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BUSINESS AND BIODIVERSITY OFFSETS PROGRAM

CBBIA-IAIA
Capacity-building for good practice in biodiversity and impact assessment

Conservation and Economic Development: The Role of Biodiversity Offsets

IAIA Theme Forum

FOREST TRENDS

CONSERVATION INTERNATIONAL

9 – 10:30: Introduction to Biodiversity Offsets

Part 1: Presentations and Q&A

- **Kerry ten Kate**
- **Susie Brownlie**
- **Jon Ekstrom**

Part 2: Panel & audience discussion

- **Chaired by Jo Treweek**

11 – 12:30: Aspects of Design

Who, where, what, why, how?

- **Jon Ekstrom, Angus**

Discussion

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Biodiversity offsets: Introduction & Context

Kerry ten Kate

Director
Business and Biodiversity Offsets Program (BBOP)

Forest Trends

FOREST TRENDS

CONSERVATION INTERNATIONAL

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Biodiversity offsets: Introduction & Context

- What are biodiversity offsets?
- What are the opportunities and risks?
- Business case
- Introduction to BBOP

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What are biodiversity offsets?

"Conservation actions intended to compensate for the **residual, unavoidable** harm to biodiversity caused by development projects, so as to ensure **no net loss** of biodiversity.

Before developers contemplate offsets, they should have **first sought to avoid and minimise** harm to biodiversity."

ten Kate, K.., Bishop, J., and Bayon, R. (2004). *Biodiversity offsets: Views, experience, and the business case*. IUCN and Insight Investment.

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Biodiversity offsets & impact mitigation

The mitigation hierarchy:

