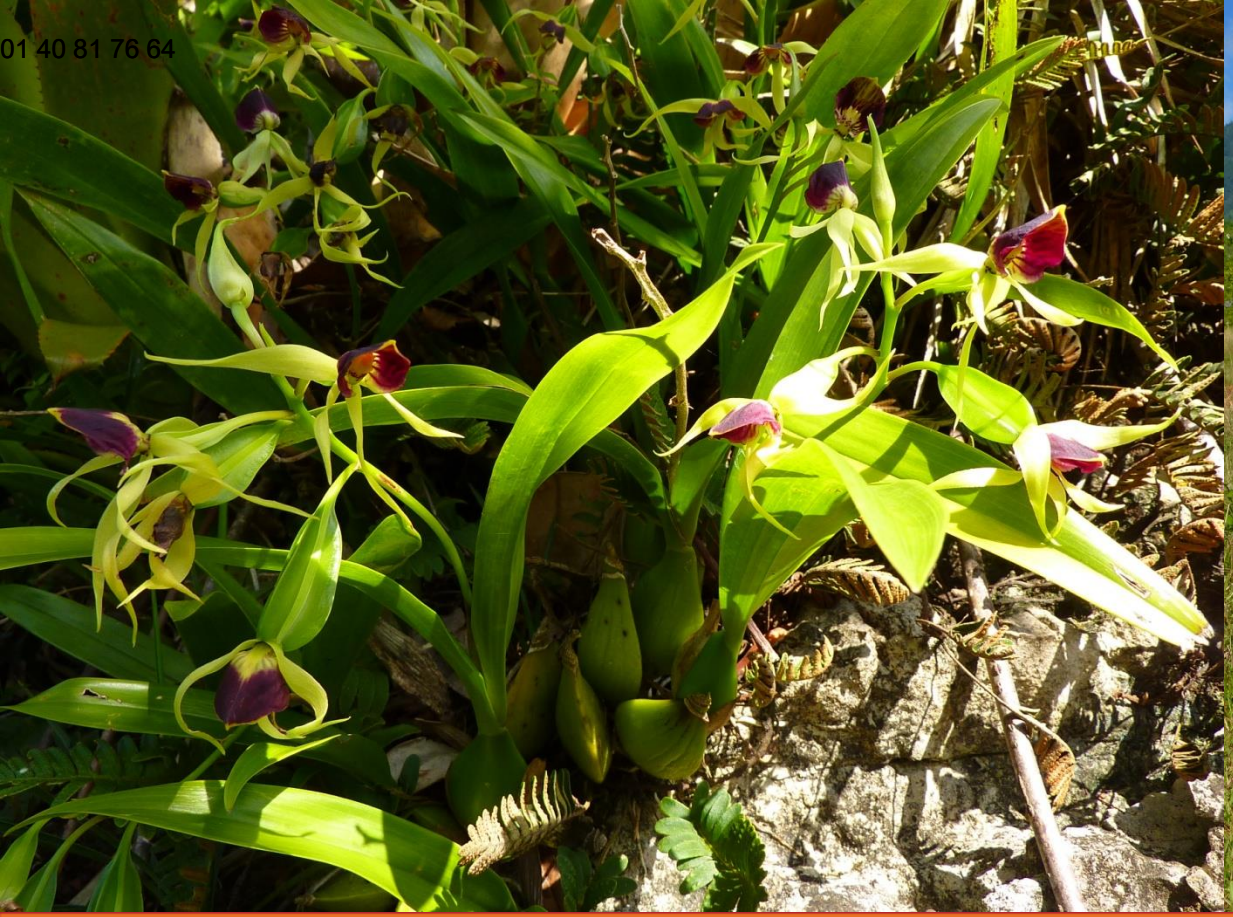

Ecosystem Profiles : prioritizing future investments in biodiversity hotspots

Best Kick-off meeting, European Commission
January 31st, 2014, Pierre Carret & Jack Tordoff

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IUCN

Ecosystem Profiling is a process, involving broad stakeholder consultations

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Objectives of Ecosystem Profile ?

