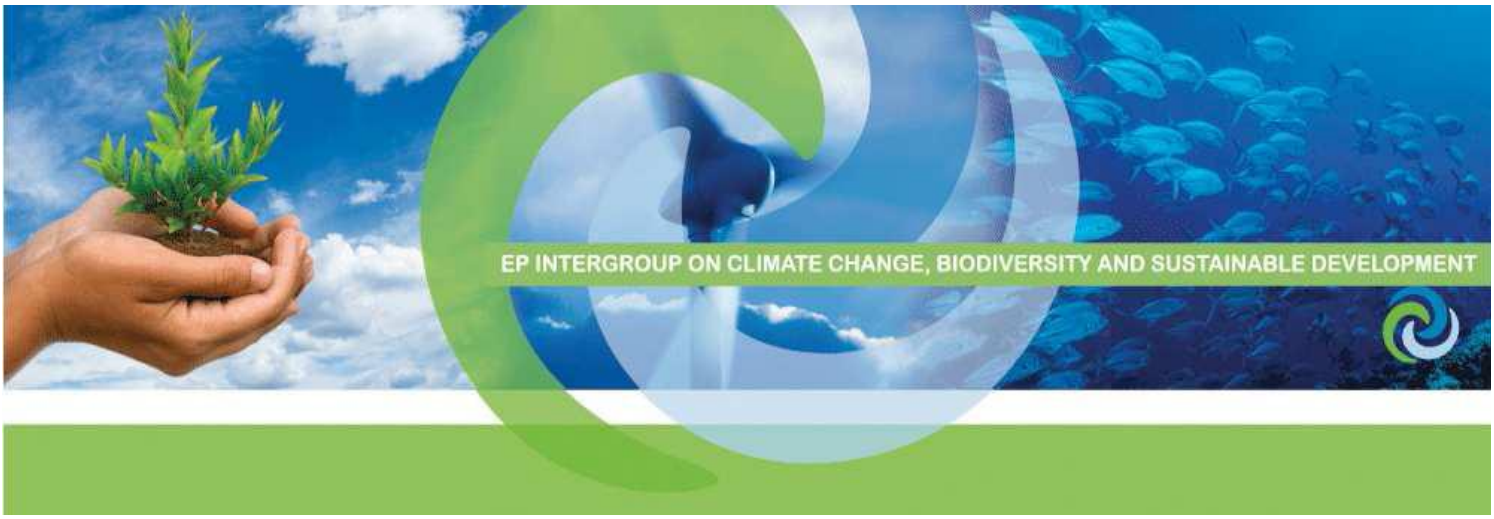

REPORT

"Transactional Environmental Support System (TESS) Conference"

*Chaired by **MEP Cristina GUTIÉRREZ-CORTINES (EPP, Spain),** Co-Chair of the Intergroup "Climate Change, Biodiversity and Sustainable Development"*

Wednesday, 25th May 2011
European Parliament, Brussels

"**T**ESS can change the things by introducing good practices and using local authorities as [bridges] for knowledge transfer", said Cristina Gutierrez-Cortines, Member of the European Parliament. The event demonstrated that local knowledge is key and that people can play an active role in collecting information on biodiversity and related environmental matters. Their full motivation and empowerment are therefore of paramount importance.

Fully aware of the potential and crucial role of TESS, the European Environment Agency has offered to become the home for TESS. It is now time to take up a new challenge: setting up a knowledge portal aiming to deliver decision support.

TESS is a research project supported by the 7th Framework Programme of the European Commission. It assists the integration of biodiversity information from the local level into planning and land-use decisions, while at the same time encouraging local people to collect such information in order to maintain and restore biodiversity and ecosystem services.

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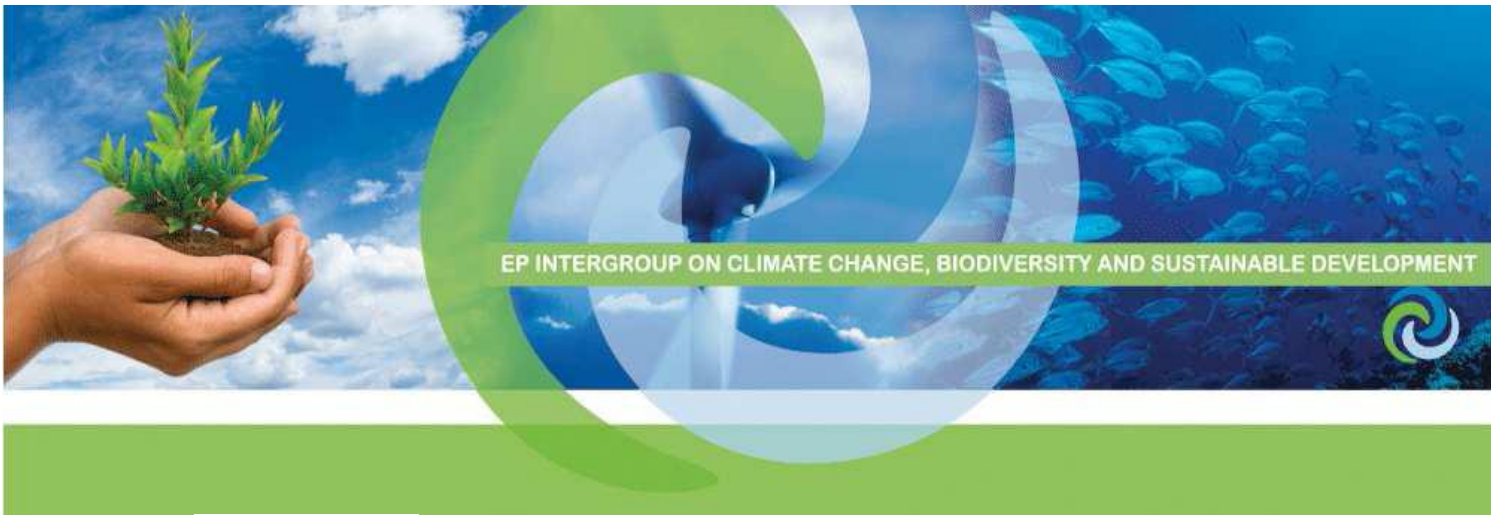

Opening statement **by MEP Cristina Gutierrez-Cortines**

The TESS project is very important and will hopefully improve the knowledge of EU citizens regarding biodiversity. This is a great opportunity to induce good practises, which is sometimes difficult because of problems at local authorities' level.

Opening statement by **Basil Manos, Aristotle University of Thessaloniki**

Professor Manos presented the objectives and the agenda of the conference and explained that TESS already run for 33 months (until June 2011), with 14 partners from 10 EU countries, and 27 country coordinators from each Member State as well as coordinators from Norway, Switzerland, Ukraine and Turkey.

The project is divided into 5 main research phases:
1) Analysis of government information requirements
2) Creation of a database of models suitable for bio-socio-economic predictions and identifications of gaps in the supply of models and data
3) Case studies research and a Pan-European survey
4) The socio-economic and technical design for a TESS
5) Recommendations and policy guidelines