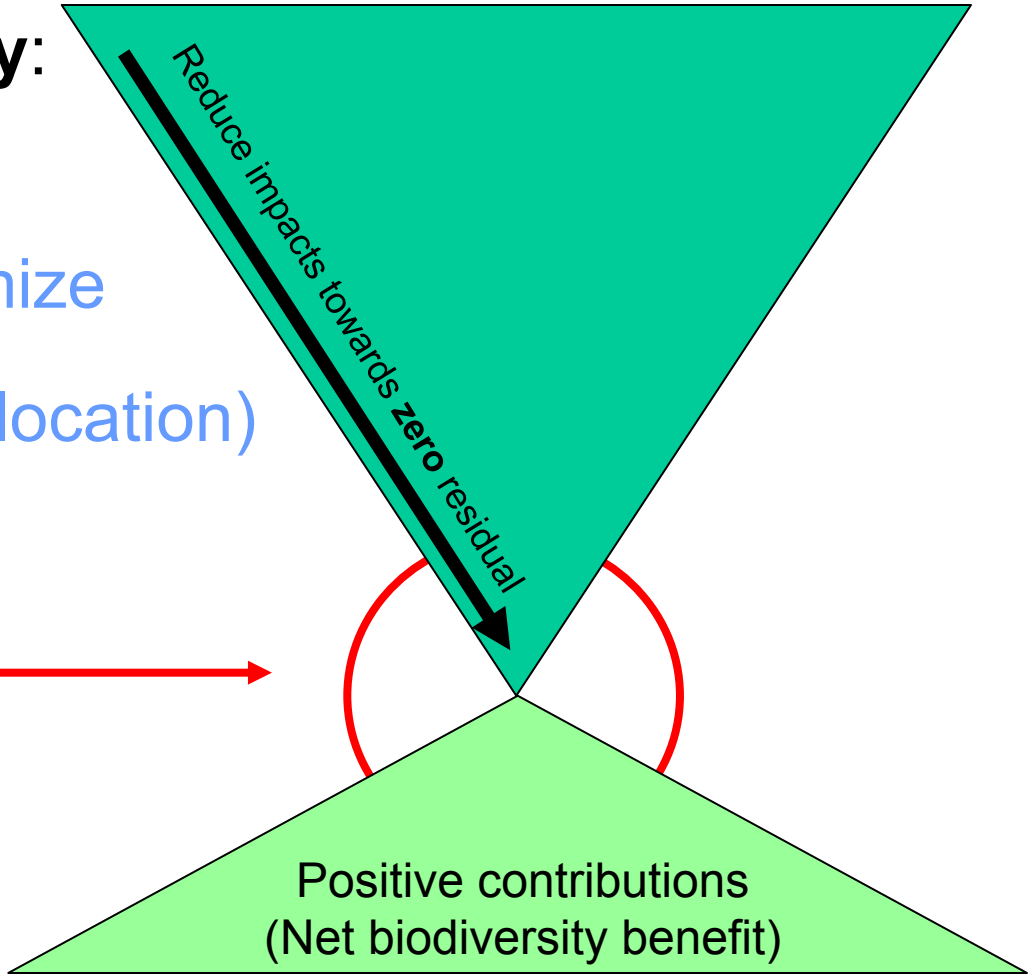
Avoid harm

Reduce, moderate, minimize

Rescue (relocation, translocation)

Repair, reinstate, restore

Compensate/offset



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Advantages of biodiversity offsets

- **Ecological sustainability**
  "no net loss" →
  "net positive impact"
- **Economic efficiency**
  cost effectiveness →
  welfare maximization
- **Social equity**
  no harm to the poor →
  poverty reduction

Conservation

- more & better conservation, mainstreaming mechanism, gives value to biodiversity

Business

- economically efficient means to secure license to operate & reputation; influence policy: market mechanism not regulation

Policy-makers

- involve private sector in achieving policy goals; use market mechanism

Local communities

- means to minimise impact on livelihoods and secure additional benefits

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Risks of biodiversity offsets

- No substitute for “no go” areas, and some impacts are “not offsetable”.
- Failure to deliver
  - Lack of capacity
  - Lack of enforcement
- Controversy
- Credible standards

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But do they make a difference?

"My question is: Are we making an impact?"

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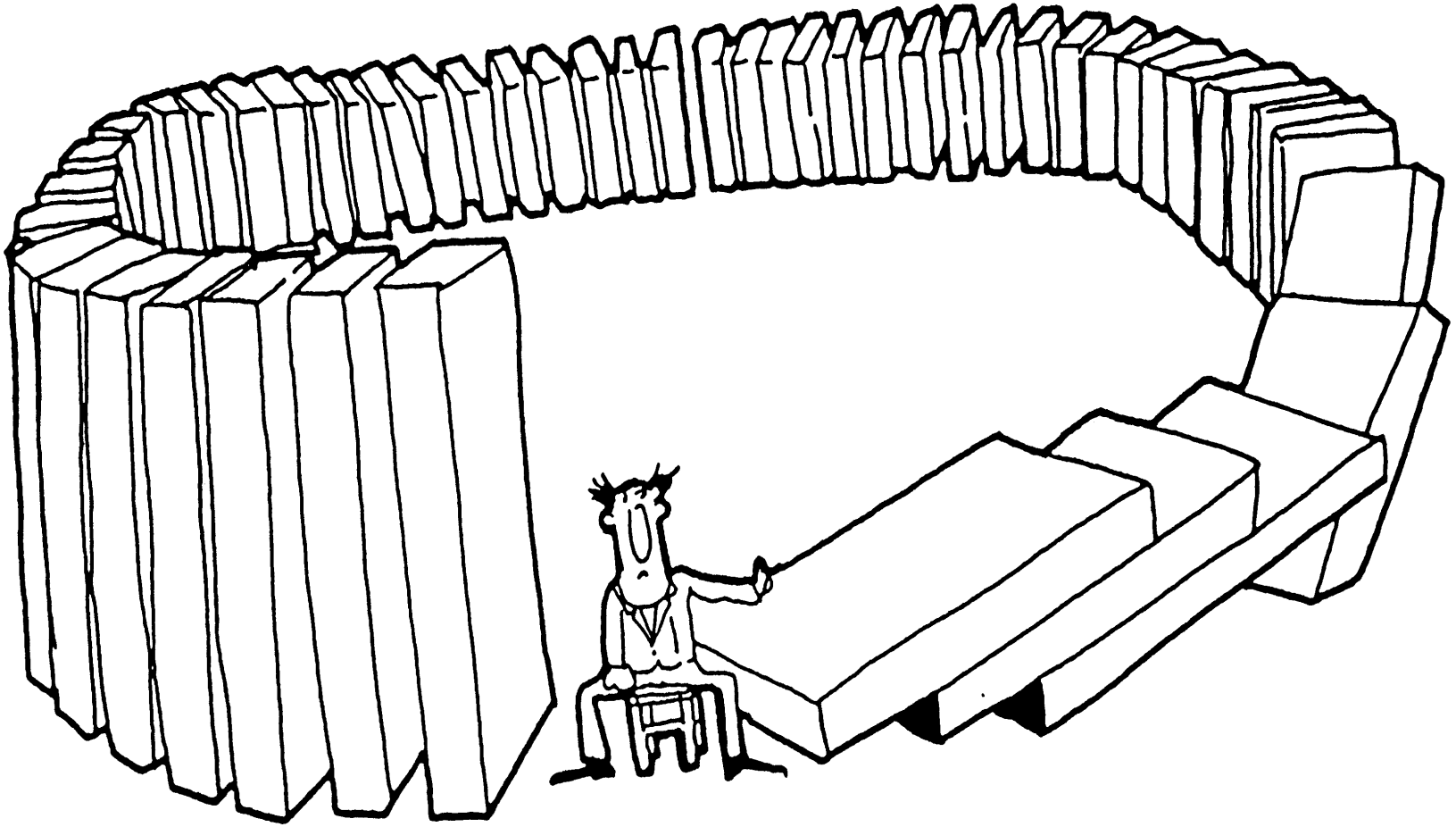
(Un-) Intended consequences?



