Comment créer un bon poster scientifique ?

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Ouidah, Bénin

CEBioS

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Plan

- Communication visuelle
- But d’un poster scientifique
- Comment créer un poster scientifique ?
- Caractéristiques techniques
- Exemples
- Autres outils utiles

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Pourquoi communiquer visuellement ?

- Gain de temps : « une image vaut mille mots »
- Plus de clarté
- Plus facilement mémorisable
- Grande cohérence

Le cerveau humain traite les images 60.000 fois plus vite que les mots.

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Quel est le but d’un poster scientifique ?

- Outil de réseautage
- Attirer l’attention
- Résumé (« visual abstract »)

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Comment créer un poster scientifique ?

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Sélectionner le contenu

- Textes clairs et concis
- Informations pratiques (sources, logos, personnes de contact, etc.)
- Visuels

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Commencer par un brouillon

- Sur une feuille ou sur ordinateur
- Placement des différents éléments

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Choisir le bon outil

Powerpoint

+ Prise en main facile
+ Accessible
- Basique

Suite Adobe

+ Complet
- Difficile pour les débutants
- Payant

Canva.com

+ Intuitif
+ Assez complet
+ Gratuit
- Sur Internet
- Problème de tailles

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Les caractéristiques techniques

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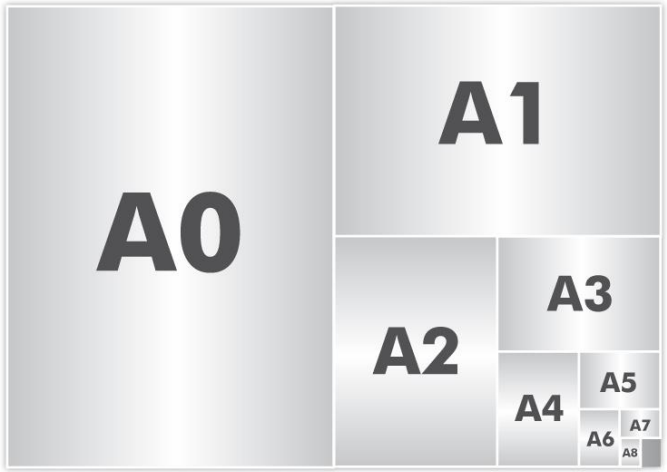
Formats et tailles

- Format A0 (84,1 cm x 118,9 cm)
- Tailles de caractères
  - Titre du poster : 59 à 64 pt
  - Auteurs : 38 à 42 pt
  - Titres de niveau 1 : > 40 pt
  - Corps de texte : > 30 pt
  - Jamais < 24 pt



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Structure

- Dans l’ordre : titre ➔ auteurs ➔ contenu ➔ logo / crédits / contact
- Liste à puces et titres numérotés
- Cadres
- Colonnes
- Pas trop de texte

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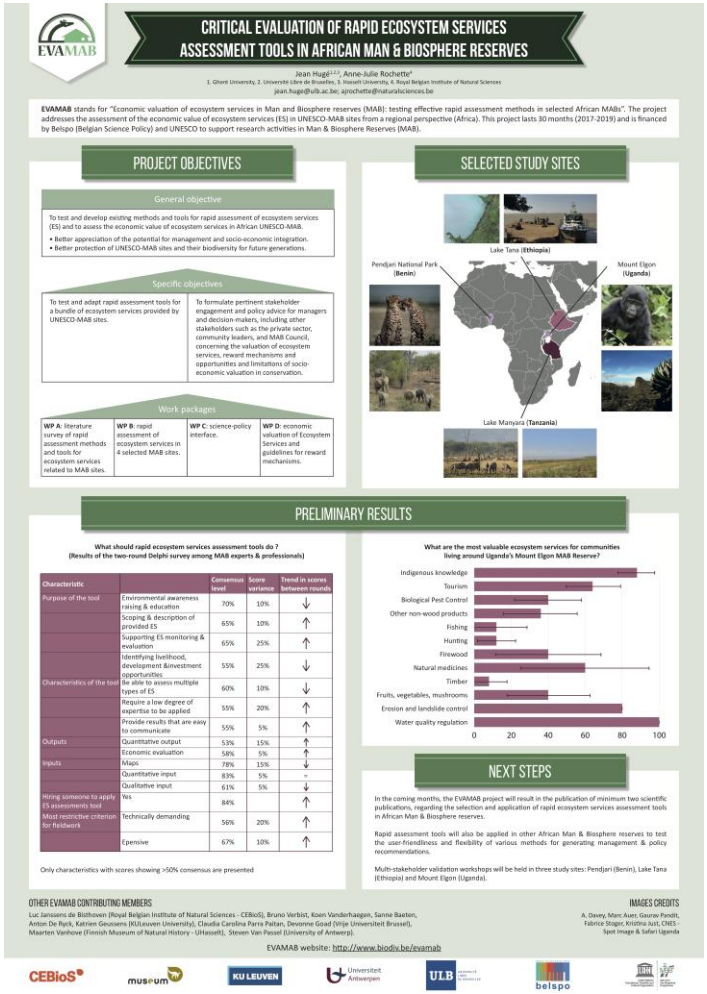
Exemple



