

Deliverable D8.3

Version: FINAL

Date: 30/06/2013

Author: UOXF.AC,

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Dissemination status: O

Document reference: Deliverable_D8.3_M49



BioFresh science-policy dialogue strategy and detailed action plan (M49)

STATUS: FINAL VERSION

Project acronym: BIOFRESH

Project name: Biodiversity of Freshwater Ecosystems: Status, Trends, Pressures, and Conservation Priorities

Call and Contract: FP7-ENV-2008-1

Grant agreement
no.: 226874

Project Duration: 01/11/2009 – 30.04.2014 (54 months)

Co-ordinator: Leibniz-Institute of Freshwater Ecology and Inland Fisheries at Forschungsverbund
Berlin e.V., Germany

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BOKU, Universität für Bodenkultur Wien, Austria
ICLARM, International Center for Living Aquatic Resources Management, Malaysia
IRD, Institut de Recherche pour le Développement, France
UDE, Universität Duisburg-Essen, Germany
IUCN, International Union for Conservation of Nature, Switzerland
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UFZ, Helmholtz Zentrum für Umweltforschung, Germany
UCL, University College of London, UK
UCBL, Université Claude Bernard - Lyon 1, France
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UD, University of Debrecin, Hungary
NRM, Naturhistoriska riksmuseet, Sweden
FIN, FishBase Information and Research Group, Inc.



BIOFRESH

Biodiversity of Freshwater Ecosystems: Status, Trends, Pressures, and Conservation Priorities

Project no. 226874




Large scale collaborative project

Deliverable number	D8.3
Deliverable name	BioFresh science-policy dialogue strategy and detailed action plan
WP no.	WP8
Lead Beneficiary (full name and Acronym)	UOXF.AC
Nature	Other
delivery date from Annex I (proj. month)	M49
Delivered	yes
Actual forecast delivery date	2013-06-30
Comments	

Project funded by the European Commission within the Seventh Framework Programme Dissemination Level		
PU	Public	✓
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

This project is supported by funding from the specific programme 'Cooperation', theme 'Environment (including Climate Change)' under the 7th Research Framework Programme of the European Union.



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In case the report consists of the delivery of materials (guidelines, manuscripts, etc)

Delivery name	Delivery file name	From Partner	To Partner

Introduction

This BioFresh document consists of a science-policy dialogue strategy and a detailed action plan to guide BioFresh activities for a continuous science-policy dialogue and building strong links between the consortium and a number of policy makers and stakeholders.

Part 1 of the strategy explains the strategic background of the science-policy-interface developed in the BioFresh project. This includes the objectives of the SPI, the stakeholders to be addressed and the activities chosen to fulfil the objectives. Part 2 presents the strategy action plan and consists of comprehensive overview of concrete actions to be undertaken in the remaining time of the project (until March 2014). The action plan includes a timeline of actions and respective responsibilities.

This strategy do not reflect on the dissemination activities that have been done so far, but highlights remaining actions until the end of the project in March 2014. They neither stress in detail the activities by UOXF, which refer to the BioFresh platform, the blog and the videos.

Part 1: The BioFresh Science-Policy-Interface-Strategy (SPIS)

This strategy is the result of specifying relevant aspects from: i) policy-related statements in the BioFresh description of work (DOW), ii) ideas generated out of the ongoing working process and series of interviews conducted with the WP leaders (started in November 2012) that sought to identify scientific relevant project outcomes for current policy processes and seek insight from their engagement with policy at various levels, iii) an online survey on stakeholder perception of the freshwater biodiversity profile in policy-making, conducted by Ecologic Institute and Oxford University in the summer of 2011. The survey found that preferred methods for receiving scientific information on freshwater biodiversity include face-to-face briefings, policy briefs and conferences/workshops, with less interest in newspapers/magazine articles. These findings were also taken into account, when choosing the right measures for the SPIS.