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Why should companies implement biodiversity offsets ?

1. **Legal requirements:**
    - Law requiring offsets (e.g. US, EU, Brazil, Australia)
    - Law enabling offsets (e.g. EIA, planning law)

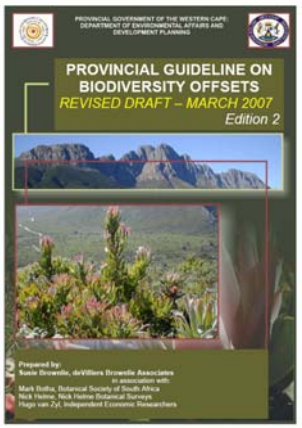
2. **The business case** for voluntary biodiversity offsets:

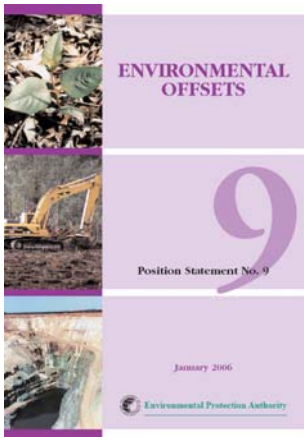
<u>Good practice</u>:

- Companies obtain permits rapidly and operate cost-effectively.
- Competitive advantage: best companies are preferred partners.
- Good relationships with government, local communities, environmental groups, employees.

<u>Bad practice</u>:

- Permit delays, liabilities, lost revenues.
- Higher operating costs.