EVAMAB

CRITICAL EVALUATION OF RAPID ECOSYSTEM SERVICES ASSESSMENT TOOLS IN AFRICAN MAN & BIOSPHERE RESERVES

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EVAMAB stands for "Economic valuation of ecosystem services in Man and Biosphere reserves (MAB): testing effective rapid assessment methods in selected African MABs". The project addresses the assessment of the economic value of ecosystem services (ES) in UNESCO-MAB sites from a regional perspective (Africa). This project lasts 30 months (2017-2019) and is financed by Belspo (Belgian Science Policy) and UNESCO to support research activities in Man & Biosphere Reserves (MAB).

PROJECT OBJECTIVES

General objective

To test and develop existing methods and tools for rapid assessment of ecosystem services (ES) and to assess the economic value of ecosystem services in African UNESCO-MAB.

- Better appreciation of the potential for management and socio-economic integration.
- Better protection of UNESCO-MAB sites and their biodiversity for future generations.

Specific objectives

To test and adapt rapid assessment tools for a bundle of ecosystem services provided by UNESCO-MAB sites.

To formulate pertinent stakeholder engagement and policy advice for managers and decision-makers, including other stakeholders such as the private sector, community leaders, and MAB Council, concerning the valuation of ecosystem services, reward mechanisms and opportunities and limitations of socio-economic valuation in conservation.

Work packages

WP A: literature survey of rapid assessment methods and tools for ecosystem services related to MAB sites.

WP B: rapid assessment of ecosystem services in 4 selected MAB sites.

WP C: science-policy interface.

WP D: economic valuation of Ecosystem Services and guidelines for reward mechanisms.

SELECTED STUDY SITES

PRELIMINARY RESULTS

What should rapid ecosystem services assessment tools do ?
(Results of the two-round Delphi survey among MAB experts & professionals)

Characteristic		Consensus level	Score variance	Trend in scores between rounds
Purpose of the tool	Environmental awareness raising & education	70%	10%	↓
	Scoping & description of provided ES	65%	10%	↑
	Supporting ES monitoring & evaluation	65%	25%	↑
	Identifying livelihood, development &investment opportunities	55%	25%	↓
Characteristics of the tool	Be able to assess multiple types of ES	60%	10%	↓
	Require a low degree of expertise to be applied	55%	20%	↑
	Provide results that are easy to communicate	55%	5%	↑
Outputs	Quantitative output	53%	15%	↑
	Economic evaluation	58%	5%	↑
Inputs	Maps	78%	15%	↓
	Quantitative input	83%	5%	=
	Qualitative input	61%	5%	↓
Hiring someone to apply ES assessments tool	Yes	84%		↑
Most restrictive criterion for fieldwork	Technically demanding	56%	20%	↑
	Epensive	67%	10%	↑

Only characteristics with scores showing >50% consensus are presented

What are the most valuable ecosystem services for communities living around Uganda's Mount Elgon MAB Reserve?

NEXT STEPS

In the coming months, the EVAMAB project will result in the publication of minimum two scientific publications, regarding the selection and application of rapid ecosystem services assessment tools in African Man & Biosphere reserves.

Rapid assessment tools will also be applied in other African Man & Biosphere reserves to test the user-friendliness and flexibility of various methods for generating management & policy recommendations.

Multi-stakeholder validation workshops will be held in three study sites: Pendjari (Benin), Lake Tana (Ethiopia) and Mount Elgon (Uganda).

OTHER EVAMAB CONTRIBUTING MEMBERS

Luc Janssens de Bisthoven (Royal Belgian Institute of Natural Sciences - CEBioS), Bruno Verbist, Koen Vanderhaegen, Sanne Baeten, Anton De Ryck, Katrien Geussens (KULeuven University), Claudia Carolina Parra Paitan, Devonne Goad (Vrije Universiteit Brussel), Maarten Vanhove (Finnish Museum of Natural History - UHasselt), Steven Van Passel (University of Antwerp).