1) **Set up Conservation Outcomes**

2) **Provide an overview of the socio-economic context**

3) **Identify and Prioritize Threats**

4) **Identify Funding Gaps**

5) **Define a niche and strategy for future investments**

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What Ecosystem Profile is NOT

1) A stand alone document or a “consultant” document

2) A process to generate new data (profiles are based on existing data)

3) A “Research” Study that you stuck in the shelf

4) A static and standard document (flexible to adjust to the local reality)

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Conservation Outcomes: Criteria and Process

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What are Conservation Outcomes?

Conservation Outcomes provide the biological basis for CEPF's investments in biodiversity conservation.

They are defined at three ecological scales:

- **Species –** globally threatened species
- **Sites –** Key Biodiversity Areas
- **Corridors –** inter-connected landscapes of sites

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Species Outcomes

Species outcomes equate to globally threatened species (in the IUCN categories Critically Endangered (CR), Endangered (EN) and Vulnerable (VU)).

This definition excludes Data Deficient (DD) species, which are priorities for research not action *per se*.

Also excluded are species threatened locally but not globally.

Locally threatened species endemic to the area of analysis that have not been assessed globally can be considered *candidate* species outcomes.

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Explore or refine your search below:
- Keywords
- Taxonomy
- Location
- Systems
- Habitats
- Threats
- Assessment
- Life History

Displaying all 3 species assessments

Clangula hyemalis (Long-tailed Duck)
Status: Vulnerable A4bce ver 3.1
Pop. trend: decreasing

Cystophora cristata (Hooded Seal)
Status: Vulnerable A2b ver 3.1
Pop. trend: decreasing

Ursus maritimus (Polar Bear)
Status: Vulnerable A3c ver 3.1
Pop. trend: decreasing

Citation: IUCN 2013. IUCN Red List of Threatened Species. Version 2013.2. <www.iucnredlist.org>. Downloaded on **29 January 2014**.

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Current search:
Save / Export Search

Search terms
Show taxa:
Species
Search by taxonomy:
CHORDATA
Search by location:
Greenland
(Native)
Search by assessment:
Categories: CR, EN, VU

Refinements
[X] Search by systems:
Terrestrial

Site Outcomes

Site outcomes equate to Key Biodiversity Areas (KBAs).

In most parts of the world, existing inventories of important sites for biodiversity have been prepared, at least for some taxa.

Defined criteria and thresholds exist for identification of KBAs of global importance.

Sites not meeting these criteria and thresholds can be considered to qualify as *local* or *national* KBAs.

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Evolution of KBA approach

Important Bird Area concept developed by BirdLife and partners in 1980s.

Approach extended to other taxonomic groups by CI and partners in 2000s.

KBA approach adopted by CEPF since 2002.

IUCN members at the 2004 WCC in Bangkok asked the SSC to convene a worldwide consultative process to agree a methodology to enable countries to identify Key Biodiversity Areas, building on existing approaches.