The key objectives of the Science Policy Dialogue, which should be facilitated by the SPIS are:

- To disseminate and support the **uptake of BioFresh results** to key target groups of policy makers and stakeholders at EU and international level.
- To reinstate the importance of freshwater biodiversity conservation on the basis of scientific evidence to policy maker communities. Provide suggestions of concrete ways to **include freshwater biodiversity into EU and international policy agendas**.
- Enhance **communication** among like-minded groups working on freshwater biodiversity to help clarify messages for policy makers and other organizations working on related topics,
- **Inform BioFresh scientists of current trends in policy** relevant to the scientific work of BioFresh.

To the extent possible, the SPIS thereby takes the SPIRAL recommendations for EU research projects into account (see table in Annex 1).

Main policies and key target groups

EU level

The EU level will be the main level of active engagement for this Science Policy Dialogue, considering the relevance of BioFresh to EU environmental policies. This is because the EU Biodiversity Strategy, with the overall aim of halting the loss of biodiversity until 2020, was identified as the main EU policy where BioFresh could positively contribute to. For this purpose, the following BioFresh outputs address key relevant policy needs regarding biodiversity in freshwaters:

- Biodiversity data are widely dispersed and difficult to access. BioFresh provides an open access Data Portal and an extensive meta-database to discover freshwater biodiversity data and databases.
- Raw data and results published in scientific papers are often difficult to be detected and interpreted by policy makers. BioFresh provides a Global Freshwater Biodiversity Atlas, an open access comprehensive collection of scientific results as maps closely linked to the original scientific papers to inform policy makers about the current state of knowledge in freshwater biodiversity research.
- Freshwater biodiversity is extremely diverse and threatened. The protected area network in Europe may not cover threatened elements of freshwater biodiversity. BioFresh identified a network of freshwater Key Biodiversity Areas (KBAs), will make a prioritisation of these areas based on different scenarios and perform a gap analysis of the coverage between these results and the existing NATURA 2000. Furthermore, predictive modelling on species distribution in response to climate change will be used to develop scenarios for a future protected area network.

Furthermore, specific research outputs of the project have been aligned with relevant targets and actions of the EU Biodiversity Strategy 2020 (see Table 1).

Table 1: Relevant BioFresh Outputs for Targets and actions under the EU 2020 Biodiversity Strategy

Target 1: Full implementation of the Birds and Habitats Directive			
Action	Implementation	Potential contributions of BioFresh	WP
1a	Complete establishment of Natura 2000, including marine by 2012	Identification of Freshwater Key Biodiversity Areas for potential inclusion in the Natura 2000 network	7
1b	Further integrate species and habitat protection and management into key policies	Efficacy of current European and global Protected Areas networks, future Protected Areas networks, and surrogates for mapping species diversity	7
1c	Management plans are developed and implemented by member states	Potential input from KBA workshop in Bosnia - one product could be action plans for priority KBA sites (Balkans) - this result is partly through a related project funded by CEPF & MAVA	7
1d	New biogeographical process established for sharing good management practices by 2012	Identification of freshwater KBAs and scenarios for prioritisation of proposed KBA network including stakeholder consultation for the Balkan region	7
3a	Communication campaign on Natura 2000 by 2013	If there are any Natura 2000 sites that are identified as KBAs for freshwater species then these could be promoted as such.	7
3b	Improve cooperation with key sectors on nature legislation implementation	Stakeholder consultation for the Balkan region to validate and identify priority KBAs will aim to set up a core set of KBAs that can be actively promoted and managed for freshwater biodiversity. Develop and apply national responsibility method for freshwater species (for transboundary KBAs)	7