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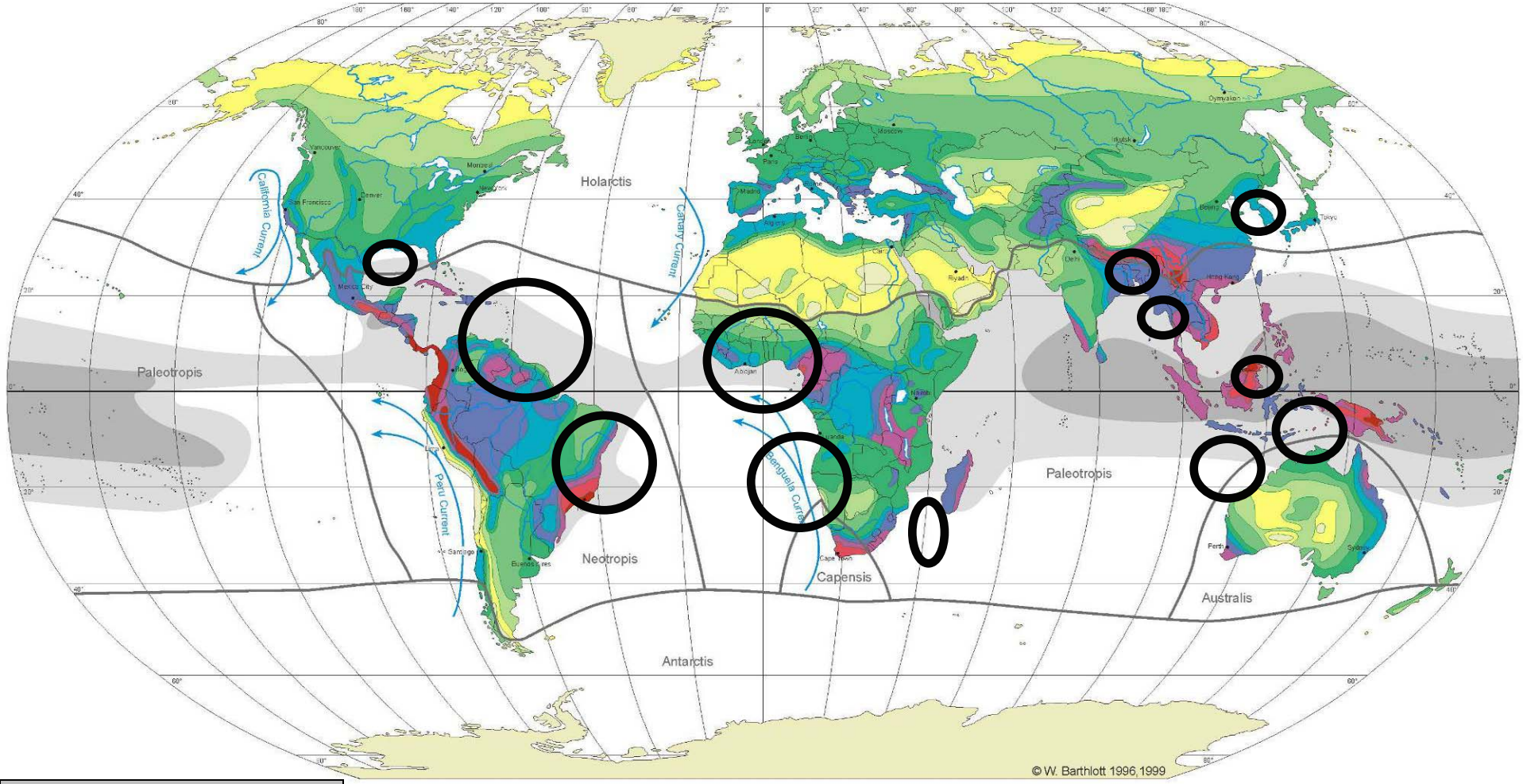
Coincidence of extractive activities and biodiversity



Overlay of top O&G projects (Goldman Sachs, 2005) on Prof Barthlott vascular plant diversity map

Diversity Zones (DZ): Number of species per 10 000km²

- DZ 1 (<100)
- DZ 2 (100 - 200)
- DZ 3 (200 - 500)
- DZ 4 (500 - 1000)
- DZ 5 (1000 - 1500)
- DZ 6 (1500 - 2000)
- DZ 7 (2000 - 3000)
- DZ 8 (3000 - 4000)
- DZ 9 (4000 - 5000)
- DZ 10 (≥ 5000)

