed that there is a strong need of more integrative, trans-



The field trip to the Podhale region after the 1st Forum Carpathicum – the Czorsztyńska Dam on the Dunajec River. (September 18, 2010) © 2010 Jacek Kozak

and multidisciplinary approaches in comparison to the present fragmentation of the Carpathian research community but also of pan-Carpathian or meta-studies merging the results from different parts of the region and situating them in the global context.

These should focus on:

- (1) monitoring and assessment of dynamics of land use and land management (past, current and future changes), and ecological (biodiversity, water, soil or air) and social (population, economic/social structure or technology) systems,
- (2) drivers and consequences of land system changes (ecosystem services and decision making), and – a clear reference to the theme of the 1st Forum Carpathicum –
- (3) integrated analysis and modelling for land sustainability (system vulnerability or effective governance) (Fig. 2). These topics clearly refer to the research framework of the Global Land Project (GLP 2005).

An emerging theme which was stressed during all discussions is a need of better



The Czorsztyńska Dam on the Dunajec River, view of the Niedzica Castle - the field trip to the Podhale region after the 1st Forum Carpathicum (September 18, 2010) © Katarzyna Ostapowicz

access and knowledge about quality of existing data, and generation of new data in ways which enable data sharing among researchers. The example of this kind of activities might be the DIAMONT project from the Alps (<http://www.uibk.ac.at/diamont>).

The issue of data integration and harmonization fits also very well to the actions of the European Commission under the INSPIRE Directive (<http://inspire.jrc.ec.europa.eu>).

Further discussions on the Carpathian

research strategy are planned within the S4C during the future network activities (e.g. working/thematic groups meetings) while the 2nd Forum Carpathicum will be held in Slovakia (May 30th – June 1st, 2012).

Author

Katarzyna Ostapowicz, assistant professor (adiunct), Department of GIS, Cartography and Remote Sensing, Institute of Geography and Spatial Management, Jagiellonian University, Kraków, PL
kostapowicz@gis.geo.uj.edu.pl

Workshop conveners

Forum Carpathicum Scientific Committee, Forum Carpathicum Organizational Committee and Forum Carpathicum Plenary Forest Session Committee

The names of the committees members can be found at www.forumcarpathicum.org/Committee.html.

The list was not published here due to lack of space.

Weblinks

More information about the Forum Carpathicum can be found at www.forumcarpathicum.org

References

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