IMAGES CREDITS

A. Davey, Marc Auer, Gaurav Pandit, Fabrice Stoger, Kristina Just, CNES - Spot Image & Safari Uganda

EVAMAB website: http://www.biodiv.be/evamab

CEBioS museum KU LEUVEN Universiteit Antwerpen ULB belspo

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Polices de caractères

- Pas plus de 2 polices différentes
- *Italique* (citations ou termes techniques)
- Gras (informations importantes)

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Couleurs

- Pas plus de 2 ou 3 !
- Attention au contraste
- Couleurs agréables pour les yeux
- Pour des exemples de palettes : www.color-hex.com/color-palettes

Visuels

- Bonne résolution
- Pas d’image de fond !
- Powerpoint séparé pour les graphiques

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Exemples

A votre avis, quels sont les problèmes ici ?

Ryedale Flood Research Group

Poster 2. How is strategic flood risk management normally done?

What is strategic flood risk management?

This is the activity that the Environment Agency undertakes to decide what flood defences are needed, where, and what ongoing maintenance is required.

How is it done?

There are two broad possibilities for doing strategic flood risk management:

Option 1. Work out where floods have been in the past

This approach has problems as it may not have flooded, the data needed may not have been recorded, or there may not be enough data. Where there has been a flood in the past, these data are very useful in helping the second option.

Option 2. Computer modelling

Computer modelling is the standard approach used to decide whether or not somewhere needs protecting and then to evaluate the options for that protection. The modelling is normally undertaken by engineering consultants working for the Environment Agency or local authorities.

As part of our project, we have been studying how this computer modelling is done.

Step 1: The Brief

It starts with a brief. The Environment Agency perceives a need for something to be done in a particular location. To appraise the flood risk and the possible management options they commission a firm of consultants. The consultants who can do this work are selected every few years under a National Level Framework Agreement.

In addition to evaluating and designing specific situations, these consultants are involved in a wide range of work including Catchment Flood Management Plans. The variety makes this an interesting job for the people doing it.

Step 2: Choosing the computer models

When the engineering consultant has got the brief their specialist team set about building a computer model that will enable them to represent the specific location. There are two types of computer model – ones that provide information on the 'hydrology' and ones that provide information on the 'hydraulics'. Put simply, hydrology models work out how big the flow in the river is during flood events. Hydraulic models work out where this flow would go to, if it is big enough to get onto the floodplain. Most of the hydrology modelling uses a national level modelling framework called the '**Flood Estimation Handbook**'.

For the hydraulics, there are more options and a key one is to decide on which modelling approach will be most appropriate, for example a 1-dimensional model like **ISIS**, **MIKE 11** or **Hec-RAS** (if the key question is what might happen with water levels in a river under different circumstances), or a 2-dimensional model like **TUFLOW** (if the key question is how the water is likely to behave when it has moved outside of the river channel).

TUFLOW

The options are constrained by having to select from models approved by **Defra** (Department for Environment, Food and Rural Affairs) and the EA for these specific purposes.

This standardisation - a common feature of engineering culture in general - limits their ability to innovate and the possibility to interrogate modelling concepts, but it makes the modelling undertaken by consultancies amenable to checking and subject to guidelines as to what is 'good practice'.

Step 3: Data

Once settled on a modelling approach, the consultancy team have to gather data to make the model work. The required data include topographic data on heights and positions of the land surface as well as surveys of the shape of the river channel.

They also need data on water flow and water levels from river gauges owned by the EA. The modellers might also visit the site and ask people about water levels during the latest flood.

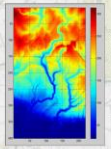
The consultant may ask for information from local people such as where and when it flooded before.

Step 4: Putting the data in the model

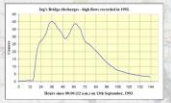
Using these data has two aspects. The first is to make the model run. The second is to allow information to be changed in the model such that the model reproduces events that have happened before. Normally, a number of events of different sizes will be considered. This is called '**model calibration**' and requires much time and effort. It is necessary to establish that the model can be trusted as an adequate representation of the river.

Step 5: Using the model

Finally, the modellers choose a range of different scenarios to model. This includes floods of different size, allowances for possible future climate changes and, most importantly, testing of different options or schemes, to reduce flood risk.



<- Digital elevation data of the catchment of Pickering Beck and adjoining areas, abstracted from source Ordnance Survey 'Nextmap' data. elevations in metres above sea level.



