- Submission by the EU and its Member States -

CBD NOTIFICATION No. 2015-045

"Implications of the findings of GBO-4 and key scientific and technical needs related to the implementation of the Strategic Plan for Biodiversity 2011-2020"

Background

In its decision XII/1, paragraph 18, the Conference of the Parties (COP) to the Convention on Biological Diversity (CBD) requested the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) to review the main implications and findings of the fourth edition of the *Global Biodiversity Outlook (*GBO-4) and its underlying technical reports as well as additional information from fifth national reports and other submissions with a view to identifying further opportunities and additional key actions, including, among others, the contributions of collective actions of indigenous and local communities for the achievement of the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets, and other actions for the targets where there has been the least progress at the global level, for consideration by the COP at its thirteenth meeting.

With this notification the Secretariat has requested input from the Parties with regard to the review of progress in the implementation of the Strategic Plan for Biodiversity and the achievement of the Aichi Biodiversity Targets; and on actions that Parties have undertaken to address the key scientific and technical needs related to the implementation of the Strategic Plan for Biodiversity 2011-2020, as identified by SBSTTA at its seventeenth meeting, and contained in annex II to decision XII/1 paragraph 14. Information received will be taken into account in the preparation for the pre-session documents for the nineteenth meeting of SBSTTA and the first meeting of the Subsidiary Body for Implementation, as appropriate.

The deadline for replies is currently set for the 22 June 2015.

The EU and its Member States Submission

1. Introduction

The European Union (EU) and its Member States are pleased to contribute to Notification No. 2015-045 inviting Parties to provide information on the implications of the findings of GBO-4 and key scientific and technical needs related to the implementation of the Strategic Plan for Biodiversity 2011-2020, and to provide suggestions on ways and means to improve the review of the Strategic Plan for Biodiversity 2011-2020 with a view to the development of a proposal for discussion at the upcoming 19th meeting of the SBSTTA, as requested by the Parties through Decision XII/1.

The EU and its Member States believe that there is scope for improving the review of progress towards the goals of the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets, and the reporting by Parties on the implementation of the Convention, taking into account the lesson learnt from the preparation and use of the fifth national reports, and GBO-4. These improvements should be taken into account by the SCBD when proposing guidelines for the sixth National Reports.

2. Main considerations and Issues

Against this background, we look forward to receiving pre-session documents in due time and to a constructive discussion with other Parties on this subject. To this end, we would like to put forward the following initial elements:

2.1 Implications of the findings of GBO-4 (agenda item 3.1 of SBSTTA-19)

First of all, the EU and its Member States welcome the evidence presented in the fourth edition of the Global Biodiversity Outlook, which provides a global overview of progress towards the Aichi Biodiversity Targets. The report showed that while some progress has been made under most Targets, it has been made at an insufficient rate and is not sufficient to attain the Targets set for 2020 unless we increase our efforts and further actions are taken across most Targets. For the longer term, GBO-4 demonstrated that there are plausible pathways to achieve the 2050 vision of stopping biodiversity loss, in conjunction with key human development goals, and keeping global warming below 2°C through the

implementation of a mix of global technology, decentralised solutions, and consumption changes.

It is now important to use this evidence and complement it with additional information coming from Parties to provide further guidance for Parties towards implementation of the Strategic Plan 2011-2020 at COP 13, and ensure enhanced progress under all Targets.

The scenarios analysis in GBO-4 will be applied to the EU and inform a debate on ways and means to implement a mix of development pathways including global technology, decentralised solutions, and consumption changes. To this end, the EU is undertaking work to deliver information on the predicted trends and progress towards halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020 and to contribute to enhanced implementation of the Strategic Plan for Biodiversity 2011-2020.

2.2 Key scientific and technical needs related to implementation of the Strategic Plan 2011-2010 (3.2 SBSTTA-19)

The EU and its Member States support the key scientific and technical needs related to the implementation of the Strategic Plan for Biodiversity 2011-2020, as identified by SBSTTA 17.