Capensis floristic regions

sea surface temperature

- >29°C
- >27°C

cold currents

W. Barthlott, N. Biedinger, G. Braun, F. Feig, G.Kier, W. Lauer & J. Mutke 1999
modified after
W. Barthlott, W. Lauer & A. Placke1996
Department of Botany and Geography
University of Bonn
German Aerospace Research Establishment, Cologne
Cartography: M. Gref
Department of Geography University of Bonn

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Trends suggest license to operate is critical

- **Access to land & sea vital**
- **Overlap between biodiversity and future extraction**
- **Move to wilderness**

  (accessible reserves exploited since Industrial Revolution and before)
- **Non-OECD**
- **Marine**
- **More control over access**
- **Public concern: new "social contract"**

- **Access to assets** is key performance driver (Goldman Sachs, 2004)
- Typical mine/reserve **life** ≈ 25yrs
- Unprecedented **replacement rates** & productivity of mature reserves declining 5-10% p.a. (GS, 2003)
- **Non-OECD countries**: 70% of reserves & production for 120 oil & gas projects cf 21% in 1970. (GS, 2003). 78% of Top 100 reserves (GS, 2005)
- **Highest biodiversity** largely in tropical, developing countries.
- WRI: ¾ of active mines & exploratory sites **overlap** with areas of high conservation value.
- 67% the oil and gas industry's 50 most important new projects are **marine** (GS, 2003)
- More **Protected Areas**: up from 60,000 in 2000 to 102,500 in 2003. New **marine** focus.

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The business case for biodiversity offsets

- **Access to land and resources:** Significant overlap between projects and areas of high conservation value.
- **Maintaining license to operate:** Satisfy increasing stakeholder concern for conservation:
  - **Increased "regulatory goodwill":** Good relationships with regulators Can lead to faster permitting. "Preferred partner" status.
  - **Social license to operate:** Better relationships with local communities, government regulators, environmental groups, employees.
- **Reputational benefits**.
- A practical **tool** for managing social and environmental risks and liabilities.
- **Flexibility:** location/scale of rehabilitation; third party implementation/liability.
- **Efficiency:** often more cost-effective than on-site rehabilitation.
- Easier **access to capital** and associated competitive advantages.
- **Influence** emerging regulation and policy. **"First mover"** advantage.

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A short history of biodiversity offsets

- **USA** system of wetland mitigation: 1970s
- **Legislation** in USA, Canada, Europe (25 countries), Brazil, Switzerland, Australia
- **Policy development** in New Zealand, Uganda, Mexico, Madagascar, France etc.
- **Investor interest** IFC, Equator Banks, fund managers
- **Mining companies and associations:**
  Rio Tinto, Anglo American, Newmont, International Council of Mining and Metals.
  (Rio Tinto policy: 'net positive effect' - through biodiversity offsets.)
- **Oil & gas:** Shell, BP, Chevron Texaco, Statoil.
- **Other sectors:** Walmart, Du Pont

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Vision

All future major development projects

(in the private and public sectors alike),

and certainly those which will have a *significant* impact on biodiversity,

should ensure that they bring about no net loss

(and preferably a net gain) in biodiversity.

BBOP: Objectives and Structure

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❶ SIX PILOT PROJECTS:

