

CIBioGo

"Citizen participation in biodiversity governance"

Report of the 1st peer review visit

Namur (Belgium) 19-20-21, 2024 Biological Data







TABLE OF CONTENTS

Introduction	2
Thematic	2
<u>A.</u> Masterclass	4
Planning	4
Collection	5
Validation	7
Processing data	8
Using data	13
Food for thought	15
B. Study visits	20
C. Stakeholders Workshop	34
Methodology	32
Implementation	33
Results	34
Areas for improvement from workshops with Stakeholders	3/1





Introduction

The **CIBioGo** project is a 4-year Interreg project (2023-2026) that brings together 7 European partners around the theme of citizen participation in biodiversity governance.

After an analysis of regional contexts, the project's methodology foresees to start a process of learning and exchange of good practices in terms of citizen involvement in governance processes. The order of this mutual training course led Wallonia to welcome its partners from the 6 other regions for the first edition of the Peer Review Meetings.

The organizers¹ have chosen to place the theme of **biological data**, acting as a central element in the management and communication of biodiversity issues, at the centre of the reflections. The first day was dedicated to masterclass and workshop, the second day to field visits.

This note is an operational synthesis of the main reflections presented and generated during these 2 days.

Thematic

Biological data plays a fundamental role in fostering citizen participation in biodiversity governance. By promoting the collection, analysis, and dissemination of such data, citizens can significantly contribute to the preservation and sustainable management of biodiversity.

Participatory Biodiversity monitoring, community engagement, environmental education, validation of conservation policies and actions are all examples of applications where biological data play a central role.

The management of biological data follows a cycle that begins with planning, continues with collection, validation, processing, and analysis, and finally the use that is made of it.

This use can take several forms, all of which are of strategic significance:

- 1. Dissemination to the public, whether specialised or not, for information purposes (this aspect of things is governed by European directives, the Aarhus Convention and the Walloon Environmental Code, as far as public biological data are concerned, of course.)
- 2. Decision-making at the level of public or private actors in relation to conservation policies or the implementation of projects
- 3. Concrete actions for the restoration and management of nature: Life projects, Rural Development Project, etc.
- 4. Reporting tasks, whether voluntary (more related to dissemination) or mandatory (e.g., Article 17 of the Habitats Directive and Article 12 of the Birds Directive)

_

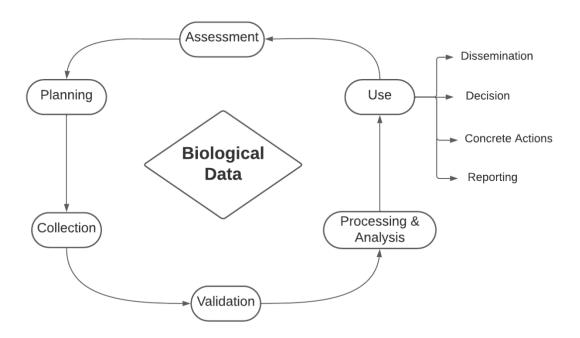
¹ Directorate of Nature and Water (DNW) from Public Service of Wallonia (PSW)







CIBioGo







A. MASTERCLASS

In the frame of the Masterclass, an evaluation was completed for each of these above processes on the way in which they are carried out in Wallonia, with more or less citizen involvement. The obstacles and difficulties inherent in the complexity of the process and/or the difficulty of integrating the citizen approach were presented.

PLANNING

SUMMARY

Dir. Annick Terneus from the Directorate of Nature and Water (DNW) (link) explained the general cycle and the way in which the planning of data collection/acquisition works is organized.

The approach chosen by the Directorate is a "project" approach based on its fundamental mission, which is to develop and disseminate knowledge and data on regional biodiversity. This mission results in a series of objectives and expected results, followed by activities to achieve them, which form the basis of the requirements definition process.

The expected products are prioritized according to the existence of a European or regional requirement (mandatory reporting).

Once the target products have been identified, the data need is deduced.

The balance sheet is then drawn up between the existing data and the data to be acquired.

The resources available in terms of internal staff at the DNE are presented.

The tools available outside of internal resources are the use of citizen science (large-scale surveys, targeted forms, etc.); public procurement from the Walloon budget using collection networks (if operators such as Natagora are selected); Networks of live naturalists (specific groups).

The planning exercise involves determining the share of each of these data sources and organizing their operationalization.







download presentation



Key message

At present, planning in the biological data management cycle is an exercise carried out entirely by the public authority, without decentralization. An assessment of the expected benefits if the exercise was partly participatory should be carried out to challenge the fact that the authority is best placed to have a vision of the needs and the means available.

COLLECTION

SUMMARY

Pr. Marc Dufrêne from University of Liège (<u>link</u>) made the comparison between citizen data and professional data, how can we make the most of both?

Belgium has a rich naturalist tradition. The first flora atlas for Belgium and Luxembourg was published fifty years ago. Botanists systematically explored the country, recording species presence using standardized forms. These checklists were used to create hand-drawn atlas maps. Similar inventories were conducted for insects, using species records from collections to produce distribution maps for nearly 2,000 species.

Since the 1990s, observation encoding has evolved with digital interfaces, allowing contributors to record their observations. Recently, these interfaces have further advanced, enabling direct field encoding and species identification. Thanks to these enhancements:

Over 9 million observations are made annually in Belgium, with 20% occurring in Wallonia.