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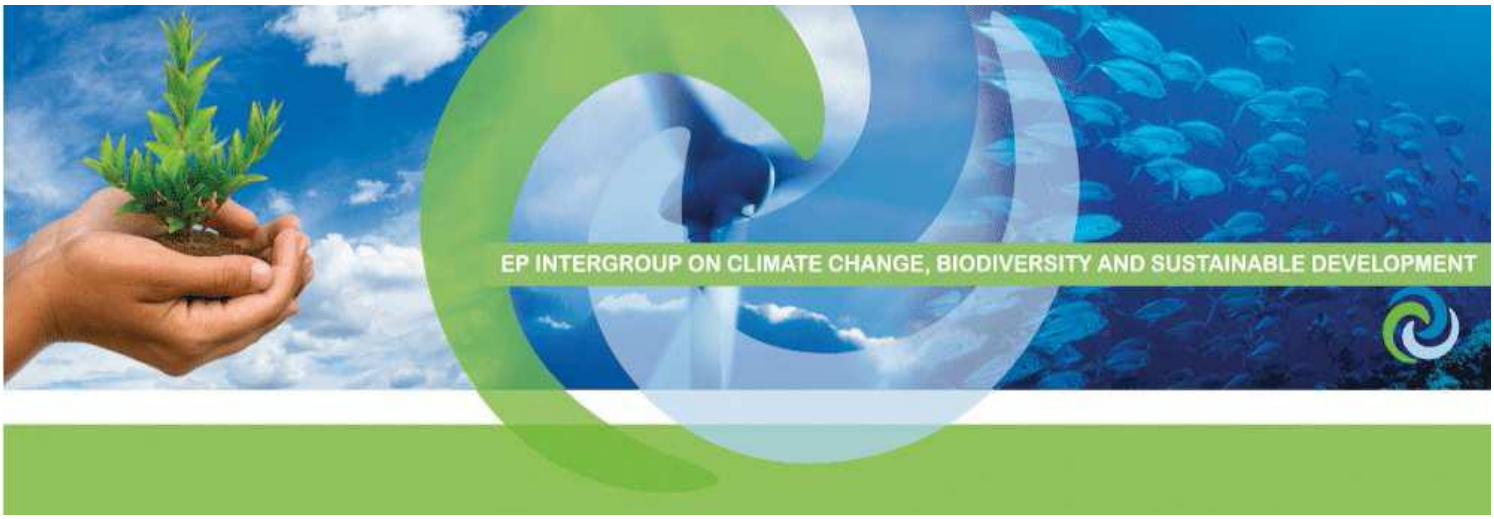

Opening statement **by Olivia Chassais, European Commission, DG Research and Innovation, I2 Unit "Environmental Technologies"**

Ms Chassais stressed that the TESS project is important in several ways.

- With regard to the EU Sustainable Development Strategy whose review was produced in 2009.
- With regard to the Europe 2020 Strategy, a strategy for smart, sustainable and inclusive growth.

TESS can help Europe in particular regarding two flagship initiatives:

- "Innovation Union" to improve framework conditions and access to finance for research and innovation so as to ensure innovative ideas can be turned into products and services that create growth and jobs.

- "Resource efficient Europe" to help decouple economic growth from the use of resources, support the shift towards a low carbon economy, increase the use of renewable energy sources, modernise the transport sector and promote energy efficiency.

- With regard to the Roadmap to a resource efficient Europe, with an EC Communication to be released this summer.

Six sub-working groups were set up and DG Research and Innovation is involved in all of them.

- Sub-group 1: Sustainable materials management
- Sub-group 2: Food, fisheries and land use
- Sub-group 3: Infrastructure, logistics, buildings and planning
- Sub-group 4: Working with the market
- Sub-group 5: Research needs, modelling, metrics and indicators
- Sub-group 6: Impact assessment

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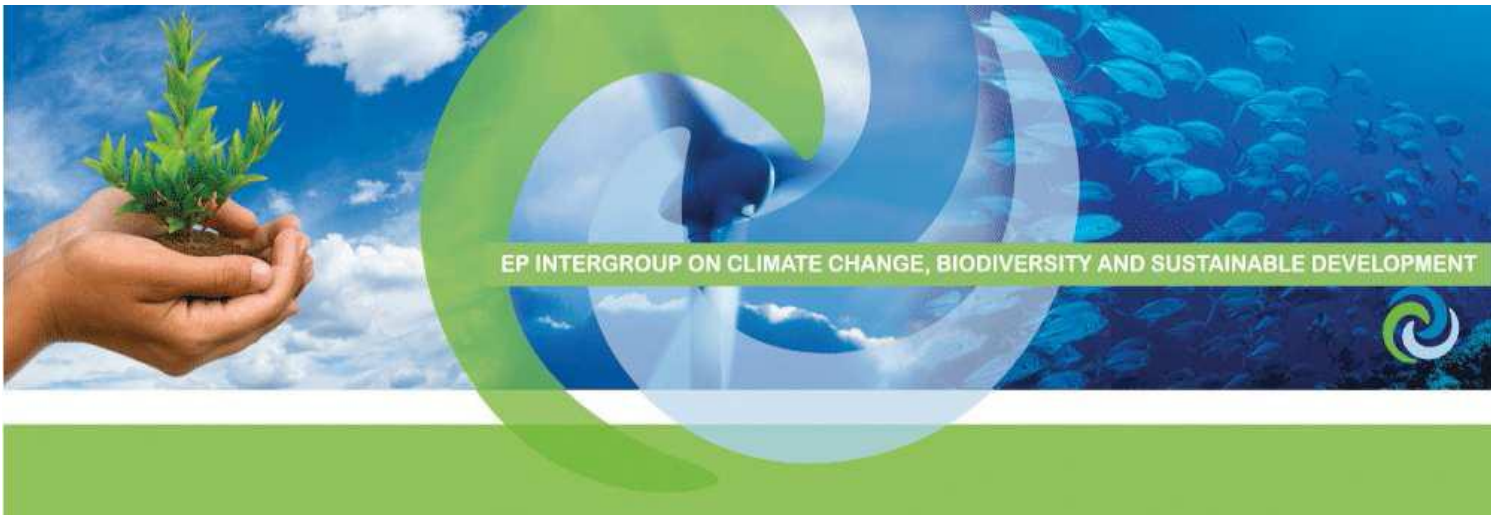


- With regard to the interdepartmental coordination group on "GDP and beyond"

The need to improve data and indicators to complement GDP has been increasingly recognised. In November 2007, the European Commission (together with the European Parliament, the Club of Rome, the WWF and the OECD) organised the Beyond GDP conference. The conference revealed strong support from policy-makers, economic, social and environmental experts and civil society.

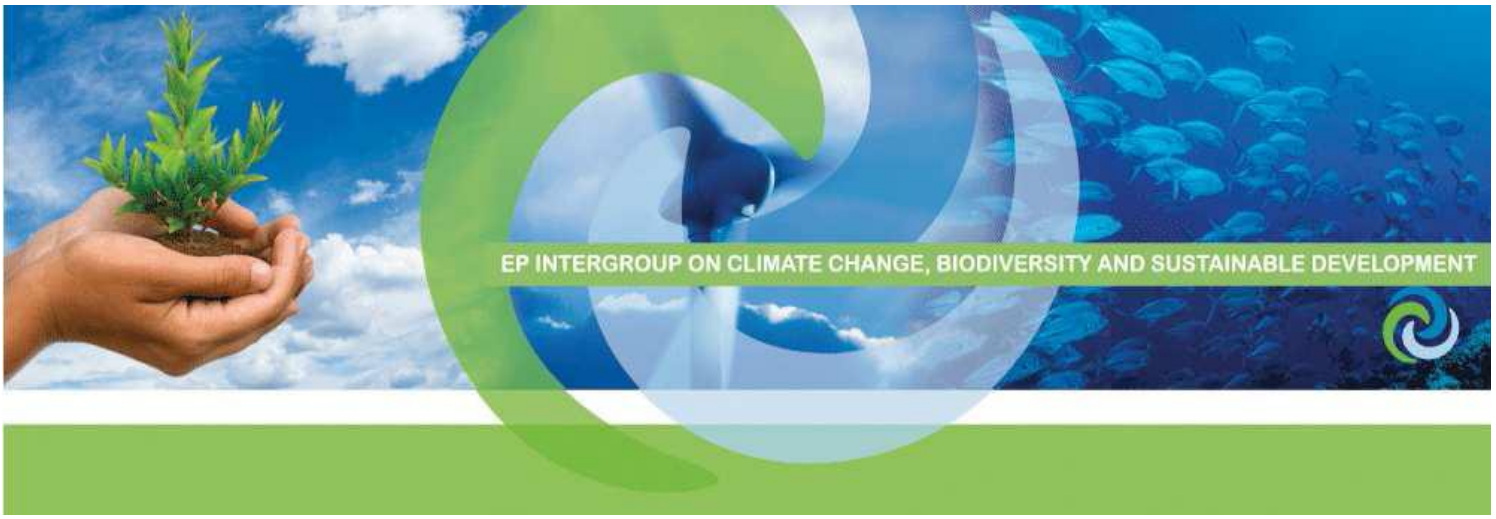
Two key documents have been released since then:

- The Communication of the Commission on "GDP and beyond" in 2009
- The report of the Commission on the Measurement of Economic Performance and Social progress ("Stiglitz Commission") in 2009

Within the EC, in order fully to coordinate the further work on going "beyond GDP", an interdepartmental coordination group was set up early in 2010. This is a high level group in which the Director General of DG ENV and that of Eurostat participate on a regular basis. A key recent issue was to determine whether it is desirable or not to proceed to the valuation of natural capital.