Progress has been made in improving the knowledge and evidence base for the implementation of the Convention on Biological Diversity. In the EU, streamlined reporting under the Nature Directives and the mapping and assessment of ecosystems and their services (MAES) have been instrumental in generating a conceptual framework, scaling up and sharing activities at national and regional scale. A solid community of practice is established across Member States. Indicators, data and assessments are fully documented and accessible on the Biodiversity Information System for Europe (BISE) web portal.

However, much remains to be done, in particular in the marine environment where the status of most marine habitats and species is still unknown. Investment is needed to fill the research and knowledge gaps concerning the status of species and habitats, the contribution of the Natura 2000 network to conservation status, the assessment of the health and condition of ecosystems, as well as the links to ecosystem services, and the role of biodiversity as key components for resilient ecosystems. The integration and open access of

biodiversity monitoring and reporting data into relevant EU legislation (including related to agriculture, fisheries, and regional policy) also needs to be further improved. This needs to be a priority for all knowledge partners for the remainder of the implementation period.

The EU's Seventh Framework Programme for Research (FP7) currently funds the EU BON 'Building the European Biodiversity Observation Network' project[1] from 2013 to 2017 to build a substantial part of the Group on Earth Observation's Biodiversity Observation Network (GEO BON) and enhance processes of biodiversity data collation, analysis and provisioning to stakeholders. The EU research programme Horizon 2020 is also contributing to meeting identified knowledge needs and supporting policy development, including through integrated assessments and science-policy interfaces, and a particular focus on innovative nature-based solutions. We would like to note BiodivERsA[2] network of 31 research-funding agencies across 18 European countries that supports and promotes excellence in research that offers innovative opportunities for the conservation and sustainable management of biodiversity. An annex of the present submission contains an indicative list of research projects focusing specifically on biodiversity as ecosystem services.

The Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) has an important role to play in mobilising and building capacity in the scientific community, to catalyse the generation on new scientific knowledge, and to apply that knowledge in developing policy support tools and undertaking assessments at regional and global scales and on thematic topics. The EU and its Member States acknowledge the contribution of the IPBES work programme to support the implementation of the Strategic Plan for Biodiversity 2011-2020, including the regional assessment to be undertaken for Europe and Central Asia. Continued collaboration at national, regional and global scales is needed to maximise the synergies between CBD and IPBES and avoid duplication of effort. For instance we would like to promote the assessment and potential use of the Aichi Biodiversity Target indicators for IPBES and other MEAs before developing new ones. Building on the work of the Biodiversity Indicators Partnership will facilitate IPBES

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[1] http://www.eubon.eu/

[2] http://www.biodiversa.org/

assessments, ensure coherence between IPBES, CBD and other MEAs, and ensure the spatial scalability of IPBES assessments.

2.3 Reporting and Information Tools (3.3 SBSTTA 19)

The EU and its Member States believe that reporting and the use of information tools represent potential areas for improvement of the processes under the Convention and its Protocols. In this respect, the EU and its Member States call on the Secretariat to prepare voluntary guidelines for the sixth national reports, for discussion at the upcoming 19th meeting of SBSTTA. These guidelines should allow for short and targeted reports, complementary to the information already displayed on information tools, such as the CBD CHM, the CBD website or national websites. Any new data portal should be developed so as to be fully compatible with both the reporting guidelines and the CHM.

The EU and its Member States, noting the multiplication of reporting tools and informatics platforms across different MEAs, strongly support the improvement and streamlining of reporting and would like to receive more feedback on the recent developments undertaken by the Secretariat in relation to online reporting, which is closely linked to the role of the respective clearing houses of the Convention and its Protocols. Furthermore, we would also like to highlight that this is an important area for enhancing synergies with other biodiversity-related MEAs (the Strategic Plan and Aichi targets offer a unique opportunity for this), with the other Rio Conventions and other relevant UN bodies such as the Commission on Genetic Resources for Food and Agriculture (CGRFA) and the International Treaty on Plant Genetic Resources (ITPRGFA).