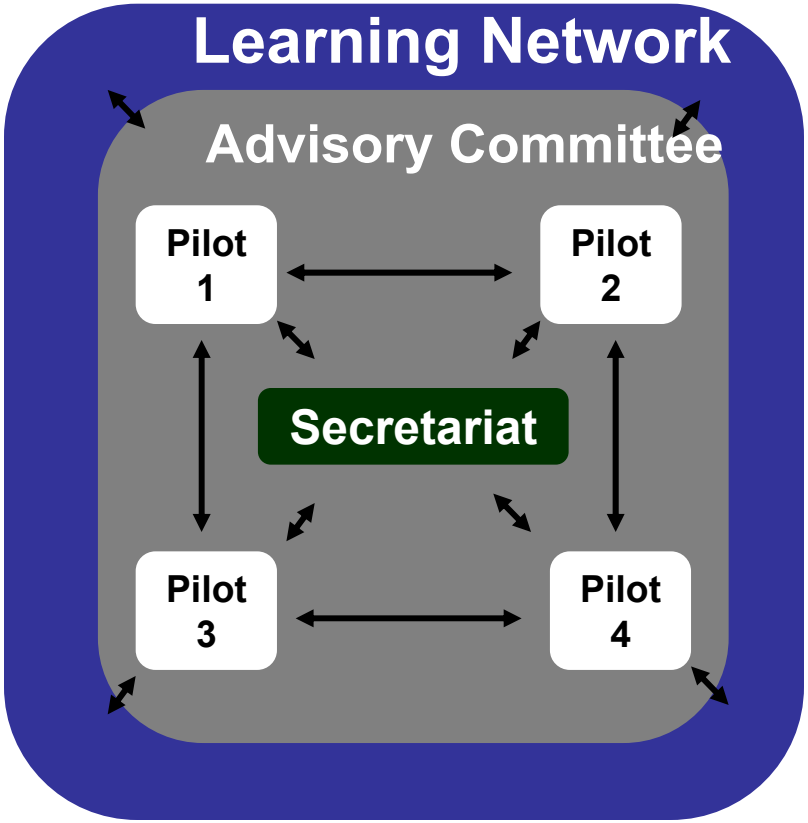
Portfolio of pilot projects worldwide demonstrating "no net loss" of biodiversity and livelihood benefits.

❷ TOOLKIT:

"How to" toolkit on offset design and implementation; Principles.

❸ POLICY:

Influence policy on offsets to meet conservation and business objectives.



BBOP: Advisory Committee

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- Anglo American
- Birdlife International
- Cambridge Centre for Conservation Policy
- City of Bainbridge Island
- Conservation International
- Department of Sustainability & Environment, Victoria, Australia
- Dynatec
- Fauna and Flora International
- Forest Trends
- Insight Investment
- International Finance Corporation
- IUCN, The World Conservation Union
- KfW Bankengruppe
- Newmont
- Shell
- Sierra Gorda Biosphere Reserve, Mexico
- Southern Rift Landowners Association, Kenya
- Rio Tinto
- The Biodiversity Neutral Initiative
- The Centre for Research-Information-Action for Development in Africa
- The London Zoological Society
- The Ministry of Ecology and Sustainable Development, France
- The National Ecology Institute, Mexico
- The National Environmental Management Authority, Uganda
- The Nature Conservancy
- The Royal Botanic Gardens, Kew
- The South African National Biodiversity Institute
- Tulalip Tribes
- The United Nations Development Program (Footprint Neutral Initiative)
- The US Fish and Wildlife Service
- Wageningen University, Netherlands
- The Wildlife Conservation Society

BBOP: Learning Network

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Over 350 members, including:

- ABN-Amro
- BG Group
- Earthcall
- Fundaçao Boticario
- Goldman Sachs
- The Inter-American Development Bank
- The International Council on Mining and Metals
- The International Petroleum Industry Environmental Conservation Association;
- The Secretariat of the Convention on Biological Diversity;
- The World Bank
- The World Bank Institute
- The World Resources Institute
- The World Wildlife Fund

… and…

- The Katoomba Group (over 200 international experts dedicated to advancing markets for ecosystem services)

the katoomba group

What does a pilot project entail?