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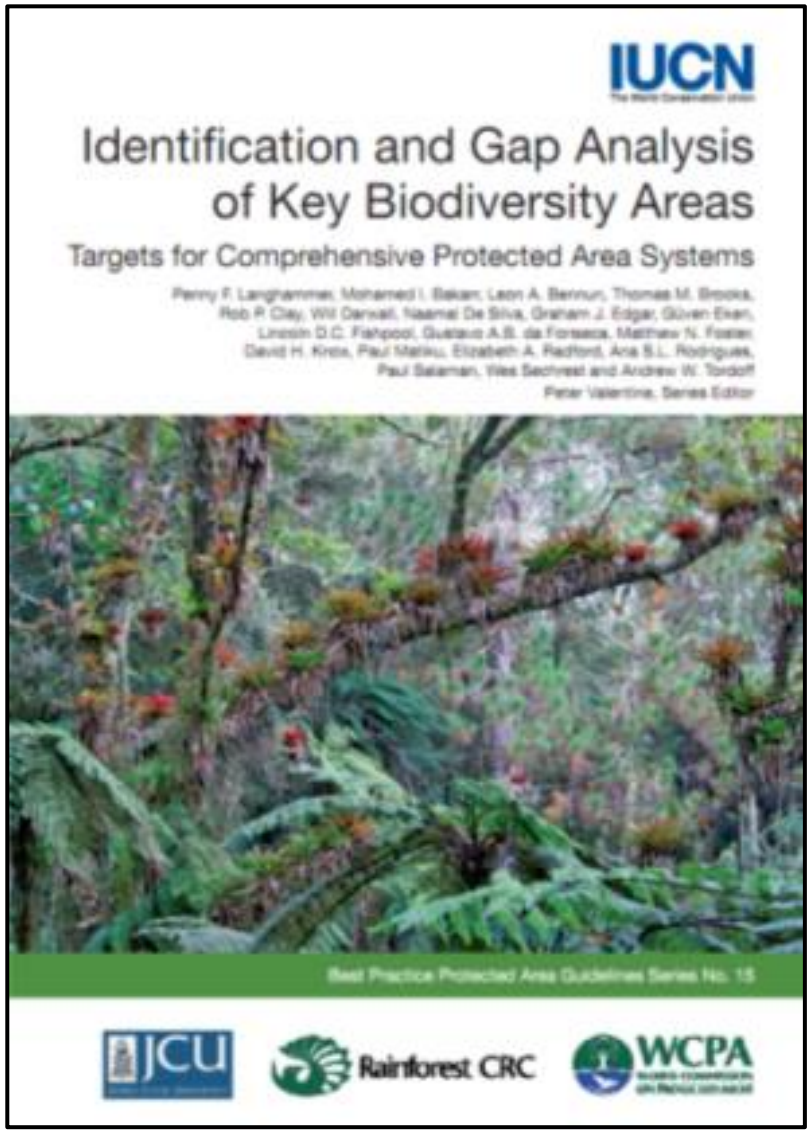
Guidelines on KBA identification



Langhammer *et al.* (2007).

Joint initiative of many leading conservation organizations and academic institutions.

Methodology used by CEPF for ecosystem profiling since 2008.

Current ‘official’ methodology.

SSC and WCPA embarked upon an extensive consultation process to consolidate a standard approach to KBA identification.

Launched in June 2012.

KBA standard and methodology will be launched at World Parks Congress in Sydney in November 2014.

Criterion A. Threatened biodiversity

Sites contributing significantly to the global persistence of:

1. Taxa that are formally assessed as **globally threatened** or expected to be classified as globally threatened once their risk of extinction is formally assessed

2. Ecosystems that are formally assessed as globally threatened or expected to be classified as globally threatened once their risk of collapse is formally assessed

Criterion B. Geographically restricted biodiversity

Sites contributing significantly to the global persistence of:

1. Species that are **geographically restricted** by having highly clumped populations or by occurring at few sites

2. Assemblages of species with geographically restricted ranges in **centers of endemism** or genetic distinctness

3. Ecosystems with geographically restricted distributions or which occur at few sites

Criterion C. Ecological integrity

Sites contributing significantly to the global persistence of biodiversity because they are exceptional examples of ecological integrity and naturalness, as represented by:

1. Intact species assemblages, comprising the composition and abundance of native species and their interactions, within the bounds of natural ranges of variation

2. The most outstanding places, within biogeographic regions, of relatively intact regionally distinct, contiguous areas of ecosystem and habitat diversity that contain **regionally distinct species assemblages** with high contextual species richness

Criterion D. Biological processes

Sites contributing significantly to the global persistence of:

1. Sites that, because of the evolutionary processes of exceptional importance that occur within them, contribute significantly to the persistence or rapid diversification of biodiversity

2. Species at key stages in their life-cycles, in which they become geographic and/or demographic **aggregations**

3. Sites that, because of the ecological processes of exceptional importance that occur within them, contribute significantly to the long-term persistence biodiversity

KBA delineation

No “one fits all” model; delineation depends on context; guidance to maximise consistency

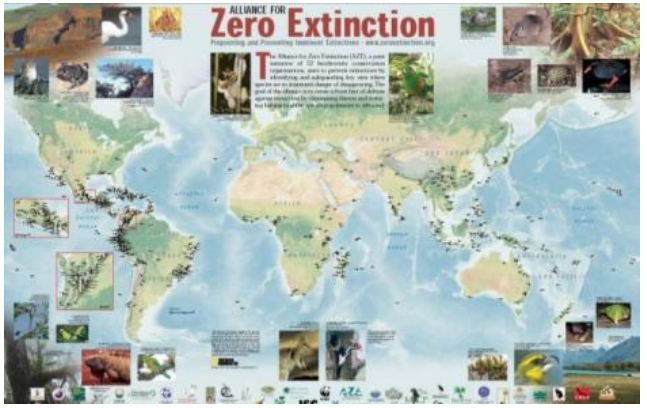
Participatory process involving relevant stakeholders