These data serve various purposes beyond atlases, including identifying endangered species and informing conservation strategies.

Ensuring data accuracy is crucial, considering taxonomy, validation processes, coordinate precision, and additional details.





The databases are maintained by volunteer observers and professionals. Before technological advancements, around a hundred professionals contributed 80% of the data, while three times as many volunteers accounted for half. Volunteers now play a more significant role, especially in understanding rare species distributions. However, professionals' expertise remains essential, particularly for specific habitats.

Observation practices have changed. Before 2000, both volunteers and professionals compiled species lists. After 2000, most sightings focus on individual species, with fewer comprehensive lists. Notably, volunteers and professionals contribute differently to flora data, with 44% of pre-technology data from professionals. Rare species observations show distinct patterns between the two groups.

download presentation



Key message

More data doesn't mean necessarily more information. Quality of data is a key point: enhance existing data accuracy, establish consistent and reliable data validation procedures, normalize some biological inventories, especially for reference sites, prioritize professional biological inventories over volunteer efforts.

Jean-Sébastien Rousseau-Piot from Natagora (<u>link</u>**)** explained the added value of collection networks and the challenge of revitalizing these networks.

Natagora is an association active in nature conservation. It has 160 employees, 1,500 volunteers, 30,000 members, and manages 6,000 hectares of nature reserves. Natagora's four missions include conservation, education, volunteering, and science. For over 30 years, Natagora has collaborated with thousands of field naturalists to monitor biodiversity, including birds, bats, reptiles, amphibians, and other groups. The observers' network has evolved: initially, it involved volunteers coordinating the census of animals or plants and sending results to a centralized structure. Today, with web portals like Observations.be and associated field apps, observers are of different types and not necessarily coordinated. Observer categories include beginners, citizens, twitchers/listers, monitoring program volunteers, tech enthusiasts (geeks), and professionals. The use of the observation system extends to structured projects, such as species lists and transects. The main advantages of the observation system are a unique database for all groups (birds, mammals, plants, fungi, etc.)





with a powerful validation system, the ability to create highly structured projects, powerful apps for fieldwork, and assistance from artificial intelligence.

download presentation



Key message

The evolution of increasingly heterogeneous networks of naturalist observers and increasingly sophisticated technical means has led to many gains but to new challenges: this involves updating old observers to use the system, while providing better training, project information, more detailed feedback, and expanding the team of validators.

VALIDATION

SUMMARY

Alain Licoppe (DNW) (<u>link</u>) presented the Agouti semi-automatic validation interface as well as the case study of the Wolf Network in Wallonia.

Validating biological data is an essential step before their use and dissemination. It is also a stage that is often difficult and neglected. Mammal monitoring is no exception, and is a real challenge given their low detectability. We illustrate here two concrete examples of validation of data sets usually collected for this class of animal: images from camera traps (1) and opportunistic sightings collected by a network of observers for wolf monitoring (2). The validation of data from camera traps (1) is greatly facilitated using platforms such as Agouti (www.agouti.eu). This platform automatically retrieves all the metadata contained in each image file (e.g., date and time), has an increasingly powerful artificial intelligence system for determining species and offers the possibility of providing different levels of user access, including one specially designed for taxonomic specialists in charge of validation. Data relating to the wolf (2), a species that is particularly mobile and elusive in its colonisation phase, display various forms from various sources. When it comes from citizens via an online platform (www.reseauloup.be), it is first structured using standardised questionnaires and then submitted to a panel of experts. Each observation is then classified according to an international nomenclature (SCALP) that





characterises its verifiability (hard facts, confirmed indications, unconfirmed, etc.). The data is then disseminated using this coefficient of certainty.

download presentation



Key message

"Validating biological data is crucial before dissemination, even though it's often challenging and overlooked. Mammal monitoring, especially for elusive species, requires innovative approaches like using AI-powered platforms for camera trap data and expert validation for citizen-contributed observations."

PROCESSING & ANALYSIS

SUMMARY

Philippe Goffart (DNW) (link) gave an example of interesting data valorization.

The assessment of population trends is crucial for wildlife management and conservation efforts. Traditionally, structured surveys with consistent protocols have been used to estimate interannual trends. However, these methods can be impractical and costly on large spatial and temporal scales. Citizen science data, collected by volunteers, offer an alternative approach. In this context, the question is how citizen data can be used to estimate population trends, focusing on two types of data: standardized and opportunistic.

Citizen data, despite their limitations, offer valuable insights into population trends. By addressing biases and leveraging large datasets, we can estimate trends effectively and contribute to conservation efforts.

Opportunistic data, when skilfully modelled, offer valuable insights into species trends and guide conservation efforts.

To some extent, quantity can compensate for lower quality. As the informational content increases, the number of records decreases. Yet, even with lower-quality data, quantity can yield valuable information.

Statistical modelling is advancing rapidly, with new emerging techniques each year. These innovations allow for better estimates of large-scale trends. A





promising approach is integrated models, which combine different data sets within a unified hierarchical framework. For instance, we can merge opportunistic detection/non-detection data with standardized counts from specific sites. Such models typically provide more accurate estimates than using these data sets separately.

download presentation



Key message

Citizen data, despite their limitations, offer valuable insights into population trends. By addressing biases and leveraging large datasets, trends can be estimated effectively using appropriate methods and contribute to conservation efforts.