For years, the EU and its Member States have been supporting the development of a Clearing House Mechanism (CHM) for the Convention and the European Environment Agency (EEA) is cooperating with the Secretariat to actively contribute to its improvement and development within Europe. It is therefore essential for the EU and its Member States that the CBD CHM and the two specialised Clearing-Houses under the Protocols remain central platforms for uploading, sharing and retrieving information necessary for implementing the convention and its protocols. We would therefore call for more information on the way the new data portals that are currently being developed by the

Secretariat can be integrated into the CHM (cf. decision XI/1). Parties should be involved in these developments through the National Focal Points and CHM officers.

While the EU and its Member States can understand that there may be a need for having different user interfaces to retrieve information from the different applications for specific data (e.g. specific role of the ABS CH), generic information like legislation, national authorities, and other can be common across the different platforms (like for instance envisaged by the UN Information portal on MEAs) and also be directly searchable from the main site and not from each specific portal (e.g. often national legislation/measures that have some relevance to ABS also refer to Art. 8(j), protected areas, etc.).

With regard to the new CBD online reporting tool developed for the assessment of progress on the Aichi Targets, there is so far no possibility for Parties to include national sub targets/objectives and indicators from NBSAPs. In overall, the EU and its Member States would like to cooperate with the Secretariat and other interested Parties, to further develop the system and to facilitate its interoperability with other reporting tools such as the one developed by the European Environment Agency. As indicated in our answer to notification 2014-138, one of the goals of such developments should be to reduce the reporting burden for Parties through a "modular" approach. Such an approach would allow for data/information which have been reported once (in the context of a thematic convention – such as CMS, Ramsar or other, – or of a database managed by UNEP-WCMC) to be retrieved and used in the context of the CBD reporting, without Parties having to submit it another time.

Therefore, the EU and its Member States would welcome further information on the latest developments of the work undertaken by UNEP-WCMC with MEA Secretariats (via the Biodiversity Liaison Group and the MEA Information and Knowledge Management Initiative), and individual Parties, on streamlining of reporting process, creating efficiencies, improving reporting rates and ultimately leading to better assessment and management of natural capital.

2.4 Indicators (item 3.4 SBSTTA-19)

The EU and its Member States would like to thank Switzerland for supporting the organisation of an Ad Hoc Expert Group (AHTEG) in 2015 to review the global set of indicators based on an in-depth review of global indicators used in GBO-4 as well as indicators used by Parties in their fifth national reports on progress towards the Aichi biodiversity targets.

The EU is funding a project to be undertaken by UNEP-WCMC from 2015 to 2017 to enable data-informed decision-making by replicating successful sub-global indicator initiatives to fill global indicator gaps. It is a direct response to CBD Decision X/3 on implementation of the Strategic Plan for Biodiversity 2011-2020 by supporting indicator development at all scales. At global level, the project will deliver new indicators to fill priority gaps and support future assessments of the Aichi Biodiversity Targets. Production of national level indicators and their subsequent reporting will be supported through the delivery of capacity building activities and resources.

By the end of 2015, the EU will get analyses of trends in the EU Biodiversity indicators to support the review on progress in implementing the actions under the EU Biodiversity Strategy to 2020 and in reaching its Targets; a technical report showing past to present trends and statistical extrapolation graphs to 2020, including a target dashboard, which would provide a visual summary of progress towards the EU biodiversity targets, possibly broken down into their components/actions and supporting data and metadata, and explanatory text; identified gaps in indicators and knowledge to be filled by 2020 to document achievement of the EU Biodiversity Headline Targets and its 2050 Vision. This work will also support the ongoing review of the Strategic Plan 2011-2020 to be discussed at COP 13.

3. Concluding remarks

The EU and its Member states remain strongly committed to implement the Strategic Plan 2011-2020 and reach the Aichi Targets. The EU Biodiversity Strategy to 2020 adopted in May 2011 laid down the framework for EU action over the next ten years in order to meet the 2020 biodiversity headline target set by EU leaders in March 2010, as a response to the adoption of the global Strategic Plan for Biodiversity 2011-2020. A mid-term review of the

EU Biodiversity Strategy is scheduled in 2015. It is an opportunity to take stock of progress and to identify gaps in implementation, in order to inform decision-makers of areas in which increased efforts would be needed to meet the EU biodiversity commitments by 2020. The results of the mid-term review will also support future EU work under the Convention on Biological Diversity and will provide input into linking the post-2015 Sustainable Development Goals and targets to EU level and global actions.