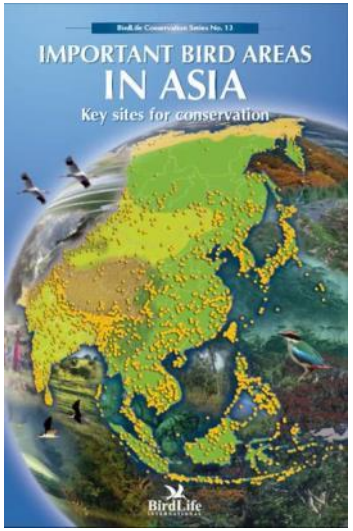
Derive initial site boundaries based on biological data

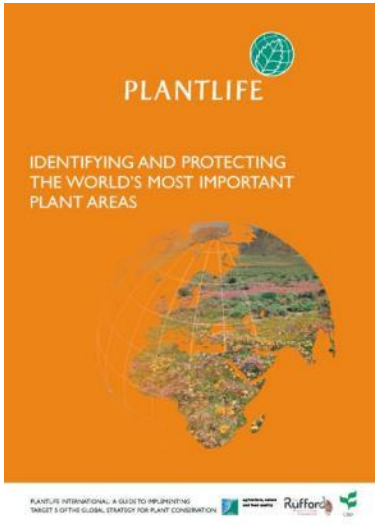
Refine biological map to yield practical boundaries (where necessary) to form a manageable unit

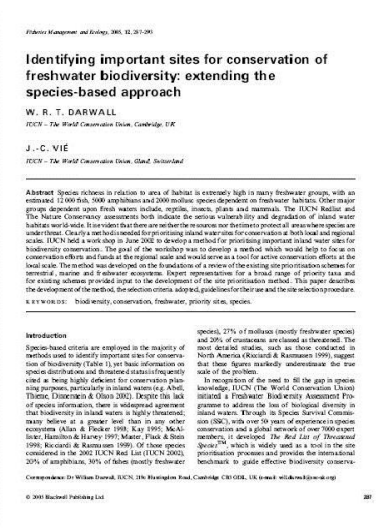
Starting point: existing inventories

- Important Bird Areas
- Important Plant Areas
- Important Freshwater Areas
- Prime Butterflies Areas
- Alliance for Zero Extinction sites
- Wings over wetlands – Critical Sites Network