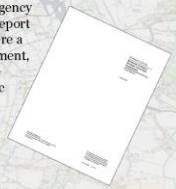
Flow discharge data for Pickering Beck recorded at the Ings Bridge -> stream gauge. The example shows the major flood event in September 1993. data from the Environment Agency)

Step 6: Writing a report

Finally, all of the work that has been done is written into a report. The report will often, especially if it is looking at different schemes, involve consideration of other factors such as costs and benefits, limiting factors for a scheme (e.g. the restrictions that might come from other legislation like the Habitats Directive). This report is presented to the Environment Agency, who review it, and may ask for changes.

Step 7: Going public

At the end of this report, the Environment Agency may make the report public, or prepare a summary document, and this may be subject to public consultation.



Backdrop: abstract from the Environment Agency's regional flood risk map, showing here part of the Vale of Pickering. Environment Agency. 2007

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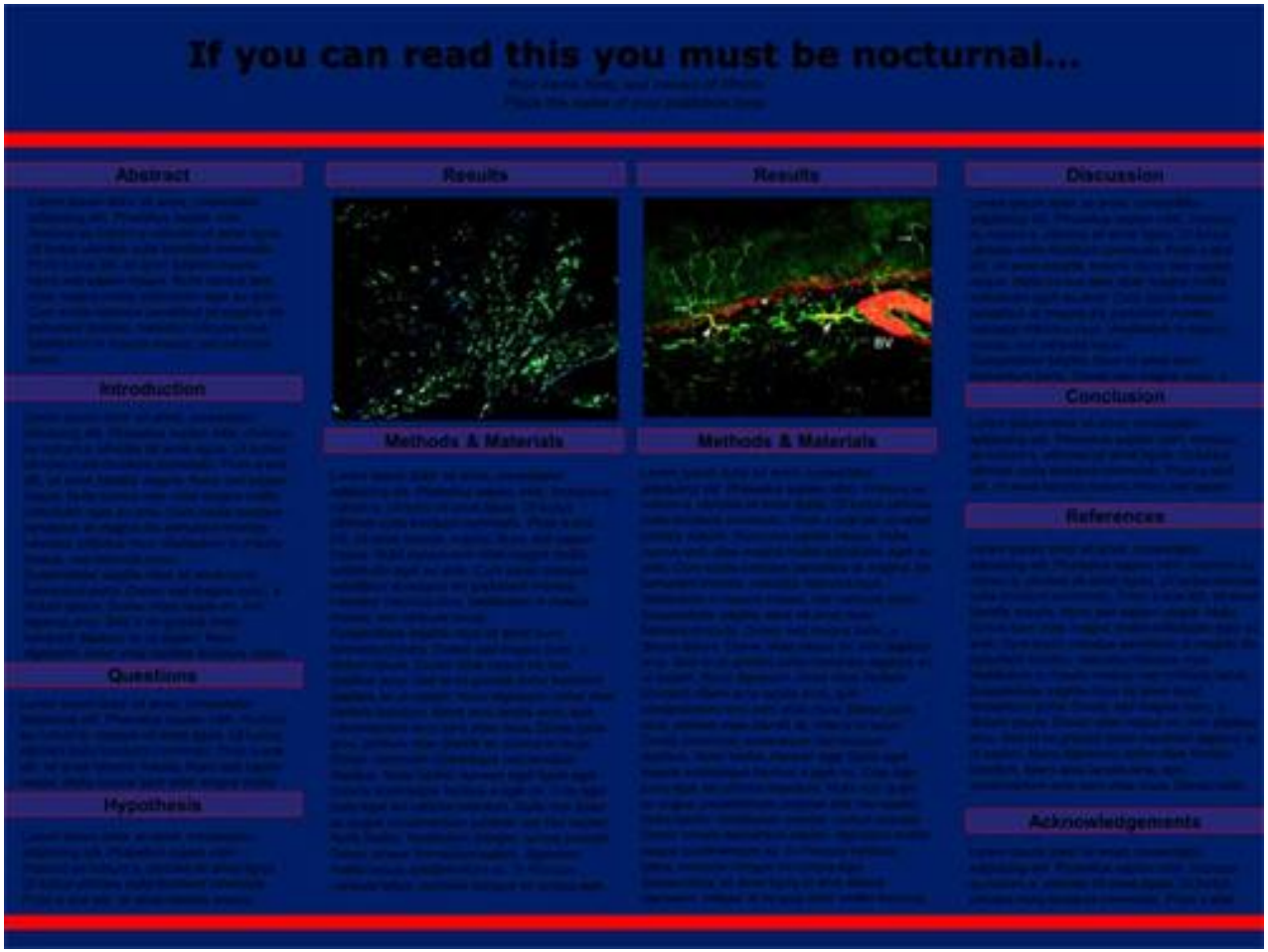
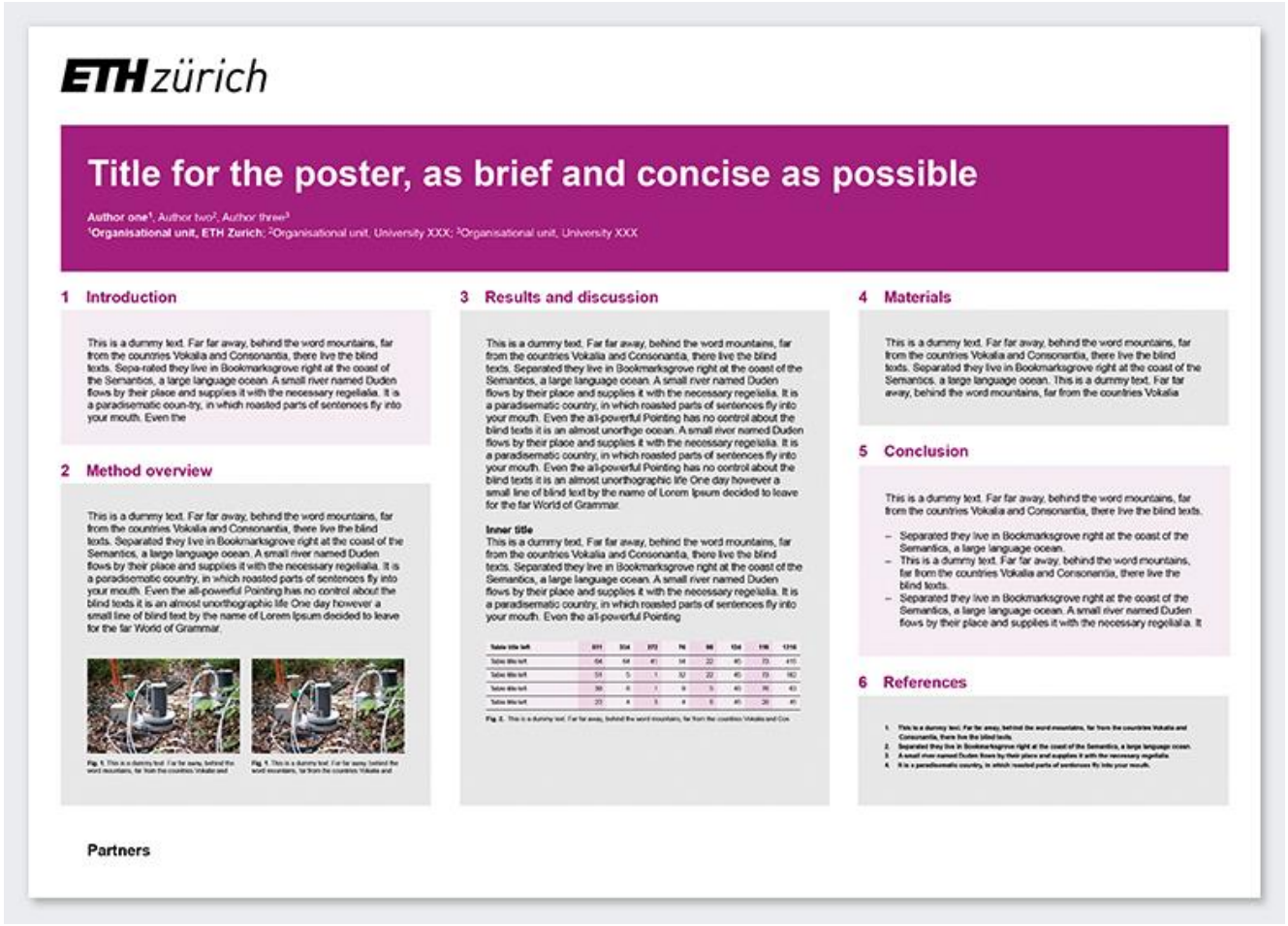
Exemples


If you can read this you must be nocturnal...
Abstract
Introduction
Questions
Hypothesis
Results
Methods & Materials
Results
Methods & Materials
Discussion
Conclusion
References
Acknowledgements

Exemples



ETH zürich

Title for the poster, as brief and concise as possible

Author one[1], Author two[2], Author three[3]
[1]Organisational unit, ETH Zurich; [2]Organisational unit, University XXX; [3]Organisational unit, University XXX