SUMMARY

Maxime Coupremanne (PFB, Belgian Federal Platform for Biodiversity) (link) testified to the complexity of data management (tools, sources, etc.) with focus on several projects.

"Open and FAIR Biodiversity data are undeniably being more and more used for the study, policy and management of our natural heritage. The Global Biodiversity Information Facility (GBIF) Network stands as a particularly successful example of this philosophy and as a precious tool for all actors involved in the generation, management, or use of raw biodiversity data.

As a part of the GBIF network being inked into a regional administration within the very divided Belgian context, the implementation of such a new way of working reveals some challenges. The SPW-DEMNA is involved in the GBIF network for many years, with a growing amount of data and data publishers being brought to the global network. Many challenges were faced and are still to be faced to fill the GBIF map, and the DEMNA experience is worth to be shared. Legal context, RGPD, quality issues, sensitive species or content, limited resources, etc. are obstacle that many similar institutes will face to reach this goal. Despite these challenges, GBIF showed to be a very precious tool when integrated into core missions rather than considered as an extra task to accomplish."

download presentation







Key message

Open and FAIR Biodiversity data are increasingly used for studying, policymaking, and managing natural heritage. The Global Biodiversity Information Facility (GBIF) serves as a successful example and a valuable tool for generating, managing, and utilizing raw biodiversity data. Integrating GBIF into core missions, rather than treating it as an extra task, has proven beneficial despite challenges such as legal context, GDPR compliance, quality issues, sensitive species, and limited resources.

USING DATA

Decision

SUMMARY

Arnaud Beckers from the consulting firm (CSD) (link) expressed its opinion on the role and value of the biological data necessary to carry out its missions, in the context of environmental assessment of projects.

The value of biological data in environmental impact studies is significant. Let's explore some key points:

Data Sources: Biological data come from various sources, including both citizen observations (individual observers, NGOs) and professional entities (regional and federal administrations, NGOs). The ease of access depends on the data's origin.

Project Types:

- Housing/Commercial/Industrial Projects: These typically involve small sites with low risk of impacting protected species. A single day of field observation is often sufficient. Biological data play a crucial role in identifying issues and advising project developers on additional surveys.
- Wind Energy Projects: Here, the risk of impacting protected species (birds and bats) is high. Adhering to official guidelines for field observations is essential, and longer observation periods are necessary.





Examples of projects:

- A real estate project considers data on owls and amphibians concerning site location.
- A business park assesses protected flora data.
- An important wind energy project faced ornithological challenges; amateur naturalists' data influenced the decision to reject the project due to its impact on a specific species.

Advantages of Existing Data:

Collaboration among stakeholders benefits from extensive existing data on various taxa. However, data quality, especially geographic precision, varies. Even small projects incur significant costs due to data collection expenses.

Data Transmission Solution:

The consultancy developed an application for field data recording. Benefits include time savings, high geographic accuracy, and secure data storage. Initially used for birds (since 2022), it will be updated for other taxa.

Regular data transmission occurs 1-2 times per year with the administration.

Link to download presentation



Key message

Existing biological data hold significant value throughout the entire lifecycle of impact studies, from study conception to client recommendations. While a wealth of data exists in Wallonia, its availability varies across taxa, with birds being overrepresented. To enhance local impact studies, addressing the degradation of regional data's geographic precision is crucial. The development of a new tool to improve accuracy and streamline data transfer represents a key area for improvement.

→ Concrete actions

SUMMARY

Arnaud Sepulchre from Natagriwal association (link) presented how stakeholder involvement is sought/optimized in examples of AESC or restoration projects.





Natagriwal, a non-profit organization, plays an essential role in raising awareness among farmers, foresters, and property owners about biodiversity conservation.

Natagriwal's mission is to inform, advise and supervise farmers, foresters and public or private landowners about the agri-environmental and climate programme, the Natura 2000 ecological network and various policies related to the environment in rural areas. The areas of action covered by the non-profit organisation are agriculture (more particularly agriculture-environment relations), soil protection, forestry, biodiversity and the management of seminatural environments. The association's target audience is mainly farmers, foresters and public or private landowners. The non-profit organisation has sixty employees, mainly field advisors. The head office is in Louvain-la-Neuve and the teams are active and spread throughout the territory of Wallonia: www.natagriwal.be.

Their approach is mainly focused on:

Advice and Support:

Natagriwal informs, advises, and supports farmers, foresters, and property owners in implementing agro-environmental and climate programs.

They provide specific guidance on hedgerow and tree planting, while also informing about available assistance1.

Natura 2000 Network:

Natagriwal informs land managers within the Natura 2000 network and assists them in implementing ecological restoration projects1.

Agro-Environmental Action Plan:

They take an environmental approach at the farm level, conducting practice assessments to define short, medium, and long-term objectives.

Various Agro-Environmental and Climate Methods (MAEC) can be implemented to achieve these goals.

Ongoing Evaluation:

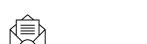
Natagriwal continually assesses actions and impacts.

Their support services for AES and related services within the Natura 2000 network and tree/hedge planting are provided free of charge.

Link to download presentation







Natagriwal's comparative advantage is to offer for free mediation, facilitation, canvassing and contracting services in favour of biodiversity (agri-environmental measures and habitat restoration) while maintaining a neutral approach that is not connoted by the label of a lobby or a public authority.