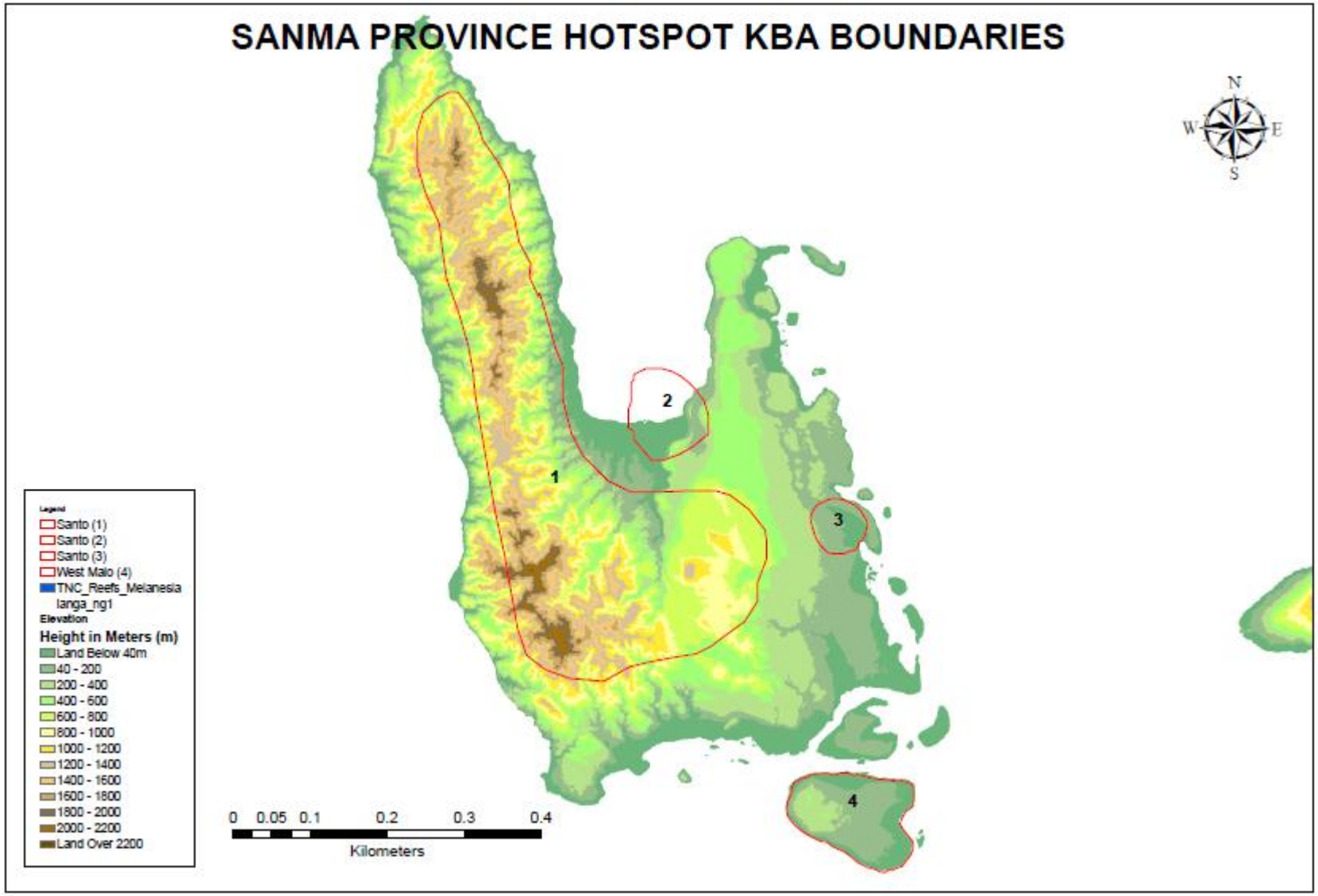
Identifying important sites for conservation of freshwater biodiversity: extending the species-based approach

W. R. T. DARWALL

J.-C. VIÉ

Consultation process: bottom up

KBA delineation and mapping



Corridor Outcomes

Corridor outcomes equate to conservation corridors: inter-connected landscapes of sites important for the conservation of broad-scale ecological and evolutionary processes and little-changed (‘intact’) ecological communities.

A prerequisite for maintenance of little-changed ecological communities is the conservation of landscape species.

Conservation corridors are anchored on KBAs, embedded in a matrix of natural and/or anthropogenic habitats.

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Defining Conservation Corridors

Where it is necessary to:

- Maintained connectivity between two or more KBAs to meet the long-term conservation needs of landscape species.
- Increase the area of actual or potential natural habitat to maintain evolutionary and ecological processes.

In the latter case, the definition of conservation corridors is largely subjective.

Emphasis is placed on maintaining continuums of natural habitat across environmental gradients, to enhance resilience against climate change.