4a	New EU bird reporting system by 2012, improve HD Art. 17 reporting, improve monitoring data	Collating management information for existing Protected Areas to analyse the efficacy of current freshwater KBAs could help highlight gaps in monitoring of freshwater biodiversity	7
Target 2: Maintenance and restoration of ecosystems and their services			
5	Map & assess state of ecosystems & their services by 2014; assess economic value of ES; promote integration into accounting & reporting at EU & national level by 2020	<p>Identification of freshwater KBAs can help highlight key areas that provide ecosystem services based on services that freshwater species provide</p> <p>Global freshwater biodiversity Atlas can provide supplementary information for the assessment of ecosystem condition</p> <p>The Data Portal can offer raw data for the assessment of ecosystem condition</p>	<p>7</p> <p>5</p> <p>1</p>
6a	Develop strategic framework to set priorities for ecosystem restoration at EU level	Stakeholder consultation for the Balkan region to validate and identify priority KBAs will aim to set up a core set of KBAs that can be actively promoted and managed for freshwater biodiversity - the consultation may also indicate areas that are in need of restoration	7
7b	No net loss of ecosystems & services by 2015	Baseline on the status and distribution of freshwater biodiversity in place (IUCN Red List data) and a network of critical sites of freshwater biodiversity identified.	7
Target 5: Combat Invasive Alien Species			
15	Dedicated legislative instrument on IAS by 2012	<p>Freshwater species threatened by invasive species identified and mapped</p> <p>Predictive Freshwater Biodiversity Models on invasive species spread and their effects on biodiversity may contribute to the dedicated regulation in the long-term.</p>	<p>7</p> <p>6</p>
Target 6: Global Biodiversity			
17a	Reduce biodiversity impacts of consumption	Freshwater species threatened by overharvesting identified and mapped and their status determined (IUCN Red List)	7
18b	Improve effectiveness of EU funding for global biodiversity (e.g. natural capital assessment, NBSAP)	<p>Where data exist we will create a global map of freshwater species distributions, centres of richness, threat and endemism which, combined with identification of FW KBAs, can serve as a guide for effective EU investment to optimize benefits to FW biodiversity</p> <p>The Climatic Vulnerability Index (CVI) that assesses the sensitivity and adaptive capacity of global freshwater biodiversity to climate change plus the capacity of water governance institutions may contribute to identify investment priorities at the global scale</p>	<p>7</p> <p>5</p>

In addition, BioFresh outputs from WP 6: Response of Biodiversity to Multiple Stressors can be relevant for the European Water Framework Directive (WFD):

- Predictive Freshwater Biodiversity Models on the response of aquatic communities to climate change and other anthropogenic pressures can contribute to adapt WFD restoration targets, and the ecological reference conditions and thresholds.
- Predictive Freshwater Biodiversity Models on invasive species spread and their effects on biodiversity can help incorporating invasive alien species into ecological assessment

and the Common Agricultural Policy (CAP):

- Analysis of multiple stressors to freshwater biodiversity reveal that nutrient enrichment and catchment land use are among the main discriminating stressors of freshwater diversity, overruling local-scale hydrological and morphological stress.

Hence, the results of the BioFresh project will provide key information in setting priorities in the implementation of the EU WFD, and, will help to build bridges between various EU policy frameworks (e.g., WFD, Flood Directive, Natura 2000).

In order to tackle these issues, the following institutions consisting of policy makers and stakeholders are seen as the key target groups for a direct exchange on relevant project outcomes:

- DG Environment of the European Commission
 - Biodiversity Unit and relevant working groups (MAES, Green Infrastructure working groups)
 - Water Unit
- EU level NGOs, especially WWF Europe and EEB
- Potential data users such as the EEA, GBIF and national authorities

International level

The Science Policy Dialogue with actors on the international level will have the form of information flow towards building a feel of ownership of the BioFresh products.

International level actors have more relaxed agendas and it may be easier to interact with them on products such as the Biodiversity Atlas, the Data Portal and the Metadatabase. The key policy guiding the international processes is the Convention on Biological Diversity (CBD) and relevant meetings. Actors to get in touch with and making them aware of BioFresh outcomes are e.g. RAMSAR, Wetlands International, SBSTTA of the CBD, WWF International (possibly interested in Climate Vulnerability Index; Biodiversity Atlas link to NGO on-ground implementation projects), Future Earth, Group on Earth Observations (GEO BON, WG4 (freshwater ecosystem change)) etc. In addition, IUCN with its wide international network is a direct partner of the BioFresh project.