- With regard to the Working group on Sustainable Development Indicators (SDIs). On 13-14 October, the next meeting of the SDIs Working Group will be held in Eurostat premises, with representatives from the European Commission DGs, agencies and international organisations as well as EU Member States, EFTA and candidate Countries.

- With regard to the Rio+20: Towards the green economy and better governance (EC Communication to be released this Summer). In essence, the transition to the green economy is contingent upon 3 interlinked policy dimensions:
  - Investing in the sustainable management of key resources ("what")
  - Establishing the right regulatory and market conditions ("how")
  - Improving governance and private sector involvement ("who")



Importance is given to biodiversity and indicators.

Finally, Ms Chassais emphasised the process to register in order to qualify to work as an expert for the EC for evaluation, reviews, etc. . I insisted that all the fields have to be properly filled as experts are pre-selected on the basis of a key words search.

A Transactional Environmental Support System for Europe: Why, What and How?

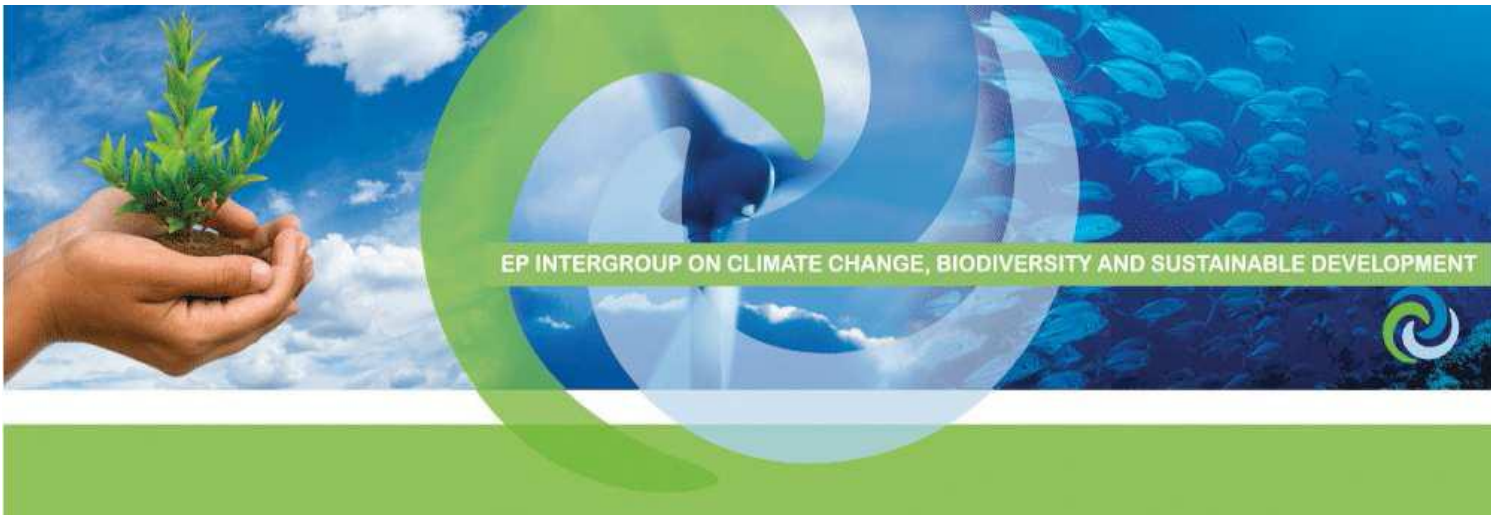
Stratos Arampatzis, Tero Ltd.

Mr Arampatzis first explained why a project such as TESS is necessary. According to him, formal environment assessment systems cannot easily reach individual managers (Farmers, Foresters, Reserve managers, Anglers, Hunters, Access Interests…), who make daily informal decisions and therefore change land use and the state of the environment.

The TESS project is also to be applied in the context of the CBD (Convention on Biological Diversity), and particularly the articles 10 and 11, respectively on customary use of biological resource and on economic and social measures for conservation and sustainable management.

He then explained that the TESS project would be an exchange between local stakeholders and central policymakers, as a win-win situation. This would be an opportunity for central policy to get local knowledge and actions and for local managers to get complex knowledge to guide their actions. The TESS project will be internet-based, he added.

He then stressed that the project is divided into 5 work packages. The first two are the “Central survey” work package and the “Local survey” work package. The first one reviews data transfer from central to local and from local to central infrastructures, while the second one identifies the information sources and barriers (e.g. accuracy, scale, access and updating) of local councils and land managers. The other work packages are on “Models”, “Case studies” and “Policy + internet”.



Policy Impacts on Pan-European Trends in Ecosystem Services and Biodiversity

Pedro Beja, Natural resources Manager, ERENA

Mr Beja recalled some main results of the TESS project, which used "*Identification of associations of policies on land uses and economic activity to trends in ecosystem services and biodiversity at the Pan-European scale in order to find indicators of best practice*". He stressed that this analysis has been based on the capacity, priority, process and impact framework developed in the project GEMCONBIO. The sources of the analysis come from different international organisations and institutions such as the United Nations, the European Environment Agency, the World Bank, the GEMCONBIO project and TESS studies. To draft the analysis, a survey was realised at a pan-European level. The results provided many data on institutions, governance implementation, attitudes, consultation, biodiversity variables, species conservation status, rates of land-change, Natura2000 sufficiency, human populations, GDP etc…

The conclusions of the analysis showed that structural ecological and socio-economic capacity features may have lasting impacts on biodiversity patterns and processes. Governance capacity and governance process may have much weaker impacts, probably because they have acted over relatively short time frames. He added that variation in management priorities and governance process may reflect responses to the impacts perceived by the society.

Case studies results

Dimitra Manou & Dr. Jason Papathanasiou, Aristotle University of Thessaloniki

Ms Manou first said that local case studies within the TESS programme consisted of two projects: the mapping project and the socioeconomic project. Moreover, a five-part questionnaire has been developed, based on different variables such as forestry or farming. Ten case studies took place in 9 countries (among them 2 in Turkey).

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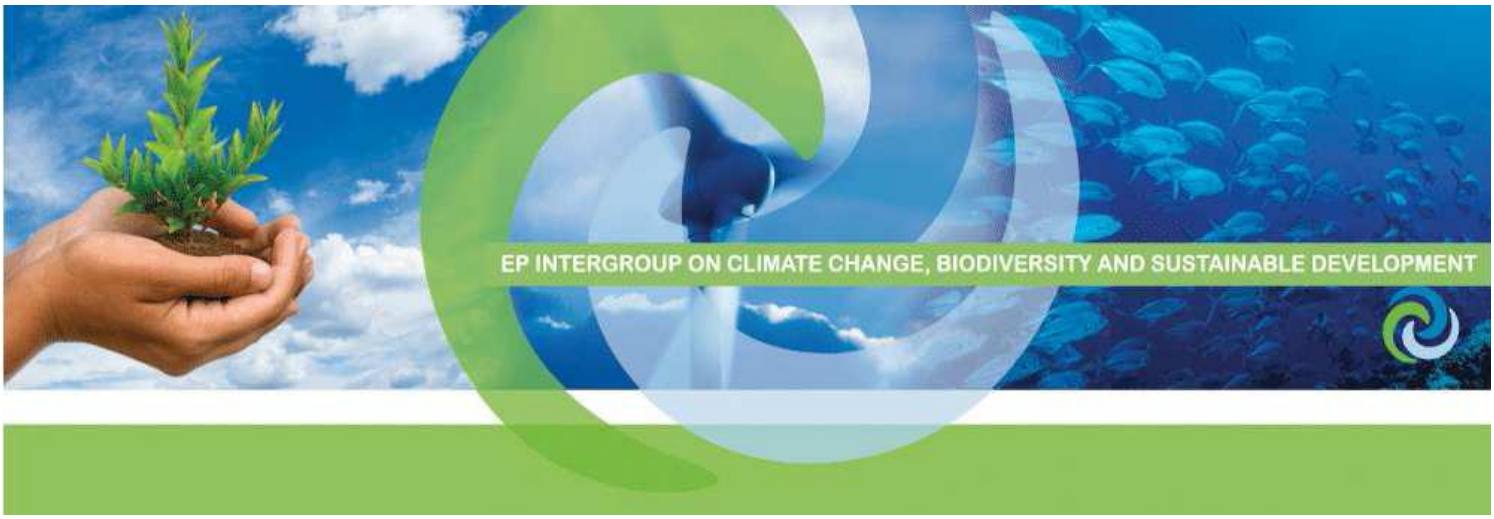