The EU and its Member States hope that the information provided will help to strengthen the work of the Secretariat on the preparation for the pre-session documents for the nineteenth meeting of SBSTTA and the first meeting of the Subsidiary Body for Implementation. We look forward to participating constructively in the follow-up discussions on the matter.

Annex

Indicative list of research projects focusing specifically on biodiversity as ecosystem services funded under EU's seventh Framework Programme for Research (FP7) and EU research programme Horizon 2020, as well as projects from former EU Research Framework programmes FP5 and FP6

BIOTA Cluster[3]

Biodiversity rests on a vastly complex nexus of social, economic, cultural, and ecological dimensions that embrace huge scales in terms of space and time. The threat to biodiversity's richness is global but many of its pressures and drivers are local, which means that potential solutions often require detailed local or regional knowledge.

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[3] http://ec.europa.eu/research/environment/newsanddoc/article_3906_en.htm

This scientific and intellectual challenge is borne out by the wide range of research projects in the Commission's last two Framework Programmes. Together FP5 and FP6 have devoted € 170 million to research regarding biodiversity and ecosystems.

Research carried out within the BIOTA cluster is the **European scientific response to the Convention on Biological Diversity and the EU 2020 Biodiversity Strategy**, and aims to determine and promote strategic approaches to the conservation of biodiversity and the management of ecosystem services in Europe.

Projects[4] in the BIOTA Cluster:

- Assess and predict the impact of major drivers of biodiversity;

- Are developing tools, such as biodiversity indicators, to promote the conservation and sustainable use of biodiversity;

- Seek to identify and resolve conflicts between society, economy and biodiversity;

- Support the conservation of biodiversity by creating databases on the taxonomy, biology and ecology of Europe's plants and animals;

- Strengthen scientific and technological excellence on biodiversity research through the durable integration of research capacities across Europe.

All projects are co-funded by the European Community, most of them under the FP7 Biodiversity values, sustainable use and livelihoods, FP6 Global Change and Ecosystems and under the FP5 Global Change, Climate and Biodiversity Key Action of the Energy, Environment and Sustainable Development Programme.

European Research Area-nets seek better structuring and promoting collaboration

- BiodivERsA is a network of national funding organizations promoting pan-European research that offers innovative opportunities for the conservation and sustainable management of biodiversity. It was initially funded under FP7 ERA-NET scheme and from 2015 under HORIZON 2020 ERA-Net COFUND scheme.

- NETBIOME and NETBIOME-CSA are a projects funded by the EU FP7 CSA Scheme. NetBiome-CSA will extend and strengthen research partnerships and cooperation for

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4 https://wiki.ceh.ac.uk/display/biota/Home

smart and sustainable management of tropical and subtropical biodiversity in outermost regions and overseas countries and territories.

List of projects under 7th Framework Programme for Research 2007-13 relevant for biodiversity[5]:

- BESAFE (Biodiversity and Ecosystem Services: Arguments for our Future Environment)

    http://www.besafe-project.net/

- EU BON (Building the European Biodiversity Observation Network)

    http://www.eubon.eu/

- FUNDIVEUROPE (Functional significance of forest biodiversity)

    http://www.fundiveurope.eu/

- GLOBAQUA (Managing the effects of multiple stressors on aquatic ecosystems under water scarcity)

    http://www.globaqua-project.eu/

- KNEU (Developing a Knowledge Network for EUropean expertise on biodiversity and ecosystem services)

    http://www.biodiversityknowledge.eu/

- KNOWSEAS (Knowledge-based sustainable Management for Europe's seas)

    http://www.knowseas.com/

- LIBERATION (Linking farmland Biodiversity to Ecosystem services for effective ecological intensification)

    http://www.fp7liberation.eu/Participants

- MARS (Managing Aquatic ecosystems and water resources under multiple stress)

    http://www.mars-project.eu/

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[5] Not yet included in the BIOTA cluster.