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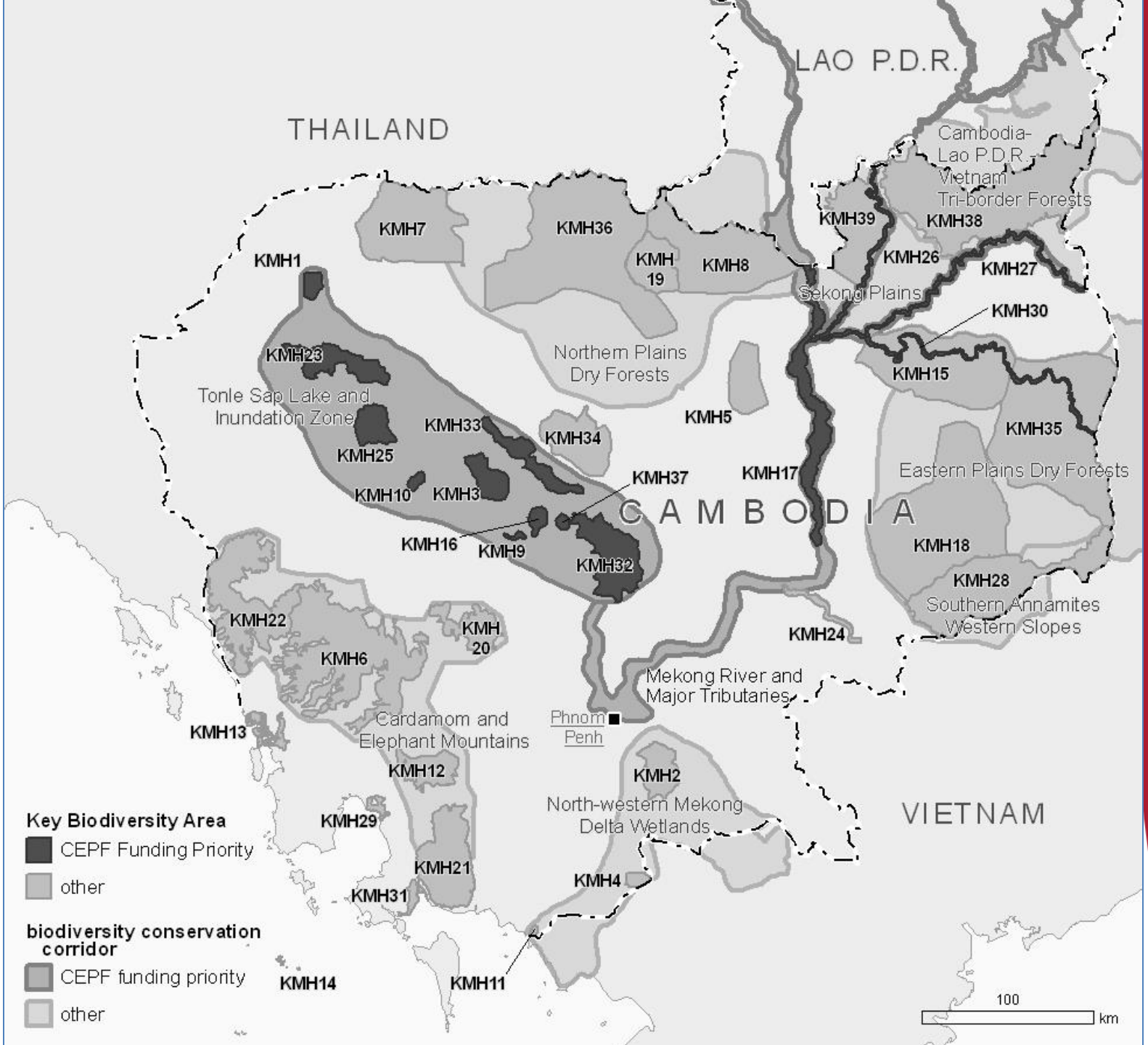
LAO P.D.R.
THAILAND
Cambodia-
Lao P.D.R.-
Vietnam
Tri-border Forests
KMH39
KMH38
KMH7
KMH36
KMH1
KMH
19
KMH8
KMH26
KMH27
Sekong Plains
KMH30
KMH23
Northern Plains
Dry Forests
KMH15
Tonle Sap Lake and
Inundation Zone
KMH5
KMH35
KMH33
KMH34
KMH25
KMH37
KMH17
Eastern Plains Dry Forests
KMH10
KMH3
CAMBODIA
KMH16
KMH9
KMH18
KMH32
KMH28
Southern Annamites
Western Slopes
KMH22
KMH
20
KMH24
KMH6
Mekong River and
Major Tributaries
Phnom
Penh
KMH13
Cardamom and
Elephant Mountains
KMH12
KMH2
North-western Mekong
Delta Wetlands
VIETNAM
KMH29
KMH21
KMH4
KMH31
Key Biodiversity Area
CEPF Funding Priority
other
biodiversity conservation
corridor
CEPF funding priority
other
KMH14
KMH11
100
km

Criteria for Priority Species

- Global threat status
- Global significance of the population in the Indo-Burma Hotspot
- Urgency of conservation action
- Need for additional donor investment
- Need for species-specific action

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Criteria for Priority Sites/Corridors

- Biological importance
- Importance for delivering ecosystem services of value to human communities
- Urgency of conservation action
- Need for additional donor investment

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Providing an overview of the context

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Socioeconomic Context of the Hotspot

- **Purpose:** Analyze the socioeconomic context to assist in developing a comprehensive understanding of development priorities (including poverty reduction impacts), threats and opportunities.