→ Reporting

SUMMARY

Benoît Theyskens from the State of the Environment (DEE, DEMNA, SPW-ARNE) (link) reports have been published regularly since 1982. The publication of these reports is a legal obligation and contributes to the implementation of the Aarhus Convention, which aims, among other things, to improve access to environmental information. Since 2018, these reports have been published on our website (http://etat.environnement.wallonie.be) in the form of indicator sheets.

Regarding the reporting process: the reference data and the assessment are provided to national and international environmental databases and reports, in particular those of the European Environment Agency (EEA), EUROSTAT, the OECD, etc. The choice of indicators processed by our team is therefore largely based on internationally recognised sets of indicators. Other indicators may be used to reflect the specificities of the Walloon context. The data used to construct our indicators come from various sources: regional and federal administrations, universities, research centres, etc. Our assessments are not limited to the components of the environment: we also monitor the parameters that influence it (energy, industry, transport, households, waste, environmental management, etc.).

Indicators reflect the reality of a given phenomenon as objectively as possible in the form of graphs or maps, based on a set of quantitative or qualitative data aggregated into condensed information. These indicators make it easier to understand, assess and monitor complex phenomena. They make it possible to identify the factors involved and provide information for decision-making. The quality of interpretations based on indicators always depends on the quality of the source data used, and no environmental issue can be reduced solely to the





aspects highlighted by the selected indicators: an analytical approach to the issues is always necessary.

download presentation



Key message

The State of the Walloon environment set out its mission to establish findings on biodiversity through the production of indicators. These indicators are particularly relevant for raising awareness among citizens and decision-makers, but also for the development of concerted conservation strategies.





FOOD FOR THOUGHT

I. The Sociologist's Point of View (F. Mélard, ULiège) (link)

Citizen Participation in Biodiversity Governance: A Decisive Role

Introduction

Citizen participation can be a game-changer in the governance of biodiversity. By actively involving citizens, we tap into a wealth of perspectives, experiences, and local knowledge. Let's explore how citizen engagement can shape biodiversity conservation and management.

Defining the Problems

At its core, citizen participation hinges on defining the problems within a specific context. Whether it's protecting endangered species, preserving ecosystems, or mitigating climate change, citizens play a pivotal role. But first, we must address a fundamental assumption: Are citizens inherently aware of the importance of conserving biodiversity?

Raising Awareness

To rally citizens around biodiversity conservation, we need to inform and raise their awareness. This isn't merely about disseminating facts; it's about fostering a sense of ownership. Citizens must understand that their actions directly impact the natural world. We're not just appealing to their intellect; we're appealing to their hearts.

The Consortium's Position

Currently, our consortium lacks an explicit methodological stance. We observe, we wish, but we haven't formalized our approach. Even seemingly innocuous data—objective and harmless—can spark debates about relevance and utility. Here, the concept of "community-based monitoring" (as explored by Conrad and Hilchey in 2011) comes into play.

Defining the Problem

The heart of the matter lies in how we define the problem. Who are the "citizens" we're engaging? The term is nebulous—often used interchangeably with "the public." But we face a challenge: How do we move beyond associations and engage citizens as practitioners? Their experiences matter, and they hold unique insights.

Citizens' Panel: A Different Perspective

A citizens' panel possesses skills that experts and public authorities lack. These skills—shaped by real-world consequences—differ from the expert mindset. Consider the following:

- Broad Framing: Ordinary citizens view problems holistically, transcending disciplinary boundaries.
- Expertise Mobilization: A citizens' panel draws on diverse expertise, enriching decisionmaking.





- Testing Expert Models: Citizen involvement pushes the limits of established models.
- Values and Common Sense: Judgments reflect values and practical wisdom.
- Alternative Thinking: Citizens propose solutions beyond expert prescriptions.
- Embracing Uncertainty: Citizens accept the possibility of errors in decisions.

Effectiveness and Biodiversity Values

Effectiveness hinges on aligning biodiversity values with actionable steps. Two critical factors come into play:

- Mandate and Commitment: Public or scientific authorities must legitimize citizen participation based on results. This confers both legitimacy and commitment.
- Respecting Citizens' Perspectives: Acknowledge the diverse ways citizens define problems. Their recalcitrance matters.

Three Dynamics of Citizen Participation

Our collaborative framework encompasses three models:

- Collaborative Model (Low Citizen Science): Engaging an indifferent audience.
- Deliberative Model: Involving a differentiated audience.
- Transformative Model (Hard Citizen Science): Mobilizing a concerned audience.

Each model varies in citizen participation, framing, and objectives. As partners in our consortium, we must tailor our approach to meet specific needs. And yes, our objectives intersect with coexistence—perhaps with wildlife.



Citizen participation is crucial for biodiversity governance, tapping into diverse perspectives and local knowledge. Informing citizens fosters a sense of ownership, emphasizing their impact on the natural world. Citizens possess unique skills, including broad framing, expertise mobilization, and embracing uncertainty.





II. From "wicked problems" to bioblitz events – inspiration for codesigning urban biodiversity projects. (Ferenc Szigeti, BURST Company) (link)

Introduction

There is a significant awareness-raising and innovation potential of cities when it comes to biodiversity protection, and by activating citizens along attractive urban biodiversity projects, it is intended to nurture citizens and communities to understand, valorise and measure biodiversity and related ecosystem services, enabling them to plan powerful biodiversity friendly solutions and foster pro-environmental behaviours.