The case study results stressed that almost all local actors wanted to engage in such work and would like to have more easily and freely accessed data. Moreover, it seems that they are rather willing to participate voluntarily in projects such as TESS. They could provide data by mapping species and habitats at the standard of experts but much more extensively, as well as on main occupations and economic activities. The case studies highlighted however some difficulties in getting information, particularly because of a lack of IT education and training, and the fact that local people are not fully aware of the opportunities for activities related to biodiversity.

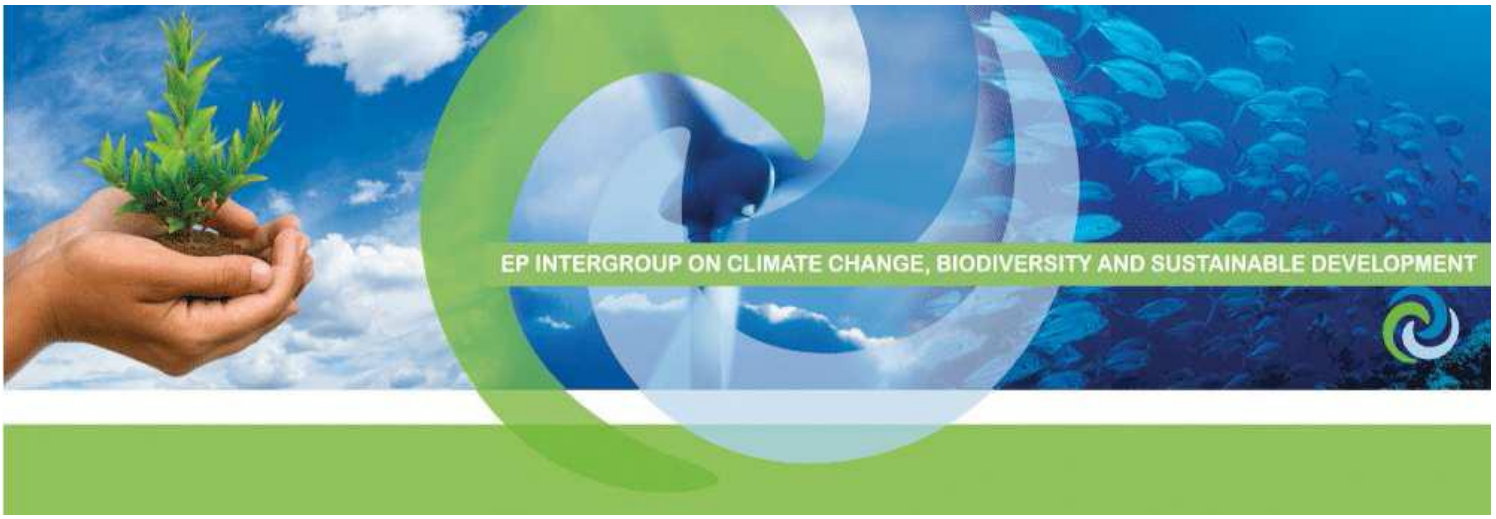
She concluded by saying that knowledge and data shared by local residents could be integrated from the regional and local level into environmental decision making and support sound elaboration of EIAs (Environmental Impact Assessment) and SEA (Strategic Environmental Assessments).

Local case study, Sfântu Gherghe commune, Romania / Danube Delta

Ion Navodaru, Danube Delta National Institute for Research & Development

Mr Navodaru presented the main land use features of Sfântu Gheorghe: river and coastal fishing, reed harvesting, cattle breeding and tourism. He explained that because of the collapse of fish stocks in April 2006, Romania banned sturgeon catching for ten years. As a consequence, costal fishing with giant trap nets was abandoned, which affected the community livelihoods.
The local case study aimed therefore at helping local communities to identify the exploitable natural resources within their area and to develop local products for visiting tourists or open market and to develop a digital map of Sfântu Gheorghe local biodiversity for Common Sea-buckthorn (Hippophae rhamnoides), and Sand Morning Glory (Convulvus persicus). These shrubs could be used as a local asset mainly in tourism, for visitors to taste the local flavours and traditions of the city. Indeed, the Sea-buckthorn fruit and juice of berries can be used in foods, beverages, health and traditional medicine.

Many socio-economic methods have been used for the creation of this map, such as structured interviews with locals based on 3 questionnaires, and the organisation of a workshop and of a focus group with stakeholders from administration, education



and economy backgrounds. For instance, locals were asked if they suffer costs (time or money) from wild species or habitats. This whole process permitted to identify local knowledge and best practice. Beside, weaknesses have been identified and solutions have to be found, particularly to fill the knowledge gap, to enlarge distribution map, to develop technology and business for the Sea-buckthorn, and to make funds available.

He concluded that the major challenge will be to convince the community and stakeholders of the need to develop new opportunities for sustainable use of local ecosystem services to replace the traditional ones.

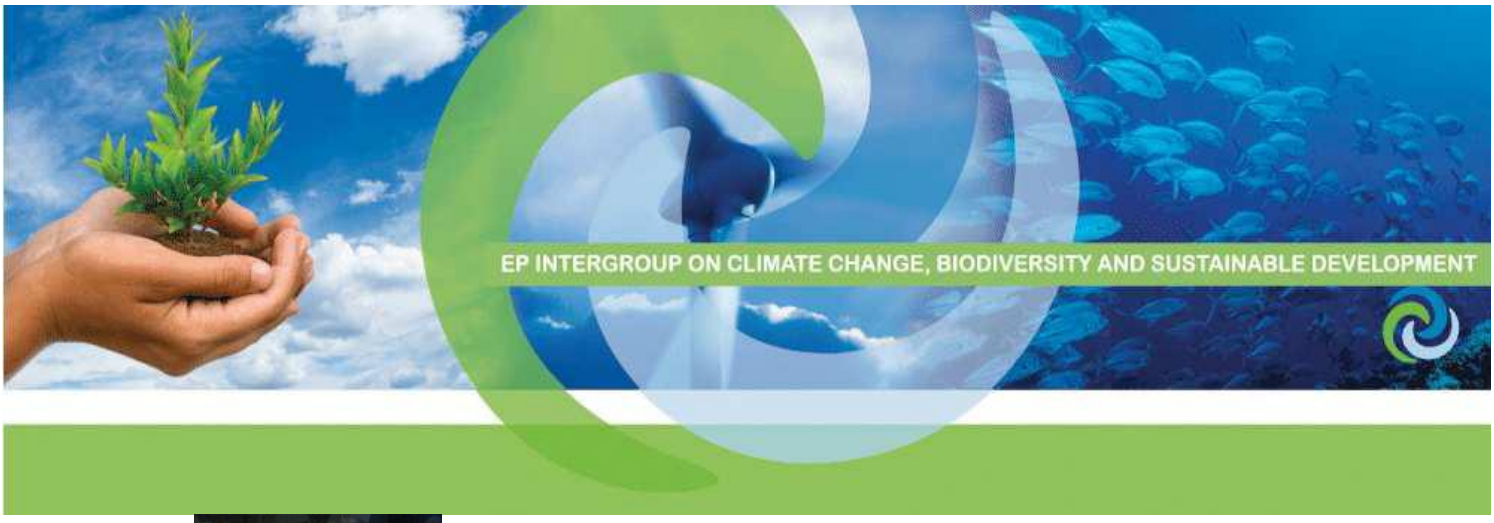
Information supply from modelling

Mari Ivask, Institute of Sustainable Technology at Tallinn University of Technology

Prof. Mari Ivask reported that the TESS database comprises 198 volunteered models that have been selected as potentially suitable for local stakeholders. After this selection, a gap analysis showed first that the existing Crop Management Toolkits cover soil health issues well but lack wider field health issues such as ecosystems around the fields (grassy field margin etc).