- Analyze how the socio-economic context **impacts on conservation** outcomes and how it could influence the strategic directions

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Policy Context

- **Purpose:** Present an analysis of policies related to environment with special emphasis on natural resources management and protected areas.

- Include an overview of the political situation, detailing the development/economic policies and strategies.

- This should lead to an analysis of how the political situation impacts biodiversity conservation and could influence future activities

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Civil Society Context

- **Purpose:** Provide an overview of the civil society organizations, scientific & research institutions, professional organizations and private sector (e.g. tourism, agriculture, hunting, mining, fisheries…) engaged in natural resources management and conservation in the hotspot.
- Identify the primary actors involved; and what changes are needed to support more efficiently biodiversity conservation.
- Describe existing community conservation initiatives and the formal and informal networks.
- Analyze the overall capacity and needs to increase civil society efficiency and influence.

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Identify and Prioritize Threats

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Assessment of the threats and root causes of threats that directly impact the conservation outcomes, to the ecosystem's integrity,

Description of the kind of solutions that can be designed to address the root causes of these threats.

The assessment also include discussion of specific threats on species, KBAs and corridors as listed in the conservation outcomes chapter.

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Threats to Biodiversity within the EAM hotspot

IUCN Threat Category	Country and Threat Ranking by Workshop Participants												Rank Totals	Hotspot Ranking
	BDI	DRC	ETH	KEN	MAL	MOZ	RWA	SAU	TAN	UGA	YEM	ZIM		
Agriculture and Aquaculture	**EXPANSION OF AGRICULTURE: Small holder and Large scale, plantations**													
Biological Resource Use	**OVERHARVESTING: of fuelwood, of bushmeat, of timber**													
Human Intrusions and Disturbance	**WARS and CONFLICTS: leading to displacement of populations, abandon of conservation activities**													
Natural System Modifications (e.g., Dams, Fires)	**NATURAL SYSTEMS MODIFICATION: Dams and Mining sites mainly**													
Invasive and Other Problematic Species and Genes	2	2	1	1	2	2	3	2	2	2	2	1	22	5
Climate Change and Severe Weather	**CLIMATE CHANGE: more indirect and longer term; add a pressure on already stressed ecosystems.**													
Energy Production and Mining	2	1	2	2	2	3	2	3	1	2	1	3	24	7
Residential and Commercial Development	3	2	2	2	2	3	2	1	3	2	1	2	25	8
Transportation and Service Corridors	2	2	2	3	2	2	2	1	3	3	1	3	26	9
Pollution	3	3	3	2	3	3	2	3	3	2	3	3	33	10
Geological Events	3	2	3	3	3	3	3	3	3	3	3	3	35	11

Analyze the funding gaps

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NOT an economic analysis of the funding needs for conservation (but conclusions if they exist…)

BUT a mapping of the past and present interventions, to determine sites and themes that are the most in need of support, to support the design of the strategy.

Detail major efforts on biodiversity conservation, and where and why existing activities and investments are insufficient. Identify funding to civil society organizations.

Analysis of the main donors' portfolios and strategies, and their impact for future actions (possible synergies, risks of duplication)

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Second Step:

Building up the strategy

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High Biodiversity value

High Threats

Low investments/ revenues

Manageability

Low protection

Opportunity for civil society

Priority Corridors and Sites (or Species)

and

Strategic Directions

No One size fits all!