- Goal of ‘no net loss’ or ‘net gain’ of biodiversity
- Follow mitigation hierarchy
- Quantify impact and offset
- Identify and assess offset options
- Define and finance long-term offset management

- Attend some BBOP meetings
- Contribute to Offset Tool development
- Publish pilot project case study

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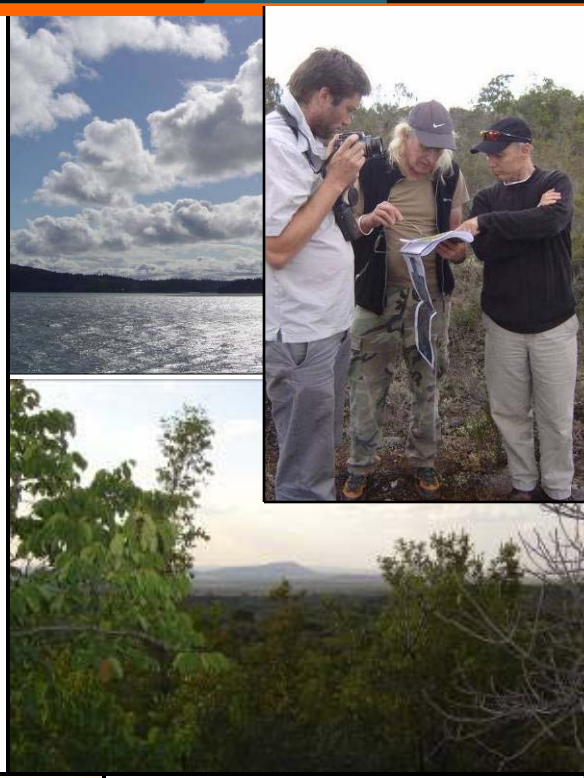
Current BBOP pilot projects

- Shell Pearl GTL project, Qatar
- Newmont gold mine, Ghana
- Anglo American platinum mine, South Africa
- Ambatovy Nickel mine, Madagascar
- Bainbridge real estate, USA
- Road and Maasai tourism lodges, Kenya
- Rio Tinto has committed a pilot



Offset: livelihood component

- Address **underlying causes** of loss of biodiversity at offset sites
- Meet biodiversity-related **livelihood** needs of local communities (e.g food, energy)
- Link offsets to achieving priority **development** outcomes.

www.forest-trends.org/biodiversityoffsetprogram

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The Business and Biodiversity Offset Program (BBOP) is a new partnership between companies, governments and conservation experts to explore biodiversity offsets. We are:

- Demonstrating conservation and livelihood outcomes in a portfolio of biodiversity offset pilot projects;
- Developing, testing, and disseminating best practice on biodiversity offsets; and
- Contributing to policy and corporate developments on biodiversity offsets so they meet conservation and business objectives.

© CI, Bill Konstant

The BBOP partners wish to show, through a portfolio of pilot projects in a range of industry sectors, that biodiversity offsets can help achieve significantly more, better and more cost-effective conservation outcomes than normally occurs in infrastructure development. The BBOP partners also believe that demonstrating no net loss of biodiversity can help companies secure their license to operate and manage their costs and liabilities.

Our vision and expectation is that biodiversity offsets will become a standard part of business practice for those companies with a significant impact on biodiversity. The routine mainstreaming of biodiversity offsets into development practice will result in long-term and globally significant conservation outcomes.

We thank our current sponsors:

Richard and Rhoda Goldman Fund

ALCOA MOORE FOUNDATION PROFOR USAID

SECRETARIAT FOREST TRENDS CONSERVATION INTERNATIONAL

Announcement:
BBOP Meets with President of Madagascar

Upcoming Events:

2nd Learning Network Meeting
29 Septemeber 2006
South Africa

hosted by the South African National Biodiversity Institute
details to follow

Biodiversity offsets are conservation actions designed to compensate for the unavoidable impact on biodiversity caused by infrastructure projects, to ensure "no net loss," and, preferably, a net gain of biodiversity. Offsets are only appropriate in the context of

Internet

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Some key offset issues

How to establish whether and when an offset is appropriate?

- Go/No Go
- Values
- Offsetable/Not Offsetable
- Mitigation Hierarchy

Metrics: how to quantify impact losses and offset gains?

- Biodiversity Structure and Composition
- Ecological Process and Function
- Socioeconomic and Cultural aspects

Implementation: how to make an offset succeed in practice?