The current strategy for a Science Policy Dialogue focuses on the EU and international level. Links to national / regional target group will be established via the cooperation with WaterDiss, which seeks to encourage national authorities/managers to make use of the data portal and to feed in data from their own work. Furthermore, individual BioFresh scientists will and are approaching international stakeholders at various conferences and meetings.

Key BioFresh messages

The communication and dissemination strategy of BioFresh has delivered a number of key messages to the science, policy and a wider community. Once more relevant results from different WPs are available, these messages are further refined. In short, based on the policy links of BioFresh outputs outlined in chapter 1, these are:

- i. The importance of freshwater biodiversity

- ii. The necessity for a harmonized freshwater biodiversity data base (single gateway for accessing distributed databases)
- iii. Better conservation policies including a higher match between highly vulnerable areas to freshwater biodiversity and areas under protection
- iv. Improved assessment of the impact of various stressors and finding adequate measures to alleviate the stressors
- v. The need to facilitate the incorporation of freshwater biodiversity into policy directives
- vi. The need for analysis at global, European and regional scales to meet the threat facing freshwater biodiversity
- vii. To create synergies among the various uses of freshwater, including biodiversity

Dissemination activities

Ecologic Institute and Oxford University carried out an online survey on stakeholder perception of the freshwater biodiversity profile in policy-making in summer 2011. The survey found that preferred methods for receiving scientific information on freshwater biodiversity include face-to-face briefings, policy briefs and conferences/workshops, with less interest in newspapers/magazine articles. Blogs and YouTube-style videos are recommended, with blogs allowing for real time targeted interaction between the scientific and policy/stakeholder communities. These findings are considered in the present Strategy on the BioFresh Science-Policy Dialogue.

Facilitating dialogues with EC policy-makers

A consultative dialogue with policy officers to link key EU policy frames with BioFresh scientific results has been planned and to some parts already implemented. The main steps for developing this dialog involved:

- (1) the identification of ongoing policy processes and working groups related with biodiversity and freshwaters (Done)
- (2) conducting regular meetings with BioFresh WP leaders for the identification of policy relevant scientific results (Done and partly ongoing since WP7 is still producing results)
- (3) participation of BioFresh in EU working groups (e.g. MAES, ECOSTAT) (done but can be continued) and
- (4) conducting meetings with DG ENV (partly done but to be continued)
- (5) supporting WFD-rated science and policy activities through the active involvement in complementary EU-funded projects (REFRESH, REFORM, MARS)

Because direct interaction with DG ENV is crucial for integrating science results in policy processes, regular meetings with policy officers at DG ENV- Anne Teller and Karin Zaunberger (ENV B2- Biodiversity), Evdokia Achilleos (ENV C1- Water) - have started in July 2013 and are planned to continue during the following months and the last period of the BioFresh project. The continued meetings will also involve data users such as the EEA (check Action Plan for more information).

Policy briefs

Two policy briefs have already been produced in BioFresh. It is planned to produce three further policy briefs until the end of the project.

The following topics are proposed for the content of the upcoming policy briefs:

1) Ecosystem services (scheduled summer 2013)

With regard to the important role of ecosystem services in current policy strategies (most importantly the EU 2020 Biodiversity strategy) but also in the CBD process the third BioFresh Policy Brief will stress the ecosystem services of freshwater ecosystems making use of the different BioFresh results. In WP 6, a paper on the application of the ecosystem service approach in freshwater biodiversity has been compiled, which will serve as the basis for the brief. However, a short assessment regarding the potential audience and the right messages, which should be transported, will be conducted in order to increase the impact of the policy brief. A possible linkage from freshwater biodiversity towards ecosystem services and food security could be a special topic of relevance in current political discussions. In order to further increase the intended impact of the policy brief, it will be presented and circulated at relevant meetings such as:

- The World Water Week (1-6 September 2013 in Stockholm)
- Meetings of COM working groups for the implementation of the EU Biodiversity Strategy (see above)
- IUCN World Parks Congress in Australia (2014)

2) BioFresh policy brief on the global hydropower dilemma.