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Existing Ecosystem Profiles in and around European Overseas…

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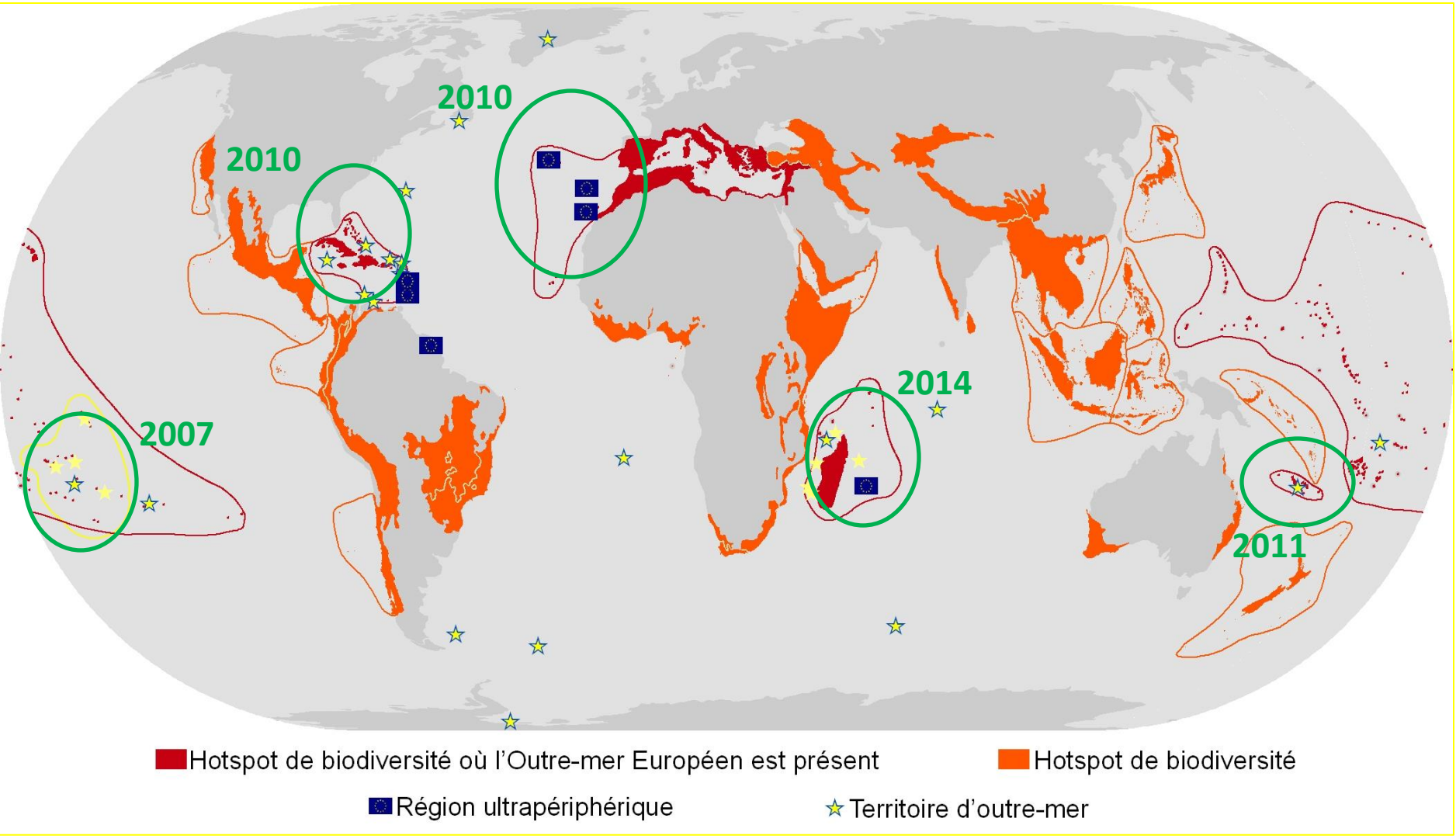
“Hotspots” and Overseas



Developing Profiles in Overseas Challenges and Questions

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- Large sets of data and existing documents (and strategies) – no need to reinvent the wheel
- Risk of a stakeholders' "fatigue"?
- Opportunities for Profile Strategies to be used by multiple stakeholders. Roles of actors other than CSOs?
- Methodological adjustments: poverty reduction? Uninhabited territories? Polar regions?
- *Others?t*
- *EPs adapt to the local realities --*

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Thank you!

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