1 Introduction

This is a dummy text. Far far away, behind the word mountains, far from the countries Vokalia and Consonantia, there live the blind texts. Sepa-rated they live in Bookmarksgrove right at the coast of the Semantics, a large language ocean. A small river named Duden flows by their place and supplies it with the necessary regelialia. It is a paradisematic coun-try, in which roasted parts of sentences fly into your mouth. Even the

2 Method overview

This is a dummy text. Far far away, behind the word mountains, far from the countries Vokalia and Consonantia, there live the blind texts. Separated they live in Bookmarksgrove right at the coast of the Semantics, a large language ocean. A small river named Duden flows by their place and supplies it with the necessary regelialia. It is a paradisematic country, in which roasted parts of sentences fly into your mouth. Even the all-powerful Pointing has no control about the blind texts it is an almost unorthographic life One day however a small line of blind text by the name of Lorem Ipsum decided to leave for the far World of Grammar.

3 Results and discussion

This is a dummy text. Far far away, behind the word mountains, far from the countries Vokalia and Consonantia, there live the blind texts. Separated they live in Bookmarksgrove right at the coast of the Semantics, a large language ocean. A small river named Duden flows by their place and supplies it with the necessary regelialia. It is a paradisematic country, in which roasted parts of sentences fly into your mouth. Even the all-powerful Pointing has no control about the blind texts it is an almost unorthographic life One day however a small line of blind text by the name of Lorem Ipsum decided to leave for the far World of Grammar.

Inner title

This is a dummy text. Far far away, behind the word mountains, far from the countries Vokalia and Consonantia, there live the blind texts. Separated they live in Bookmarksgrove right at the coast of the Semantics, a large language ocean. A small river named Duden flows by their place and supplies it with the necessary regelialia. It is a paradisematic country, in which roasted parts of sentences fly into your mouth. Even the all-powerful Pointing

4 Materials

This is a dummy text. Far far away, behind the word mountains, far from the countries Vokalia and Consonantia, there live the blind texts. Separated they live in Bookmarksgrove right at the coast of the Semantics, a large language ocean. This is a dummy text. Far far away, behind the word mountains, far from the countries Vokalia

5 Conclusion

This is a dummy text. Far far away, behind the word mountains, far from the countries Vokalia and Consonantia, there live the blind texts.

- Separated they live in Bookmarksgrove right at the coast of the Semantics, a large language ocean.
- This is a dummy text. Far far away, behind the word mountains, far from the countries Vokalia and Consonantia, there live the blind texts.
- Separated they live in Bookmarksgrove right at the coast of the Semantics, a large language ocean. A small river named Duden flows by their place and supplies it with the necessary regelialia. It

6 References

Partners

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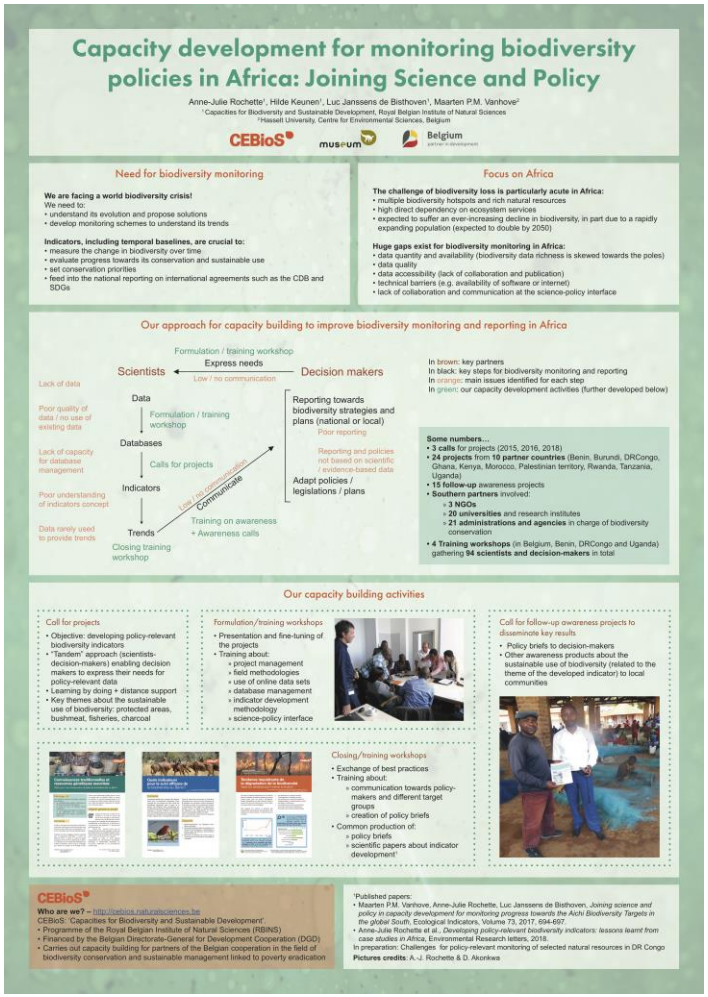
Exemples