Citizen involvement potential

There are successful tools to activate residents and nurture them to understand a so-called wicked problem – not easy to understand due to its complexity. The efforts undertaken can be efficient, because these smaller symbolic projects can have an effect in creating points of energy and initiating a snowball effect, transforming not only the given public greenspace, but the larger urban context as well.

Good Practices for citizen involvement actions

1. Participation in the global City Nature Challenge (bioblitz) - citizen science action

A BioBlitz is an event that focuses on finding and identifying as many species as possible in a specific area over a short period of time. A Bioblitz is also known as a biological inventory or biological census.

More information: https://www.ecsa.ngo/working-groups/bioblitz/

2. Street visualisation

Street visualisation refers to the creation of visual demonstration of possible changes of our built and natural environment by applying interventions for biodiversity protection, nature conservation and greening in general.

Good example for a such online programme: https://dutchcyclinglifestyle.com/

3. Biodiversity friendly menu for restaurants

Cooperation with the gastronomy sector to favorize local consumption by creating menus building on the endemic and biodiversity enhancing products, using this tool to raise awareness to the topic.

Good example of such a menu: http://www.foodcurators.nl/food-matters-biodiversity/

4. Biodiversity community walks

Community walks can be organised to estimate the value of urban greenery and show the concrete financial benefits of the surrounding biodiversity.





Good example: https://www.janejacobswalk.org/ - Jane Jacobs Walks are free self-organized walks and discussions led by committed citizens sharing their knowledge about and love for places.

5. <u>Urban Tree Festival</u>

The Urban Tree Festival is an annual community celebration of trees, including their benefits, beauty, majesty, and magic, in cities, towns and all urban environments. Events, celebrations, walks, talks and storytelling are held bringing all our communities together to educate, inspire and share their enjoyment of trees.

Origin of the movement and good example: https://urbantreefestival.org/

All Good Practices are pooled from the **BiodiverCity URBACT Action Planning Network**.



Key message

Community-sourced urban biodiversity projects can be powerful, because people care and value public (green) spaces better when they have knowledge, emotional connection and responsibility. Ownership of public places create responsible citizens. Responsible citizens take care of their environment. Taking care of our environment transforms settlements.





B. STUDY VISITS









B.1 Ferme de Froidefontaine

B.1.1. Location

GOOGLE MAPS

B.1.2. Link to the host structure

Froidefontaine

B.1.3. Good practice





"Pond creation/restoration program for farmers"

About this good practice

In Wallonia, the non-profit organisation Natagora carries out pond restoration projects with the collaboration of landowners and farm managers in "turnkey" mode.







Expert opinion

The practice consists of setting up a communication strategy first of all to make the target public aware of the advantages of creating water bodies, even small ones, for the storage and management of water, the rapid development of environments hosting biological groups of interest and then an accompaniment so that the implementation and a good part of the financing and preparation of the file are supported by the project and the funds of the Walloon Rural Development Plan.

Resources needed

Employees capable of identifying the ecological potential of the land and putting together a financing file.

PWDR Fund for Restoration

(Programme wallon de Développement Rural - PwDR)

Evidence of success

More than 250 ponds dug at 90 farmers sites, i.e. approx. 46,000 m² of restored ponds. Press articles, promotional videos.

(Example in Hamois)

Potential for learning or transfer

The turnkey approach is a demanding tool for the promoters and coordinators of nature conservation associations, but it is proving to be an excellent argument for convincing people who are put off by the complexity of putting together the application or the difficulties of financing.

Further information

https://www.youtube.com

Good practice owner

Natagora (Natagora)













B.2 Agricultural Technology Centre of Strée

B.2.1. Location

GOOGLE MAPS

B.2.2. Link to the host structure

CTA Strée (cta-stree.be)

B.2.3. Good practice





About this good practice

A collaborative project of the Regional Government for the planting of 4000 km of hedges and 1 million trees in Wallonia.

Expert opinion

The "Yes We Plant" program in Wallonia involves collaborative governance. Key aspects include coordination undertaken by the government, involvement of local authorities, public participation, collaboration with the private sector (Tree nurseries...) and NGOs, monitoring and evaluation, and education and awareness efforts. The project aims to plant **4,000 km of hedges and/or 1 million trees** in Wallonia. It encourages stakeholders to participate in reforestation efforts. The program focuses on biodiversity, climate resilience, and soil protection. Funding and technical support are provided to promote tree planting.





Resources needed.

- Dedicated working groups (sectoral and support: land management, mapping, seedling production, communication, etc.).
- Strong sponsorship at the political level.
- Personal advice.

Evidence of success

Counters count the number of km of hedges and the number of trees planted.

Yes We Did!

Potential for learning or transfer

The "Yes We Plant" project aims to promote tree planting and connectivity restoration. The potential for transfer should consider the following points:

Understanding the local context is crucial. Each region has unique conditions, including climate, biodiversity, and available resources. Adapt the project to meet specific needs, considering these factors. The collaboration with local organizations, governments, NGOs, and communities is a key factor as well. Building partnerships ensures local support and increases the project's chances of success. Workshops, awareness campaigns, and community engagement play a vital role in achieving project goals while educating the local population about the importance of tree planting.

The efficiency of a real time monitoring will contribute to actors' motivation and to assessment of environmental benefits.