Second, a Sustainable Forest Management Toolkit addresses forest health issues well, though mostly in Canada. Moreover, it seems that adaption to the European conditions might be challenging.

Third, there was no comprehensive Recreational Site Management Toolkit yet, and such a toolkit needs to be created. The core models for that might be RBSIM and SODA, she added.
She also remarked that the study showed that 50% of the database models were no longer available, and no more than 6% were deemed usable locally by non-experts.



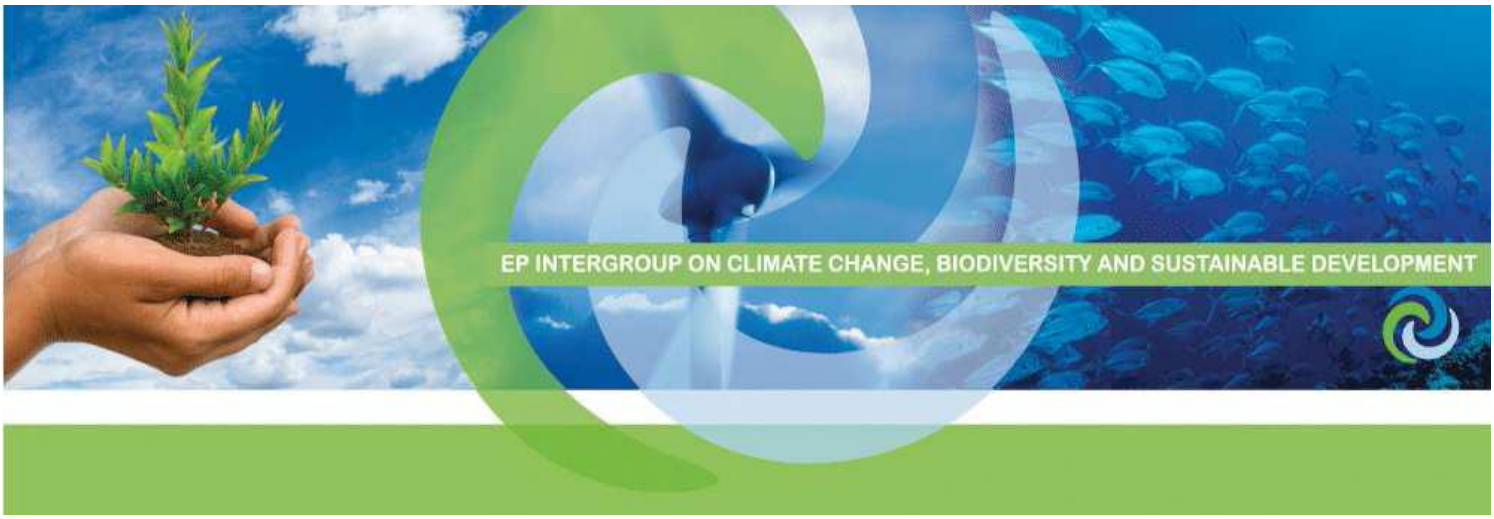
System Design and Pilot Implementation

Prof. Robert Kenward, Anatrack Ltd

Prof. Robert Kenward focused on the work package 6 “Policy + internet “, which comprises the technical design of the TESS project (for mapping, and decision support) and the socio-economic aspects of the tool. He stressed that regarding the technical design, high level requirements were needed, such as inference engine logic, scale, confidentiality, data supplies, ownership and payments etc…

He explained that many partners had contributed Use Case modules for the technical design: a domain network model. He gave the example of a Bayesian Belief Network to explore decisions on hedge planting. He explained that integrated models including many aspects of the proposed design are not new. In 2001 for instance, an Environmental Information System for Planners (EISP) was implemented in England. However, most integrated models had difficulties to identify and attract users and stakeholders, which had for consequence that they were never used. According to him, the TESS project should benefit from a very attractive portal. This portal should be built and funded by asking organisations and individuals what services they would like it to provide and what they are prepared to pay.

Regarding the socio-economic design, Prof. Robert Kenward explained that the main goal is to understand how to deliver to stakeholders their NGOs/consultants, local authorities and higher government levels. A survey has been done by FACE in order to know what the needs of stakeholders are. The survey shows that most stakeholders want habitat mapping. What they do not want however is shopping. Habitat mapping, he said, is the basis for predicting all animal populations and hence biodiversity.

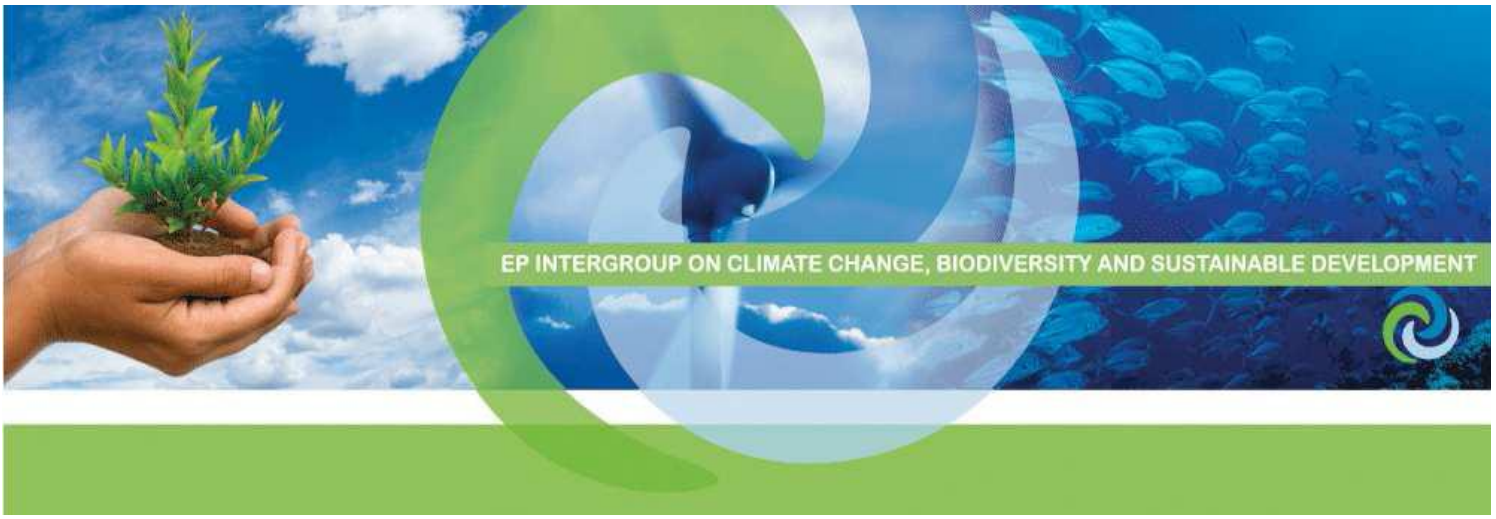


Draft Policy Guidelines

Robin Sharp, European Sustainable Use Specialist Group

Mr Sharp explained that the Malawi Principles of an Ecosystem Approach and the Addis Ababa Principles for Sustainable Use of Biodiversity represented the underlying philosophy of TESS. The first stresses that the ecosystem approach should seek the appropriate balance between, and integration of, conservation and use of biological diversity; and consider all forms of relevant information, including scientific and indigenous and local knowledge, innovations and practices. The second states that adaptive management should be practiced based on: science and traditional and local knowledge; iterative feedback derived from monitoring the use, environmental, socio-economic impacts, and the status of the resource being used: and adjusting management based on timely feedback from the monitoring procedures.