Capacity development for monitoring biodiversity policies in Africa: Joining Science and Policy

Anne-Julie Rochette[1], Hilde Keunen[1], Luc Janssens de Bisthoven[1], Maarten P.M. Vanhove[2]
[1] Capacities for Biodiversity and Sustainable Development, Royal Belgian Institute of Natural Sciences
[2] Hasselt University, Centre for Environmental Sciences, Belgium

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Need for biodiversity monitoring

We are facing a world biodiversity crisis!
We need to:
- understand its evolution and propose solutions
- develop monitoring schemes to understand its trends

Indicators, including temporal baselines, are crucial to:
- measure the change in biodiversity over time
- evaluate progress towards its conservation and sustainable use
- set conservation priorities
- feed into the national reporting on international agreements such as the CDB and SDGs

Focus on Africa

The challenge of biodiversity loss is particularly acute in Africa:
- multiple biodiversity hotspots and rich natural resources
- high direct dependency on ecosystem services
- expected to suffer an ever-increasing decline in biodiversity, in part due to a rapidly expanding population (expected to double by 2050)

Huge gaps exist for biodiversity monitoring in Africa:
- data quantity and availability (biodiversity data richness is skewed towards the poles)
- data quality
- data accessibility (lack of collaboration and publication)
- technical barriers (e.g. availability of software or internet)
- lack of collaboration and communication at the science-policy interface

Our approach for capacity building to improve biodiversity monitoring and reporting in Africa

In brown: key partners
In black: key steps for biodiversity monitoring and reporting
In orange: main issues identified for each step
In green: our capacity development activities (further developed below)

Some numbers…
- **3 calls** for projects (2015, 2016, 2018)
- **24 projects** from **10 partner countries** (Benin, Burundi, DRCongo, Ghana, Kenya, Morocco, Palestinian territory, Rwanda, Tanzania, Uganda)
- **15 follow-up** awareness projects
- **Southern partners** involved:
  - **3 NGOs**
  - **20 universities** and research institutes
  - **21 administrations and agencies** in charge of biodiversity conservation
- **4 Training workshops** (in Belgium, Benin, DRCongo and Uganda) gathering **94 scientists and decision-makers** in total

Our capacity building activities

Call for projects
- Objective: developing policy-relevant biodiversity indicators
- "Tandem" approach (scientists-decision-makers) enabling decision makers to express their needs for policy-relevant data
- Learning by doing + distance support
- Key themes about the sustainable use of biodiversity: protected areas, bushmeat, fisheries, charcoal

Formulation/training workshops
- Presentation and fine-tuning of the projects
- Training about:
  - project management
  - field methodologies
  - use of online data sets
  - database management
  - indicator development methodology
  - science-policy interface

Call for follow-up awareness projects to disseminate key results
- Policy briefs to decision-makers
- Other awareness products about the sustainable use of biodiversity (related to the theme of the developed indicator) to local communities

Closing/training workshops
- Exchange of best practices
- Training about:
  - communication towards policy-makers and different target groups
  - creation of policy briefs
- Common production of:
  - policy briefs
  - scientific papers about indicator development[1]

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Who are we? – http://cebios.naturalsciences.be
CEBioS: 'Capacities for Biodiversity and Sustainable Development'.
- Programme of the Royal Belgian Institute of Natural Sciences (RBINS)
- Financed by the Belgian Directorate-General for Development Cooperation (DGD)
- Carries out capacity building for partners of the Belgian cooperation in the field of biodiversity conservation and sustainable management linked to poverty eradication

[1]Published papers:
- Maarten P.M. Vanhove, Anne-Julie Rochette, Luc Janssens de Bisthoven, *Joining science and policy in capacity development for monitoring progress towards the Aichi Biodiversity Targets in the global South*, Ecological Indicators, Volume 73, 2017, 694-697.
- Anne-Julie Rochette et al., *Developing policy-relevant biodiversity indicators: lessons learnt from case studies in Africa*, Environmental Research letters, 2018.