Within the framework of the BioFresh project a global inventory of major hydropower plants that are planned or already under construction is actually carried out. The hydropower boom will affect some of the most diverse freshwater ecosystems globally. The BioFresh data portal can provide a solid basis for the future planning and implementation strategy for hydropower plants. The policy brief will firstly raise the awareness on the upcoming dilemma between further expansion of hydropower for boosting renewable energies and its threat for freshwater biodiversity. Secondly, it will outline how the BioFresh portal can be used as planning tool to potentially alleviate the negative impacts.

3) BioFresh policy recommendations (scheduled spring 2014)

The final policy brief will refer to the conclusions of the Science-Policy Symposium (see further below on this event).

Features in newsletters

BioFresh stories in DG ENV Newsletter Science for Environment Policy

“Science for the Environment” is a service from DG Environment of the European Commission to provide different audiences with research results, which are of major interests for policy-making. Scientific articles and reports are refined to make them readable for non-experts and get across key messages derived from the results. The articles are sent around via a News alert on a weekly basis, to which everyone can subscribe. Sometimes a special issue is compiled consisting of various articles on a specific topic. At the beginning of November this year, Carla Pinho from IGB was contacted directly from the editorial staff encouraging BioFresh partners to submit relevant articles for the service. Moreover, BioFresh has already been featured in this Newsalert with a recent article from Will Darwall.

The BioFresh presence in “Science for the Environment” will be enhanced in two ways. Firstly, publications produced by BioFresh partners will be screened concerning the relevance for (environmental) policy-making and the clarity in its conclusions/messages. Topics, which deserve particular attention are:

- BioFresh portal and Global Freshwater Biodiversity Atlas as resources for data and processed informations (WP1-3 and WP5).
- Aquatic amphibians as potential “surrogate” for developing global freshwater conservation planning (WP 4)
- Results from the climate vulnerability index (WP5)
- Contribution to Key Biodiversity Areas (KBA) (WP5 and 7)
- Key stressors of freshwater biodiversity and the drivers behind it (WP4 and 6)
- Ecosystem services related to freshwater biodiversity (WP6)

- Responses to species invasions to freshwater ecosystems (WP6)
- Mismatch between protected areas and freshwater biodiversity (WP7)

Selected publications will either be sent to the Service separately or bundled by also explaining their relevance to current policy processes.

Secondly, once a sufficient overview on BioFresh publication relevant for policy-making was gained, a selection of articles for a special issue (Thematic Issues, Future Briefs, Research Depository) on Freshwater Biodiversity, potentially in cooperation with other EU research projects such as REFRESH, REFORM, WISER and MARS will be suggested to the Service.

The same could be envisaged for other (free) magazines, such as the **RTD magazine** published by the European Commission.

Science-Policy Symposium

The EU freshwater science-policy symposium “Water Lives: new scientific horizons for biodiversity” and water policy” will be organized in Brussels at the 29-30 January, in partnership with the FP7 project REFRESH. During the last annual BioFresh and REFRESH meetings in April 2013, the organization of a joint Symposium was discussed and agreed, which brings together key messages from both projects. The Symposium aims to present the scientific advances of BioFresh and REFRESH, to discuss their implications for the freshwater management in the EU and to come up with clear recommendations for policy making. The goal is to support implementation of the Biodiversity Strategy 2020 and the EU Water Framework Directive (and its potential revision) and create synergies across them with the best recent knowledge on the current and future status of freshwater ecosystems and their inherent biodiversity.