- MIDAS (Managing Impacts of Deep seA reSource exploitation)

  http://www.eu-midas.net/

- NEWFOREX (New Ways to Value and Market Forest Externalities)

  http://www.newforex.org/

- OpenNESS (Operationalisation of Natural Capital and Ecosystem Services)

  http://www.openness-project.eu/

- Policymix (Assessing the role of economic instruments in policy mixes for biodiversity conservation and ecosystem services provision)

  http://policymix.nina.no/

- QUESSA (Quantification of ecological services for sustainable agriculture)

  http://www.quessa.eu/

- TURAS (Transitioning towards Urban Resilience and Sustainability)

  http://www.turas-cities.org/

- VOLANTE (Visions of Land Use Transitions in Europa)

  http://www.volante-project.eu/

- LAGOONS (Integrated water resources and coastal zone management in European lagoons in the context of climate change)

  http://lagoons.biologiaatua.net/

- HERCULES (Sustainable Futures for Europe's Heritage in Cultural landscapes)

  http://www.hercules-landscapes.eu

- STAR-FLOOD (Towards more resilient flood risk governance)

  http://www.starflood.eu/

- MedSeA (Mediterranean Sea Acidification in a changing climate)

  http://medsea-project.eu

Outlook on HORIZON 2020 research programme 2014-2020

Under Horizon 2020, actions will be launched to support earth observation and GEOSS (Global Earth Observation System of Systems), in particular (including filling data gaps for ecosystems, oceans and developing further citizens' observatories).

- EU Horizon 2020 Coordination and support action ESMERALDA – Enhancing ecosystem sERvices mApping for poLicy and Decision mAking.

- "An EU support mechanism for evidence-based policy on biodiversity and ecosystem services" under the overall topic: "SC5-10-2015: Coordinating and supporting research and innovation for the management of natural resources", published in 2015.

List of BIOTA cluster projects

OPERAs

OPERAs (Operational Potential of Ecosystems Research Applications) aims to improve understanding of how applying ecosystem services and natural capital concepts in managing ecosystems contributes to human well-being in different social-ecological systems in inland and coastal zones, in rural and urban areas, related to different ecosystems including forests and fresh water resources.

PERSEUS

Policy-orientated marine Environmental Research for the Southern European Seas (PERSEUS) is a research project that assesses the dual impact of human activity and natural pressures on the Mediterranean and Black Seas. PERSEUS merges natural and socio-economic sciences to predict the long-term effects of these pressures on marine ecosystems. The project aims to design an effective and innovative research governance framework, which will provide the basis for policymakers to turn back the tide on

VECTORS

VECTORS aims to improve our understanding of how environmental and man-made factors are impacting marine ecosystems now and how they will do so in the future. The project will also examine how these changes will affect the range of goods and services provided by

the oceans, the ensuing socio-economic impacts and some of the measures that could be developed to mitigate or adapt to these changes.

SPIRAL

The overall aim of SPIRAL is to enhance the connectivity between biodiversity research and policy making in order to improve the conservation and sustainable use of biodiversity.

ALTER-Net

ALTER-Net's main objective is to achieve lasting integration amongst its 24 partner institutes, and others, all of whom are involved in biodiversity research, monitoring and/or communication. By the end of the project, ALTER-Net should have brought about sufficient change to the way these organisations work, so that they operate in a far more integrated fashion than before the start of the project.

ROBIN

ROBIN is an EU-funded project running for four years from November 2011. It will provide information for policy, together with resource use options, under scenarios of socio-economic and climate change.

CASCADE

CASCADE: (CAtastrophic Shifts in drylands: how CAn we prevent ecosystem DEgradation?) project will investigate and analyse a range of dryland ecosystems in southern Europe to obtain a better understanding of sudden shifts in drylands that may lead to major losses in biodiversity and concomitant ecosystem services.