Further information

YES! We plant! (wallonie.be)

Good practice owner

SPWARNE (Walloon Public Service for Agriculture, Natural Resources and Environment)

SPW Agriculture, Ressources naturelles et Environnement (wallonie.be)







CIBioGo









B.3 Lhoist s.a. Quarry (Saint-Georges Meuse)

B.3.1. Location

GOOGLE Maps

B.3.2. Link to the host structure

Lhoist

B.3.3. Good practice





Virtual tour

In Belgium, several rare and protected species benefit from habitats generated by mining activity. This is the case, among others, for the sand martin, lizards, wall lizards, natterjack toads or typical algae typical of poor environments such as characeae.

- 1. DYNAMIC MANAGEMENT OF TEMPORARY PONDS
- + 2. REFRESHING OF LOOSE CLIFFS
- 3 INSTALLATION OF SHELTERS
- + 4. SCREE MANAGEMENT
- + 5. CREATION OF PERMANENT
- 6. RESTORATION OF GRASSLANDS
 MANAGED BY MOWING AND
 GRAZING





About this good practice

The general objective of the LIFE in Quarries project is to develop and sustain this potential for hosting biodiversity in various active extraction sites in order to allow these pioneer species, often rare or endangered, to find habitats in the very heart of several quarries and sand pits in Wallonia.

Expert opinion

The originality of the LIFE in Quarries project is based on 2 sources of innovation:

- The project implements biodiversity management measures while the quarry is in operation, not just as part of the rehabilitation of the site once operations are complete.
- The project establishes numerous partnerships with other sectors, European, academic, public, NGOs, etc. with whom he works hand in hand to develop and protect biodiversity in active quarries.

Resources needed.

The total budget for the project is €5 million, financed by the European Commission (56%), by the Walloon Region (21%), by the quarry sector (19%) and by the partners (4%). Co-financing is an essential element for the implementation of the various actions spread over 6 years and in several quarry sites in Wallonia.

Evidence of success

The Life in Quarries project has implemented actions for the benefit of temporary nature (pioneer species and habitats) but also permanent nature (creation and management of permanent habitats).

Final Report

Potential for learning or transfer

Unlike most initiatives that focus on rehabilitation after extraction, Life in Quarries implements biodiversity management measures during the active extraction phase. This includes preserving specific habitats, creating artificial ecological niches, and continuously monitoring present species.

The project collaborates with various sectors and European countries. Once validated, it will demonstrate that these practices can be transferred beyond regional borders. Sharing best practices and experiences across quarries in multiple European countries will contribute to improving coexistence between industry and biodiversity.





Life in Quarries represents a significant advancement in sustainable quarry management and offers a potentially applicable model for other European contexts.

Good practice owner

FEDIEX: Fédération de l'Industrie Extractive en Belgique

(FEDIEX)

SPWARNE (Walloon Public Service for Agriculture, Natural Resources and Environment)

SPW Agriculture, Ressources naturelles et Environnement (wallonie.be)









B.4 Grand Hallet- Site des 7 fontaines

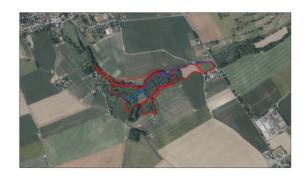
B.4.1. Location

GOOGLE MAPS

B.4.2. Link to the host structure

2875 - Les 7 Fontaines

B.4.3. Good practice



"Les 7 fontaines"



About this good practice

A site near a municipality has been the subject of an ecological restoration project thanks to a partnership between the municipality, associations, and citizens.





Expert opinion

The added value of this restoration project is undoubtedly the quality and dynamism of the partnership from the beginning, and which continues for the long-term management of the site.

The joint will of citizens and the municipality for identification, the involvement of associations and the municipality in setting up the project and carrying out the work and a participatory management committee were associated for the success of the project.

It is practically a textbook case in terms of a collaborative approach.

Resources needed

The project was made possible thanks to the joint support of Life BNIP (<u>LIFE Belgian Nature Integrated Project</u>) for the preparation of the application) and the Walloon Rural Development Programme (<u>Programme wallon de Développement Rural - PwDR</u>) for the financing of the work. Total subsidies : 334.000 €

Evidence of success

The site covers an area of 13.10 hectares and its restoration consists of forestry work such as deforestation, brush clearing and pruning of pollard willows; earthworks such as digging ponds, topping up, plugging drains; agricultural work such as the restoration of hay meadows, planting of hedges, orchards and riparian barriers; fencing work to allow extensive grazing and the installation of educational panels.

The restored and managed site is already home to many species that find on the site a rather rare hosting potential in this region where intensive agricultural practices largely dominate.

Les Sept Fontaines (Hannut) Belgique - Observations.be

Potential for learning or transfer

The restoration project of the Seven Fountains site is a good example of a collaborative project involving many actors. It highlights the identification of the need by local actors but also the necessity to coordinate the approach by a central operator, in this case a pair of associations (Natagora and Natagriwal) well versed in the dynamics of this type of project. The potential of using European funds such as those from LIFE and the Rural Development Programme is an element of success. The attribution of a protection status to the site is a factor of sustainability.









Good practice owner

Ville de Hannut:

(City of Hannut)







C. STAKEHOLDERS WORKSHOP

METHODOLOGY

The team from the Walloon Public Service Staff Development and Support Department (DDAP), which took charge of the organisation of the workshop, opted for the **HEX cards method.**



HEX cards are a professional facilitation tool that combines images, words, and symbols to enable learning, creative collaboration, and shared action.