In this event, we will enhance a freshwater science policy interface bringing together scientists from BioFresh and Refresh and other FP7 projects, policy makers and stakeholders at the EU level, including a balanced representation of all Member States. The planned **Symposium outcomes** are the creation of Podcasts, a document delivering key consensus messages and recommendations, and the publication of an opinion paper by both BioFresh and Refresh partners.

Further networking and engagement

In addition to the activities outlined above, the BioFresh partners are regularly presenting BioFresh scientific and policy relevant findings in various networks. Besides presentations to different audiences, direct exchange with stakeholders is thereby seen as crucial to get BioFresh’s key messages across. For example, different BioFresh partners are involved in different kinds of expert groups and scientific networks.

Klement Tockner, coordinator of BioFresh and Director of the IGB is a steering committee member of **ALTER-Net** – a network of 26 partner institutes from 18 European countries working on biodiversity science for policy – where he integrates freshwater biodiversity into the overall goals of this European network.

Furthermore, Klement Tockner is member of a recently started **UNEP** project on the development of global indicators to assess freshwater ecosystem health. BioFresh will provide the required information to link, and integrate, water quality, water quantity and biodiversity information in order to develop comprehensive indicators. In addition, Klement

Klement Tockner is involved in the **Global Water System Project (GWSP)** in order to link hydrological and biological information for identifying key priority areas for governance, water stress, and biodiversity conservation. BioFresh will cover the biodiversity component of the GWN (Global Water Needs Initiative). In this respect, a proposal had been submitted to the BELMONT Forum. Moreover, a joint paper that links water quantity, governance, and biodiversity is under revision (COSUST).

The BioFresh project already serves as a nucleus for new research initiatives that will help to support the project beyond the termination of the EU-funding. For example, the Intermittent **Biodiversity Assessment Synthesis**

project (IRBAS), recently funded through FBR (France), will use the BioFresh portal as the primary platform for all data on biodiversity of temporary streams (which cover more than 50% of the global river network globally). Most recently, Klement Tockner has been invited as member of the Scientific Steering Committee of the **Future Earth Initiative** (German section) in order to support the better integration of biodiversity into this global programme.

Finally, IGB – through support of BioFresh – is finishing a global assessment of **Biological Field Stations**. The more than 2000 major field stations provide a global resource for science, long-term monitoring, education and public information.

BioFresh is also directly cooperating with **WaterDiss**, an FP7 project aiming to improve the processes of research communication and uptake and adding an intermediate step after research.

For BioFresh WaterDiss will especially approach stakeholders on the national level. Those include:

- (a) policy makers with relevance for the BioFresh/Refresh policy symposium,
- (b) potential users of the portal and
- (c) providers of faunistic data.

Furthermore, since the linkage to already finalised and still ongoing WFD related FP projects is crucial for the success of Biofresh data portal, WaterDiss will compile a not exhaustive list of FP projects that have collected faunistic data in the past that can be used to source the data portal.

Engagement with NGOs

In addition, we will formalise informal conversation with NGO players working on freshwater biodiversity (e.g. WWF, RSPB, Wetlands International) into a coordinated influence network (or something similar). Working in partnership with key NGOs can be a good means of influence and communication of the key messages of BioFresh to policy makers. Some of the NGOs might also be represented in European Commission working groups on WFD, 2020 Biodiversity Strategy etc. BioFresh results could foster freshwater biodiversity in their agenda setting for these working groups and could underpin their positions by scientific evidence.

