



Position Paper of the European Ecological Federation (EEF) to the workshop on:

“Investing in Innovative Research for Nature and our livelihoods: Strengthening the research strategy to reinforce the ERA on Biodiversity”

The European Ecological Federation is the umbrella organization of the national and regional Ecological Societies of Europe. Here we outline six general questions that the EEF highlights as major questions that need increased attention in ecological and biodiversity research in Horizon 2020, in order to contribute to the sustainable use and conservation of biodiversity. The questions relate to patterns and drivers of biodiversity from genetics to ecosystem levels, how human welfare and ecosystem services are affected by biodiversity components and their interactions, and relations between biodiversity science and society.

Rationale

In the Framework program **Horizon 2020** the first major goal is to “Strengthen the EU’s position in science with a dedicated budget of € 24 598 million. This will provide a boost to top-level research in Europe, including an increase in funding of 77% for the very successful European Research Council ...” (http://ec.europa.eu/research/horizon2020/index_en.cfm?pg=h2020).

The TEEB report showed the importance of biodiversity and ecosystems services at a global scale. It is clear that the three interrelated issues of Biodiversity, Ecosystem Functioning and Ecosystem Services are crucially important to the future of European countries and for the European economy. Ecosystem and biodiversity research is central for meeting the main challenges for the future of Europe.

The European Ecological Federation (EEF)

The European Ecological Federation is the umbrella organization of the national and regional Ecological Societies of Europe representing more than 8000 scientists across the continent.

The European Ecological Federation enables cooperation between European ecological societies in order to promote the science of ecology in Europe. It does this through:

- Providing a forum for effective communication throughout the community of ecological scientists in Europe on matters of common interest.
- Disseminating ecological knowledge through meetings, publications and other means.
- Acting in an advisory, consultative and representative capacity in relation to European institutions.
- Promoting collaborative activity on those matters where there is a pan-European context.
- Cooperating with other international organizations.

The EEF acts as the main representative of the scientists and is the principal scientific voice in biodiversity and ecosystem research. Therefore, the EEF is well-placed to contribute to the formation of European policy regarding the science of biodiversity and ecosystems.

Ecological and Biodiversity Research as a central challenge in Horizon 2020

The main challenge in this field of research can be divided into six general questions:

1. How we can detect biodiversity patterns from the genetics up to the ecosystem level better.
2. What are the processes behind the emergence of biodiversity?
3. How does biodiversity matter for the survival of Humans on earth?
4. How we can use, manage and conserve biodiversity in a more sustainable way.
5. How are biodiversity components and their interactions translated into ecosystem functions and ecosystem services?
6. What are the main interactions between biodiversity and society?

Only by answering these questions can the future social, economic and environmental development of Europe be guaranteed.

Global-scale processes like land-use change, climate change, the spread of nonnative species, pollution by nitrogen and other chemicals as well as demographic changes in combination with increasing urbanization including their impacts on biodiversity, ecosystem functions and ecosystem services must be understood properly and in detail especially their impacts on biodiversity, ecosystem functions and ecosystem services.

The EEF is ideally placed to propose major topics of future research as well as needs for large infrastructure in biodiversity and ecosystem research at different time and spatial scales. This includes strengthening of the already existing networks and the strengthening collaboration between them.

Final statement

The adaptation and mitigation to global change processes must focus on the sustainable use and conservation of biodiversity and ecosystem functions. This should be one of the major issues in the **Horizon 2020** process. Only by answering the six general questions of biodiversity research can social and economic development be safeguarded.

The European Ecological Federation is a network of competence in this field of research with more than 8000 scientists across Europe. The EEF members engaged in ecological and biodiversity research are a major foundation for the further economic and social development of Europe and wish to contribute actively in the development of European programs.

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