HEX cards are a photolanguage made up of 200 cards. The tool is based on scientific research and combines these elements to make sense and easier to understand. Its hexagonal shape encourages creative collaboration between participants. HEX cards are a great tool for running a creativity workshop. They can be used in the following contexts, among others:

- Icebreaker & Introduction ;
- Idea Generation ;
- Visualization & Planning;
- Storytelling;
- Exploring Strengths & Weaknesses;
- Feedback Visual.





IMPLEMENTATION

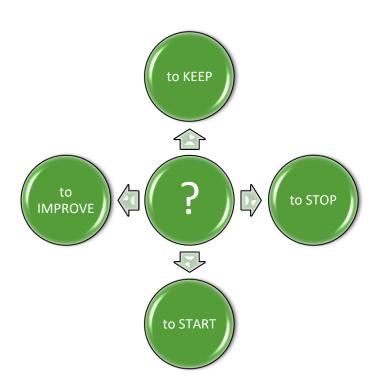
4 mixed groups of 7-8 people (partners and stakeholders of the project with a view to mixing the regions present) were formed and led by a facilitator from the DDAP.

Each group targeted one of the 4 themes related to biodiversity data developed during the morning's masterclass:

- 1. Planning
- 2. Collection
- 3. Actions
- 4. Diffusion

The choice of the group was free.

The aim was to generate ideas aimed at improving the group's target process using symbols and images by focusing on the 4 sets:



The duration of the brainstorming is about 1 hour and 30 minutes, leading to a synthesis and writing phase.

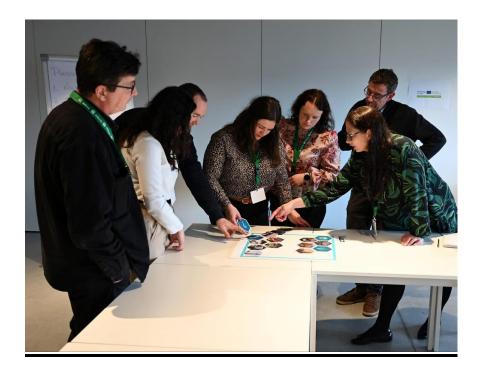
A restitution in plenary allowed the transfer of ideas to the whole assembly.







CIBioGo



RESULTS

The results are reported by process and will serve directly as a basis for reflection by the Walloon partner for the improvement of its data management processes.

AREAS FOR IMPROVEMENT FROM WORKSHOPS WITH STAKEHOLDERS

PLANNING

Citizen Participation in Planning Biological Data Collection

Citizen scientists play a pivotal role in providing essential biodiversity data. To ensure continued involvement from this strong volunteer base, understanding their concerns and motivations is crucial. Let's delve into the key aspects of citizen participation in planning data collection:

1. Connecting with People and Gathering Opinions:

 Organizing events that engage citizens is essential. These events serve as platforms to connect with people, understand their perspectives, and gather opinions on biodiversity data collection.





 By actively seeking input from citizens, planners can tailor data collection strategies to meet community needs and expectations.

2. Building a Multidisciplinary Team:

- Effective planning requires collaboration across disciplines. Assembling a multidisciplinary team ensures diverse expertise and perspectives.
- Scientists, educators, policymakers, and community members can contribute unique insights, enhancing the quality and relevance of collected data.

3. Openness and Data Sharing:

- Open data practices are critical. Making biodiversity data accessible to all stakeholders—scientists, policymakers, and the public—improves its relevance and trustworthiness.
- Transparency in data sharing fosters collaboration, encourages innovation, and supports evidence-based decision-making.

4. Online Information Campaigns:

- Leveraging digital platforms is essential for reaching a broader audience.
 Online campaigns can raise awareness about biodiversity data collection initiatives.
- Informative content, webinars, and social media engagement can educate citizens, encouraging their active participation.

5. Data Collection for Strategic Purposes:

- Biodiversity data serves as a foundation for informed strategies.
 Planners must collect data systematically, ensuring its accuracy and completeness.
- Strategic planning, conservation efforts, and policy formulation rely on robust data. Citizen-contributed information enriches these processes.

6. Stakeholder Mapping and Involvement:

- Identifying stakeholders is crucial. Mapping out relevant individuals, organizations, and communities helps create a comprehensive network.
- Involving stakeholders throughout the planning process fosters ownership, accountability, and collaborative decision-making.

COLLECTION

Citizen Participation in Biological Data Collection: Enhancing Strategies

1. Designing Data Collection Protocols:

Critical to establish clear and comprehensive protocols for data collection.





- Protocols should outline methodologies, sampling techniques, and quality control measures.
- Involving citizen scientists in protocol design ensures relevance and feasibility.

2. Accessibility Matters:

- Make data collection protocols accessible to a diverse audience.
- Use plain language, visual aids, and user-friendly formats.
- Empower citizens by providing clear instructions and removing barriers.

3. Raising Awareness Across Sectors :

- Schools: Integrate biodiversity education into curricula.
- Private Sector: Engage businesses in conservation efforts.
- General Public: Foster awareness through campaigns, workshops, and community events.
- Collective understanding drives active participation.

4. Blending Tradition with Innovation:

- Fieldwork Fusion: Combine traditional methods (e.g., field surveys, specimen collection) with cutting-edge technologies (e.g., drones, DNA barcoding).
- Benefits: Enhanced accuracy, broader coverage, and engagement.