It is proposed to contact the following NGOs as priority:

NGO	Contact person	BioFresh partner with relevant contacts
WWF Europe	Sergey Moroz	Ecologic, Timo Kaphengst
Wetlands International	Jane Madwick, CEO Contact to be made via Paul Brotherton	Ecologic, Timo Kaphengst RBINS, Aaike De Wever
European Environment Bureau	Martina MLINARIC, Senior Policy Officer: Biodiversity, Water & Soil Protection	Info from EEB website (no person al contact)
WWF-Danube Carpathian Programme	Irene Lucius	Ecologic, Timo Kaphengst
WWF-Germany	Georg Rast	UFZ, Mathias Scholz, IGB, Klement Tockner
Rivers Trust	Alistair Maltby Rob Collins	Ecologic, Timo Kaphengst
European Centre for River Restoration (this is more a platform, than NGO)	Hil Kuypers (Secretary ECRR)	Ecologic, Timo Kaphengst
RSPB		IGB, Jörg Freyhof

		UOXF.AC, Paul Jepson
Conservation International (CI)	Ian Harrison	IUCN, William Darwall
WWF-International	Stuart Orr	UOXF.AC, Paul Jepson
The Nature Conservancy (TNC)	Brian Richter	IGB, Klement Tockner

The following steps are proposed for building partnerships with key NGO players:

- Ecologic Institute prepares a package of documents that can be used to contact by email the key contact person at each targeted NGO (BioFresh flyer; Policy Briefs; one page with key BioFresh messages relevant to freshwater biodiversity in policy-making and key products/tools of interest to NGOs)
- The first email contact can be done by Ecologic for all targeted NGOs or by each partner individually who has a personal contact at the respective organisation
- Arrange for a phone call (or personal meeting) to give more information about BioFresh results, which are of interest to the NGO and obtain more information about the NGO's current/upcoming agenda on the issue of freshwater biodiversity. In this context, we can ask for their views on the work of BioFresh and discuss possible ways of joining forces (co-authoring position papers, providing scientific evidence to support NGO arguments, discuss NGO's active role in our Science-Policy Symposium in Brussels)
- Information on hydropower development and biodiversity consequences is exchanged between IGB, as leading Institute of BioFresh, and TNC.

For each NGO, it is likely that these steps can be modified/ adapted according to our experience of cooperating with them and our knowledge of their agendas.

Part 2: Action Plan

The following table provides a summarizing overview of outputs to be produced from the activities outlined in the plan of action.

Table 1: Action Plan for the BioFresh project from July 2013 to March 2014

SPIS action	Content	Stakeholder targeted	Responsible persons	Expect. Time
Policy Brief 3	Ecosystem services of freshwater ecosystems	To be complemented	Timo Kaphengst, Núria Cid	09/2013
Policy Brief 4	The global hydropower dilemma, and its potential impact on freshwater biodiversity	World Bank, UNEP	Klement Tockner	12/2013
Policy Brief 5	Policy recommendations related to outcomes of the Symposium	EU policy makers involved in the implementation of the 2020 Biodiversity Strategy and the WFD	Timo Kaphengst, Paul Jepson, Núria Cid	03/2014
Minutes from meetings with DG ENV staff	Documents capturing the fields of mutual interest and collaboration between BioFresh activities and policy needs.	Anne Teller (ENV B2- Biodiversity), Karin Zaunberger (ENV B2- Biodiversity), Evdokia Achilleos (ENV D1- Protection of Water Resources)	Núria Cid, Ana Cristina Cardoso	07/2013 (1 st meeting) 10/2013 (2 nd meeting,) 03/2014 (3 rd meeting)
Minutes from meetings with EEA	Positioning the BioFresh Atlas and data Portal	EEA (contact person to be decided)	Núria Cid, Ana Cristina Cardoso	10/2013 (to be combined with the 2 nd meeting with DGENV)
Selected publications in DG ENV Newsletter	Scientific papers with relevance for (environmental) policy-making	Policy-makers interested in research findings for policy-making	Timo Kaphengst, McKenna Davis	Ongoing until end of project
Special issue on freshwater Biodiversity in DG ENV Newsletter	Selection of articles in cooperation with other FP7 projects (REFRESH, WISER, etc.)		Timo Kaphengst, Núria Cid	12/2013
Joint opinion paper with Refresh	Conclusions from the Symposium and contributions from both projects		Núria Cid, Timo Kaphengst	03/2014
Podcast	A small series of podcasts from the Symposium to be published on the BioFresh website	Wider interested public, researchers, policy makers	Paul Jepson	02/2014