BIOMOT

Can economic methods to assess the value of biodiversity be improved such that they reach out to what really motivates action? Can alternative approaches be developed that lie closer to what connects people to nature and can appeal to their actions instead of only to their feelings?

STEP

The project Status and Trends in European Pollinators (STEP) documents the nature and extent of these declines, examines functional traits associated with particular risk, develops

a Red List of some European pollinator groups, in particular bees and lays the groundwork for future pollinator monitoring programmes.

SCALES

SCALES seeks ways to build the issue of scale into policy and decision-making and biodiversity management. It advances our knowledge of how anthropogenic and natural processes interact across scales and affect biodiversity.

PALMS

The general scientific objectives of PALMS, supported by the European Commission under FP7 Use of natural resources: the impact on biodiversity, ecosystem, goods and services, – are to study the effect of extraction and trade of palms on forest in the western Amazon, the Andes and the Pacific lowlands.

HighArcs

HighARCS has completed a detailed multidisciplinary situation analysis of highland aquatic resources, focused on values, livelihoods, conservation issues and wise-use options at five sites in Asia.

REFRESH

REFRESH is concerned with the development of a system that will enable water managers to design cost-effective restoration programmes for freshwater ecosystems at the local and catchment scales that account for the expected future impacts of climate change and land-use change in the context of the WFD and Habitats Directive.

HERMIONE

From the polar waters of the Arctic to the warm seas of the Mediterranean, Europe has almost 90,000 km of coastline. Underneath the waves our seas are home to some of the most spectacular ecosystems on Earth. Ecosystems such as cold-water coral reefs and hydrothermal vents support a huge diversity of life that is both beautiful and alien, but also vulnerable to the impacts of climate change and human activities. The HERMIONE project is focused on investigating these and other ecosystems, including submarine canyons, seamounts, cold seeps, open slopes and deep basins. Scientists from a range of disciplines are researching their natural dynamics, distribution, and how they interconnect. We also

want to find out how they contribute to the goods and services we rely on, and how they are affected by natural and anthropogenic change.

CoralFISH

CoralFISH is assessing the interaction between corals, fish and fisheries, in order to develop monitoring and predictive modelling tools for ecosystem based management in the deep waters of Europe and beyond.

ConGRESS

ConGRESS (Conservation Genetic Resources for Effective Species Survival) is an EU consortium dedicated to transferring current knowledge in conservation genetics and in the analysis of genetic variation data to management professionals and policy makers.

BioFresh

A major challenge is to complement the existing databases on freshwater biodiversity and distribution patterns, along with strict quality controls, to consent the continuous integration of new data. Within BioFresh, these data will be linked with geographical and socio-economic information. By developing just such a universally accessible information platform, BioFresh will foster our understanding of present freshwater biodiversity and changes expected for the future.

BiodivERsA2

By networking 21 funding agencies from 15 countries, BiodivERsA aims to strengthen the European Research Area on biodiversity. Building on the experience of the ERA-Net BiodivERsA, but with a wider, more balanced network, BiodivERsA will promote a strategy for biodiversity research, in partnership with other players in the field, and will organize joint funding to better integrate biodiversity science.

BioScore

BioScore offers you a European biodiversity impact assessment tool. The tool contains indicator values on the ecological preferences of more than 1000 species of birds, mammals, amphibians, reptiles, fish, butterflies, dragonflies, aquatic macro-invertebrates and vascular plants. These values are linked to policy-related pressures and environmental variables.

BioScene

The aim of BioScene was to investigate the implications of agricultural restructuring and decline for biodiversity conservation in Europe's mountain areas. The target was to provide practical outputs enhancing implementation of Natura 2000 and the European Biodiversity strategy through integration of agri-environmental, biodiversity conservation and rural development policy.

BioPlatform

BioPlatform – a network of scientists and policy makers that aimed at improving the effectiveness and relevance of European biodiversity research, fulfilling functions that provide significant components of a European Research Area.