The laboratory for the TESS project, he said, consisted of the 500 million people of Europe: there had been rigorous sampling of 130 communities, in 27 countries.
He then presented a selection of the 18 policy guidelines derived from the TESS project:
1) The SEA (Strategic Environmental Assessment) and EIA (Environmental Impact Assessment) directives should be reconsidered with a view to their integration and formal application at the same level in all member states.
2) Member States should be required to give regular accounts of how their planning and other decision-making systems incorporate the principles of environmental and



sustainability impact assessment in cases which lie outside the scope of formal SEA and EIA.

3) EU institutions should develop environmental cross-compliance requirements so that assessments of significant changes in agricultural and forestry land use and management would be covered by them, rather than by the EIA Directive..

4) More cooperation by Member States with the European Environment Agency would be achieved if data collected in formal assessments was shared with the EEA.

5) Member States and the Commission could encourage the Biodiversity Action Plan model of collaboration between stakeholders for biodiversity restoration to provide regional and local frameworks for information gathering and monitoring.

7) Pan-European surveys on needs for environmental information would be facilitated if Eurostat could provide sampling frames.

9) The relevance of participation in wildlife-related activities EU citizens and the direct and indirect spending associated with these activities should be recognised by policy-makers.

10) Eurostat could be invited to survey spending on and attitudes to wildlife as was done regularly in the USA.

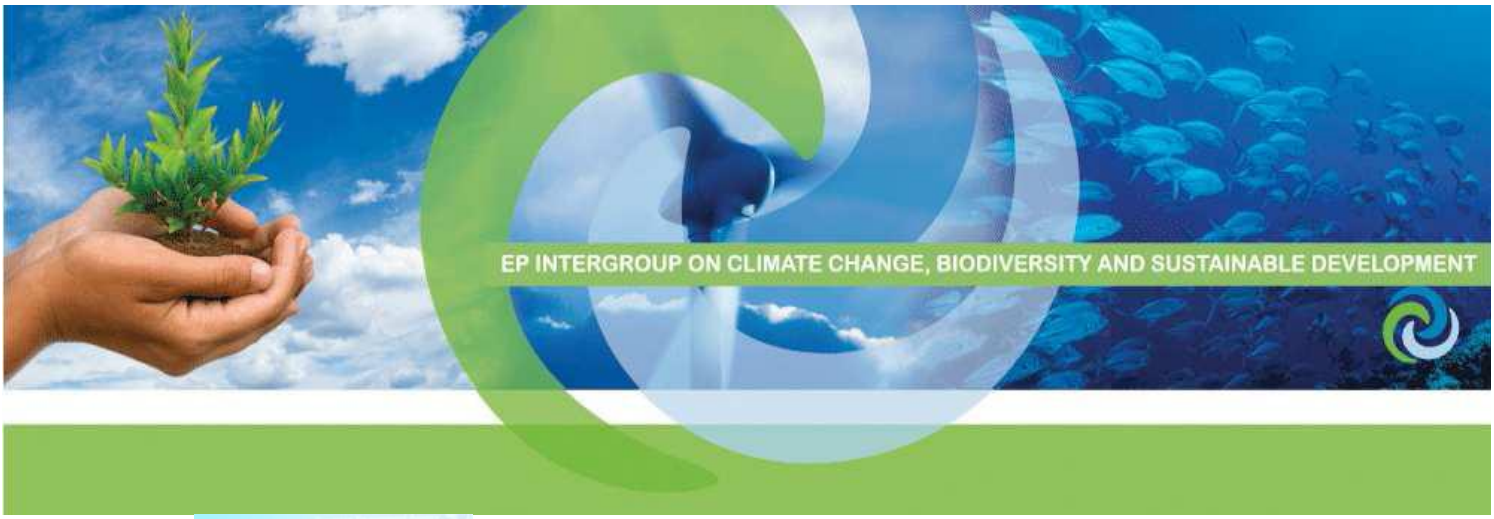
11) Authorities should promote further experiments and training for local people in using digital tablets for mapping biodiversity monitoring, conservation and for other purposes.

12) Policies should take into account the perceptions and attitudes of the people who live closest to wildlife and the countryside.

13) Rapid investigations on land-use changes both inside and outside protected areas could be assisted by local mapping for data collection as in the TESS case studies.

17) Developing internet-based advice and support for land managers will take substantial resources and time, but the case for it is strong.

18) Support should meanwhile be given to the portal developed from TESS for ideas and knowledge exchange via publicity aimed at land-users from governments and national associations, data and best practice case study material from researchers and environmental institutions and, where feasible, appropriate finance from any quarter.



From environmental assessment to local decisions and citizen science

Prof. Jacqueline McGlade, Executive Director, European Environmental Agency

Prof. McGlade highlighted the importance of local citizens for conserving the environment. She believes that engaging local people in collecting and sharing information is essential to environmental governance. This is why she is supporting projects such as TESS.
She added that the EEA is already working on information sharing with industry through its European Pollutant Release and Transfer Register. The programme Eye on Earth is also a good tool to get information on air and water quality in Europe, and for citizens to add monitoring data with their own assessments. The programme NatureWatch provides data on invasive species in Europe based on citizen science.

Moreover, she believes that there are opportunities to improve collaboration between farmers and hunters. She then presented BISE (Biodiversity Information System for Europe), which enables the sharing of data for environment decision-making. Citizen biodiversity information networks can make an important contribution to BISE.

She concluded by saying that many projects have big outputs but then get lost. In order to avoid such situation, it is important for TESS to set in the next few weeks the place where its network will be implemented. “The EEA would be happy to become the home for TESS”, she said.

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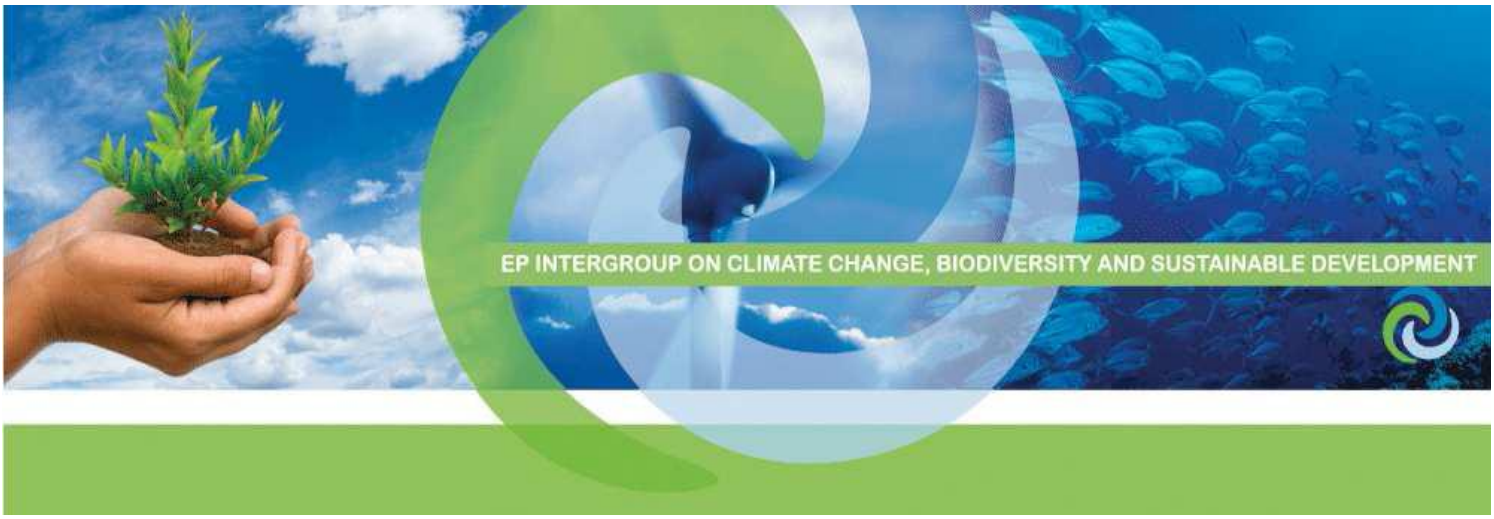