Table 2: Timeline to fulfil the Action Plan of BioFresh

SPIS action	7/13	8/13	9/13	10/13	11/13	12/13	1/14	2/14	3/14
Policy Brief 3									
Policy Brief 4									
Policy Brief 5									
Meetings with DG ENV staff									
Selected publications in DG ENV Newsletter									
Special issue on freshwater Biodiversity in DG ENV Newsletter									
Joint opinion paper with Refresh									
Podcast									

ANNEX 1: BioFresh responses to the SPIRAL recommendations

SPIRAL recommendations to EU research projects	BIOFRESH activities (conducted and planned)	Grade of implementation
Frame the project in broader policy and societal context	Linking FWBD policy to wider water policy (PSR & Water 21 articles, blog content); linking FWBD science to recreation, art, life-style themes (blog, Water Lives video)	?
Engage with policy and other actors through project life time	BioFresh partners are members of key policy working groups e.g. WISER, MAES, IUCN Red List Ecosystems.	4
Cooperation - work with other projects	Joint symposium with REFRESH, other relevant projects are invited to the Symposium; Joint workshop with ViBRANT and REFORM; Cooperation with WaterDiss	4
Ensure early links with relevant actors at EU level	Dialogue with relevant Commission staff on specific BF outcomes	
Develop a strong strategy for science-policy interfaces and dissemination	Partly addressed by D8.3 Strategy for BioFresh Science-Policy Dialogue	3
Communicate different types of knowledge	Eclectic content of the blog and also the "Cabinet of Curiosities." Water Lives was a true experiment in this.	5
Maintain a database of key contacts and build the 'brand' of your project	A database was developed two years ago. The need to expand and develop this had been recognised and is currently being acted upon. We have been quite active on creating a project brand though a) establishing a design consistency (ppts, posters, web-presence etc) , do some innovative things (Water Lives, blog features, the Sturgeon) and the blog, twitter etc. BioFresh is already well-known among scientists, policy-makers etc.	3
Make scientist aware of how policy works	Partly addressed by phone call with WP leaders, also blog entries have these functions.	3
Ensure you have knowledge brokers on board	See partner institutions in WP 8	3
Improve involvement of policy-makers at relevant levels	Contacts are made to among others on catchment level. Further activities are planned in cooperation with WaterDiss.	
Use advisory boards and stakeholder groups	We have an advisor group and stakeholder panel	
Use existing science-policy institutions	Contacts to GBIF, DIVERSITAS, EEA, Wetlands International, Conservation International etc.	5
Develop policy section on websites	In the new web-site design we have an area/tab currently titled 'Resources and Research outputs'	2
Ensure interaction events at the end	We have been active on this with the booth at the IUCN conference and green week. Engagement beyond the project is been thought	5

of the project, and beyond	of in terms of the web-site, portal and blog, and participation in policy working groups and networks. Also relevant: Cooperation with WaterDiss	
Engage with users when developing scenarios, storylines, models and decision-support tools	Not sufficiently addressed	1
Connect with past and present projects working on related topics	Existing contacts/partner overlaps with REFRESH, WISER, Water DISS, etc.	4
Produce targeted and attractive briefs	4 Policy Briefs (2 already published)	4
Make use of existing science-policy dissemination channels	Selecting articles for publishing at Science for the Environment, blog entries etc.	5
Use open policy meetings for dissemination	Presentation of BioFresh at the EU Green Week Conference 2012; Participation to the Biodiversity Knowledge meeting; Participation to the workshop "Biodiversity and Water, links between EU nature and water legislation"	5
Disseminate more broadly	Short videos: "What is BioFresh"; "Water Lives...", Cabinet fo Curiosities, Water Lives etc.;	5
Provide training in science-policy activities	We are developing on-line training materials to support the portal	5
Make your data available to other researchers, policy makers, and the public	BioFresh Web Portal	5