BIOMAN

The BIOMAN project looked at how biodiversity in shallow lakes, a habitat threatened throughout Europe, is affected by environmental conditions and human impacts. We wanted to develop an index that could track how biodiversity and nature value of shallow lakes respond to management.

BioHab

The key achievement of the BioHab project was the development of a standardised field recording system for Europe, involving about 100 habitat categories, that transcends the need for specialist knowledge. It provided valid, statistical estimates of habitats and linked these with other habitat classifications and biodiversity.

BIOFORUM

The purpose of the BIOFORUM project was to reduce the conflict between the conservation of biodiversity and economic development

BIOECON

The main focus of BIOECON was to promote research that (a) furthers our understanding of the anthropocentric causes of biodiversity depletion and b) provides policy prescriptions on how the conservation of biodiversity can be reconciled with economic development. In particular the project was directed to the better understanding of the interface between human societies and biological resources, and how this interface might be better managed and directed to the purpose of conserving biological di

BioCASE

The Biological Collection Access Service for Europe, BioCASE, – a transnational network of biological collections of all kinds. BioCASE enables widespread unified access to distributed and heterogeneous European collection and observational databases using open-source, system-independent software and open data standards and protocols.

BioAssess

The main purpose of BioAssess – the Biodiversity Assessment Tools Project – was to develop biodiversity indicators or "biodiversity assessment tools" that could be used to rapidly assess biodiversity. In addition, the BioAssess project aimed to measure the impacts on biodiversity of major land use changes in eight European countries.

MIDTAL

The purpose of MIDTAL was to support the common fisheries policy to aid the national monitoring agencies by providing new rapid tools for the identification of toxic algae and their toxins so that they can comply with ECC directive 91/1491/CEE that can be converted to cell numbers and reduce the need for the mouse bioassay.

SALSEA-Merge

SALSEA-Merge delivered innovation in the areas of: genetic stock identification techniques; new genetic marker development; fine scale estimates of growth on a weekly and monthly basis; the use of novel high seas pelagic trawling technology; individual stock-linked estimates of food and feeding patterns; and novel stock specific migration and distribution models.

BABE

A major first objective of the BABE project was to make a genetic inventory of the European honeybees to identify native honeybee populations by their differences in DNA. This showed the regional variation that exists in European bees and helped beekeepers to focus on and improve their native subspecies rather than rely on the importation of mated queen bees from other areas, since this would hinder improvement of native bees.

ALARM

ALARM provided coherent scenarios of socio-economic, climate, land-use and other biodiversity-relevant trends, exploring the framework conditions for biodiversity pressures. An innovative element of the ALARM project was the combination of long term trend and short term shock scenarios, allowing a sensitivity analysis of currently predominating trend projections.

SESAME

The general scientific objectives of SESAME IP, supported by the European Commission, were to assess and predict changes in the Mediterranean and Black Sea ecosystems as well as changes in the ability of these ecosystems to provide goods and services.

SOILSERVICE

The general scientific objectives of SOILSERVICE, supported by the European Commission under FP7 Contribution of biodiversity to ecosystem services, were to value soil biodiversity through the impact on ecosystem services and propose how these values can be granted through payments.

LiveDiverse

The general scientific objectives of LiveDiverse, supported by the European Commission under FP7 Biodiversity values, sustainable use and livelihoods, were to develop new knowledge on the interactions between human livelihoods and biodiversity in riparian and aquatic contexts in four developing countries (Vietnam, India, South Africa and Costa Rica).

EBONE

The key challenge of EBONE, supported by the European Commission under FP7 Contribution to a global biodiversity observation system, was to develop a biodiversity observation system that is transmissible, cost effective and provides added value to the currently independent data sources of in situ data and EO.

HUNT

The general scientific objectives of HUNT, supported by the European Commission under FP7 Biodiversity values, sustainable use and livelihoods, were to use hunting as a lens through which to examine the wider issue of how people interact with biodiversity.

[EcoChange](#)

The final goal was to provide data, scenarios and associated confidence limits so that policy makers and land managers can use them for anticipating societal problems and for designing sustainable conservation strategies by accounting the most likely global change effects on biodiversity and ecosystems.