From environmental impact assessment to local decisions

Morton Thorøe, Confederation of European Private Forest Owners

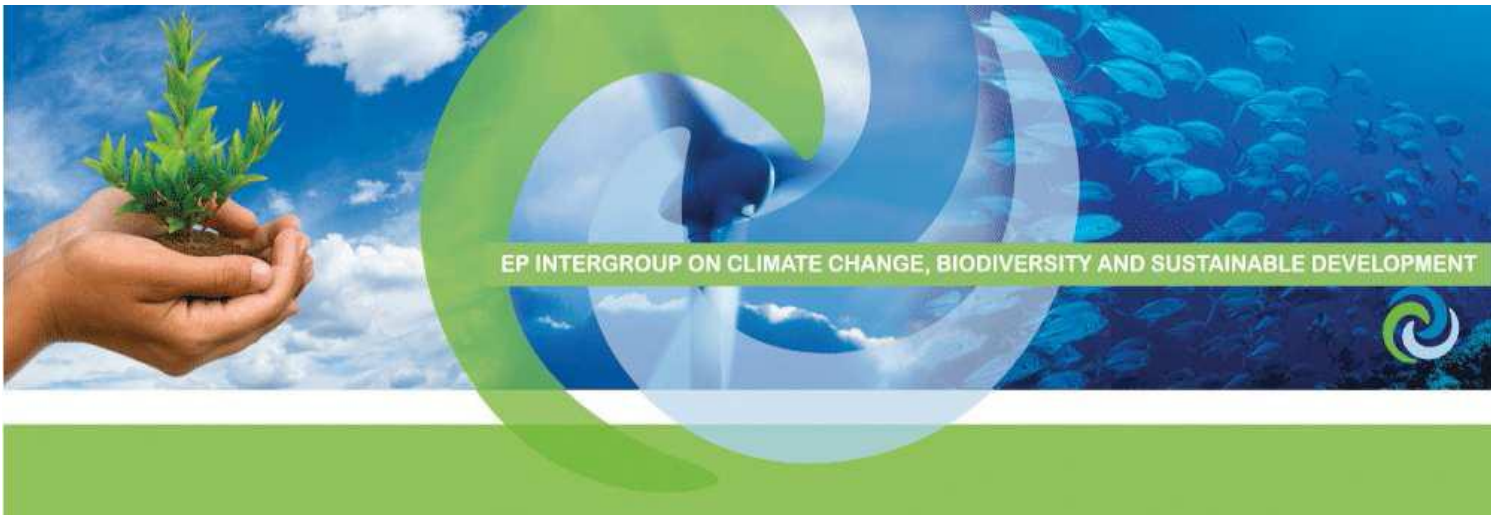
Mr Thorøe first explained that CEPF represents the interests of the 16 million family forest owners from 23 EU countries. All local decisions that have to be taken are taken on site, he said.

According to him, a sustainable forest management requires balancing economic, social and ecological requirements and due respect of the diversity across Europe.
He remarked the approach of TESS would make the CEPF the demanders and the EEA the supplier in an information market. He thinks that such a model can work only if the forest owners have confidence in the system; if the system is easy to use; if there is transparency in the flow of information; if the information is credible and verifiable; if the political objectives are clearly defined and if the solutions are easily accessible and low-tech.

He concluded that scientific and planning tools must be supplemented by other ways of exchanging information, and that regarding forest, a certification is already a well established tool that facilitates exchange of larges amounts of information – from the forest floor to the consumers and vice versa.

Debate

Issues were raised regarding the capacity of local land users to collect high quality data. There were also some questions regarding the lack of IT training and knowledge and the barriers that this presented to the successful dissemination of



TESS. The key points to come out of the open discussion session were the need for: credible data, the need for effective promotion of the portal among land users and the need to ensure that users are motivated to be involved in the project and that they will use the system.

MEP Paul Rubig (Austria, EPP) emphasized the need for a decision-making system that provides better support for both policy makers and local communities.

Conclusions by **Prof. Robert Kenward**

Prof. Robert Kenward presented an overview of the project and reminded the audience of the complexity and challenges of the TESS project. « Local stakeholders manage biodiversity and are therefore the solution and not the problem », he said.

Prof. Robert Kenward drew the following conclusions:

- TESS conducted extensive surveys assessing the governance and information requirements for policy making,
- High levels of interest and competence in citizen based science, and a high engagement in activities that could inform mapping projects,
- There is a current lack of useful and accessible software that could be used to support stakeholder decision making,
- A survey conducted during TESS informed the development of an online portal constructed to provide stakeholder decision making support and to act as a further stakeholder survey. The new survey will assess the efficiency of the portal and allow any necessary changes to be made.
- The development of policy recommendations were based on the findings of the project and support the implementation of a TESS system,
- Finally, that TESS needs to work in closer collaboration with stakeholders and the EEA to provide good environmental governance that encourages and empowers stakeholders.

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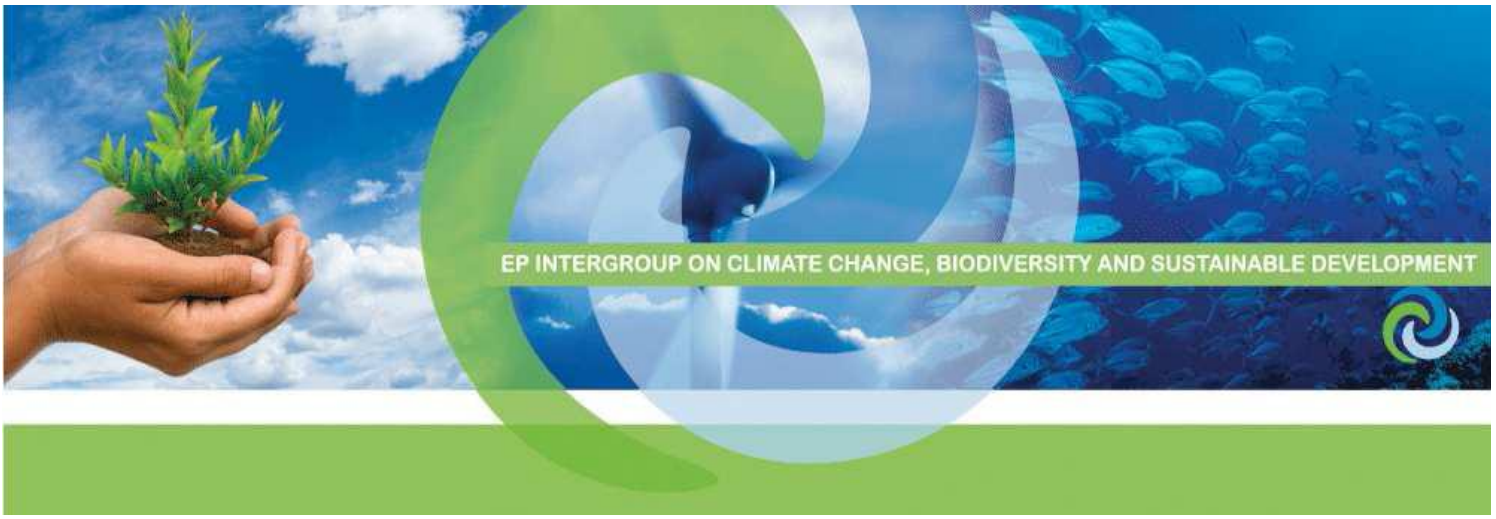