In preparation: Challenges for policy-relevant monitoring of selected natural resources in DR Congo

Pictures credits: A.-J. Rochette & D. Akoniwa

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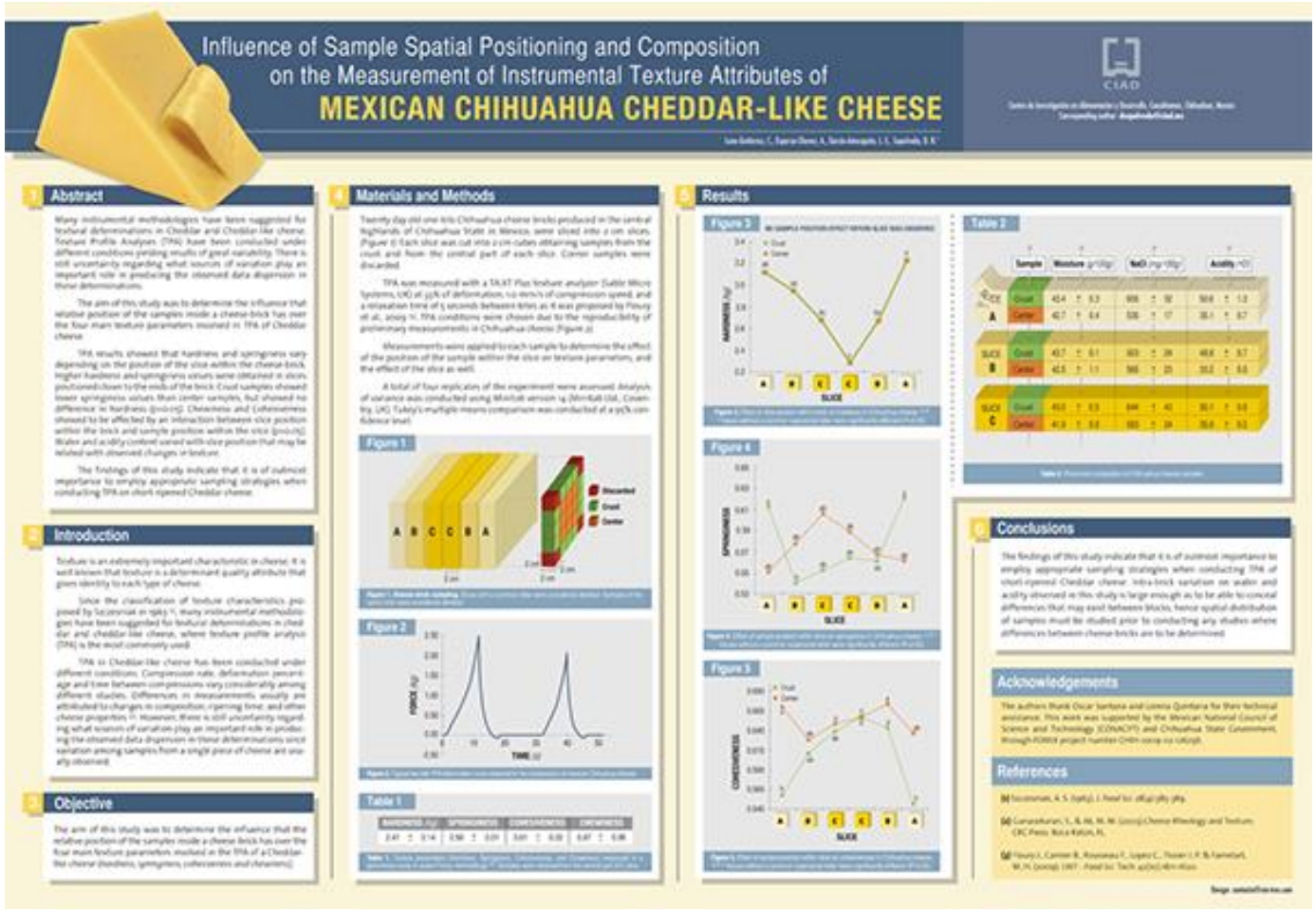
Exemples



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Outils supplémentaires

- https://www.makesigns.com/
- https://coolinfographics.com
- https://graphs.net
- https://www.flaticon.com
- https://thenounproject.com

Merci pour votre attention.

N’hésitez pas à poser vos questions.

Sources

- Science communication workshop syllabus (Belgian Biodiversity Platform)
- https://hsp.berkeley.edu/sites/default/files/ScientificPosters.pdf
- https://www.cmic.ch/formation/poster.htm#taille

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