5. **Protocol Separation for precision:**

- Avoid Mixing Everything: Different data types require distinct protocols.
- Example: Separate bird observation protocols from soil sampling quidelines.
- Clarity: Prevent confusion and maintain data integrity.

6. Embracing Innovation Fearlessly:

- Dare to Innovate: Explore novel techniques, tools, and approaches.
- Crowdsourcing Apps: Engage citizens via mobile apps for real-time data submission.
- Sensor Networks: Deploy environmental sensors for continuous monitoring.

7. Resource Efficiency and Conservation:

- Resource Stewardship: Minimize waste of time, effort, and materials.
- Strategic Sampling: Prioritize areas with high ecological significance.
- Data Quality: Invest wisely to maximize impact.

8. Advocacy for Enhanced Means:

- Persistent Advocacy: Champion the cause for increased resources.
- Funding: Advocate for grants, sponsorships, and public support.
- Capacity Building: Train more citizen scientists for broader coverage.





9. Global Collaboration and Scalability:

- Shared Knowledge: Collaborate with other countries.
- Exchange Best Practices: Learn from successful initiatives worldwide.
- Scaled Economy: Collective efforts lead to impactful global biodiversity management.

USING DATA (CONCRETE ACTIONS)

1. Stop Not Deciding, Go Forward:

- Encouraging citizens to participate in decision-making processes can be achieved by creating platforms for open discussions, conducting public consultations, and promoting the importance of individual contributions to conservation efforts.
- To foster a sense of urgency, it's important to communicate the immediate threats to biodiversity and the long-term consequences of inaction. This can be done through public awareness campaigns, educational programs, and media engagement.

2. Keep Developing Data Collection Tools:

- Investment in user-friendly tools can include developing mobile applications that allow citizens to report sightings of flora and fauna, or platforms that enable users to upload photos or observations.
- Leveraging technology can involve using AI to identify species from photos or using blockchain to ensure the integrity and traceability of the data collected.

3. A Better Framework on Data Issues:

- Clear guidelines for data quality can be established by defining what constitutes valid data, setting standards for data collection, and providing training for citizens on how to collect data.
- Ensuring citizen-generated data aligns with scientific standards can involve collaboration with research institutions to validate the data and using statistical methods to account for potential biases in citizencollected data.

4. Real-Time Faster Data Sharing:

- Real-time data sharing can be enabled through cloud-based platforms that allow instant upload and access to data.
- Digital platforms for information dissemination can include social media, dedicated websites, or email newsletters.

5. Transparency and Data-Based Decisions:

 Transparency in decision-making processes can be promoted by openly sharing the criteria used for decision-making and providing explanations for decisions made.





 Basing conservation actions on robust data involves using statistical analyses to draw conclusions from the data and ensuring that actions taken are supported by evidence.

6. Carbon Footprint of Data Processing:

- The environmental impact of data processing can be considered by using energy-efficient servers, optimizing algorithms for efficiency, or using renewable energy sources for data centers.
- Sustainable practices in data management can include recycling old hardware, using virtualization to reduce the number of physical servers needed, or using energy-saving modes when servers are not in use.

7. Motivation and Satisfaction Rewards in Communities:

- Recognizing citizen contributions can be done through certificates of appreciation, public acknowledgments, or features in newsletters.
- Incentives can include awards for the most observations made, benefits such as discounts at local businesses, or the sense of community achieved through participation.

8. Review and Follow-Up:

- Regular assessment of citizen engagement initiatives can be done through surveys to gauge participant satisfaction, or through metrics such as the number of participants or the quantity of data collected.
- Strategies can be adapted based on feedback received, or based on the outcomes achieved, such as the impact on biodiversity conservation.

9. Improve Restoring Human Connection with Nature:

- Fostering a deeper connection between citizens and the natural world can be achieved through programs that encourage outdoor activities, such as bird watching or tree planting.
- Encouraging outdoor experiences can also involve educational programs that teach about local biodiversity, or events that celebrate the natural world, such as Earth Day

USING DATA (REPORTING)

1. Inventory of Data Availability:

- An inventory of available data can be created by conducting a comprehensive survey of existing databases, research studies, and citizen science initiatives. This inventory can serve as a valuable resource for identifying gaps in knowledge and directing future data collection efforts.
- The inventory should be easily accessible and searchable, with clear descriptions of the type of data, its source, and its relevance to biodiversity conservation.





2. Transform Raw Data into Information:

- Raw data can be transformed into useful information through processes such as data cleaning, analysis, and interpretation. This can involve removing errors or inconsistencies in the data, applying statistical methods to identify patterns or trends, and interpreting the results in the context of biodiversity conservation.
- Visualization tools can be used to present the information in an accessible and engaging way, such as interactive maps or graphs.

3. One System, One Access Point for All Publics:

- A unified system can be developed to serve as a single access point for all biodiversity data. This system can include features such as a userfriendly interface, advanced search capabilities, and options for data download or export.
- The system should be designed to be accessible and useful to a wide range of users, from researchers and policymakers to educators and the general public.

4. Protection for Sensitive Data:

- Certain biodiversity data may be sensitive, such as the locations of endangered species, and should be protected to prevent misuse. This can involve measures such as restricting access to certain data, anonymizing data, or using secure data storage and transmission methods.
- Clear policies should be established for data privacy and protection, and users should be informed about these policies when contributing data or accessing the system.







Plebiscite of the best reflections