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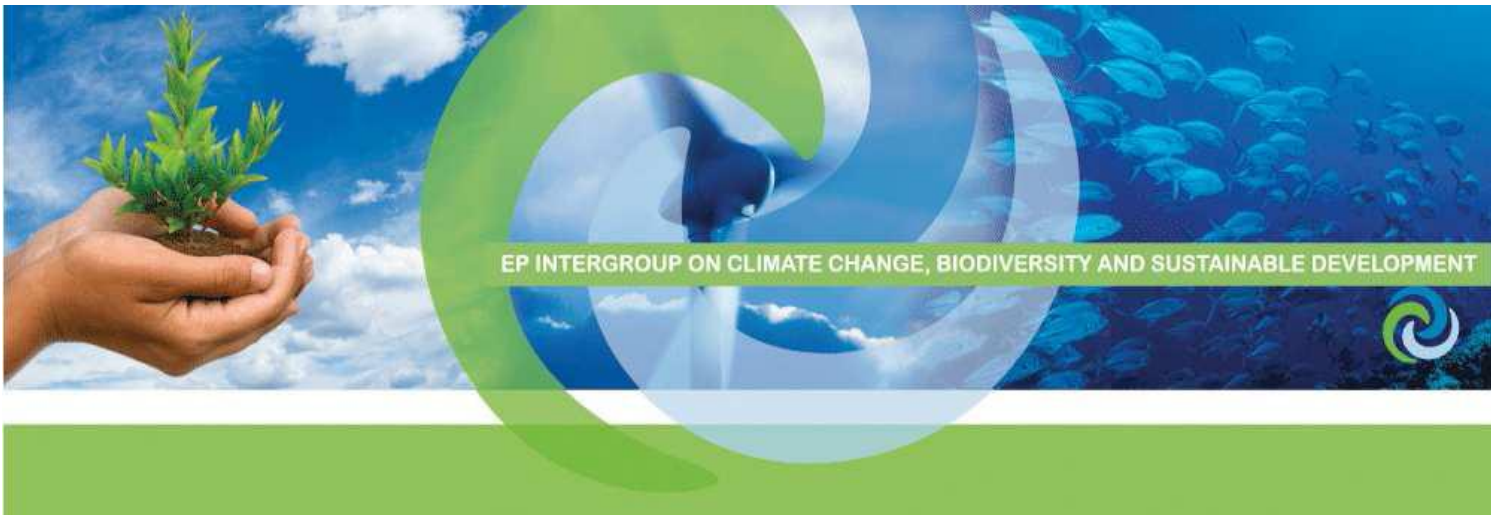

List of participants

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Grgas Brus	Katarina	DG ENV
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Ehsanul Haque	Kazi	Embassy of Bangladesh
Lalsomde	Emmanuel	Embassy of Burkina Faso
Pinjo	Mirza	Mission of Bosnia and Herzegovina to the European Union
Rajaon	Andria	Embassy of Madagascar
Reyes	Altagracia	Embassy of République Dominicaine
Tuala Falani	Chan Tung	Embassy of Samoa
Stakeholders (Private sector, NGOs, media, other)		
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Arampatzis	Stratos	Tero Ltd.

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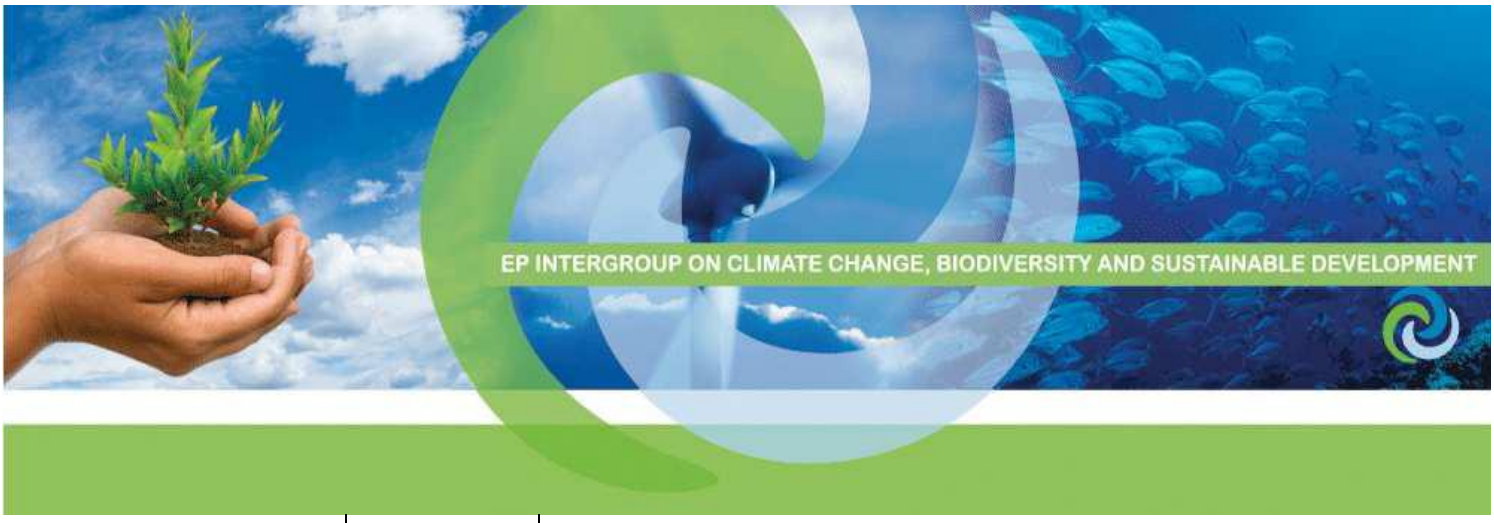

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Galan	Rosario	IUCN
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Geijzendorffer	Ilse	WUR Alterra
Griffin	Alexander	FACE
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Navodaru	Ion	Danube Delta National Institute for Research & Development
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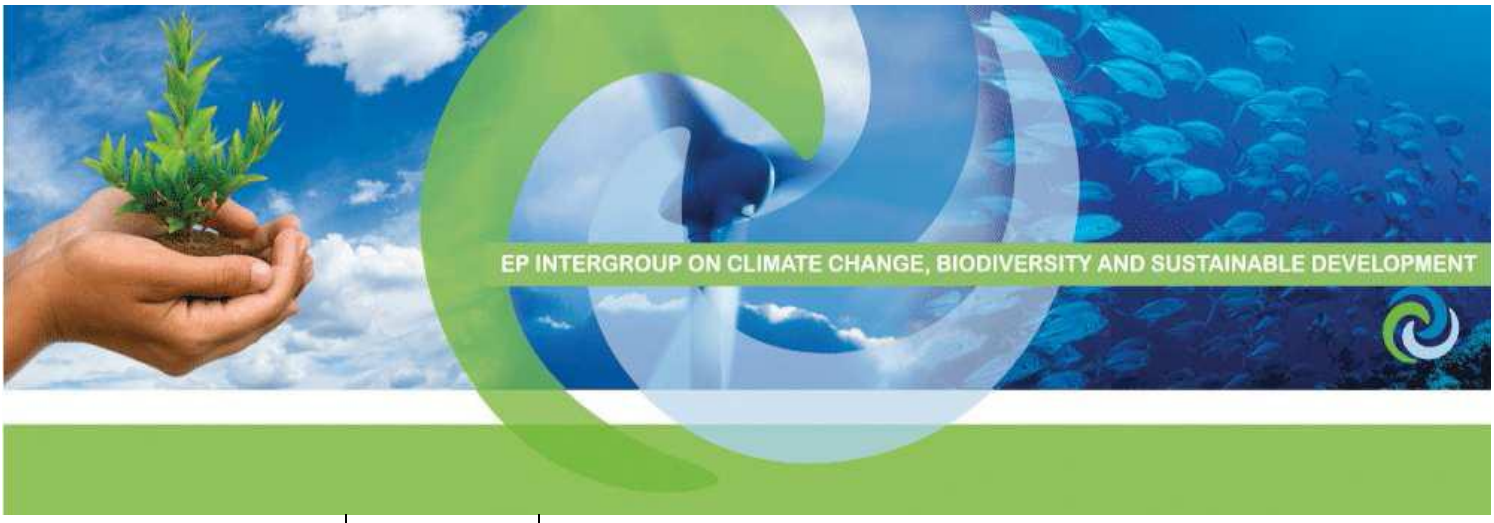

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Riviere	Josiane	European Environment Agency
Scallan	David	National University of Ireland Galway
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Thank you very much for your participation and interest!

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