- Roles & responsibilities
- Financial assurance
- Legal structures, institutional arrangements
- Monitoring, enforcement

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Contacts

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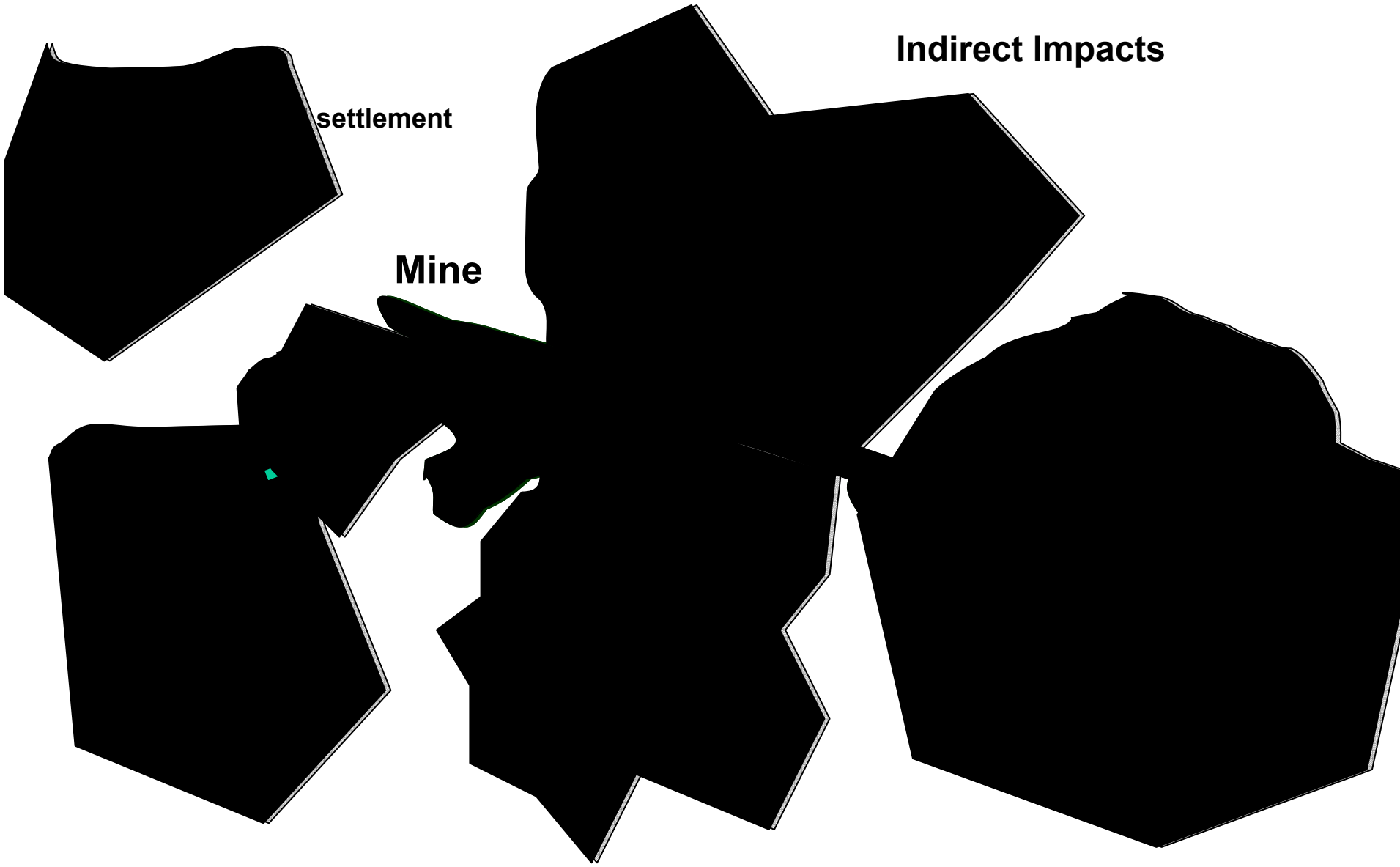
Direct and indirect impacts



The Offset Process and BBOP Tools

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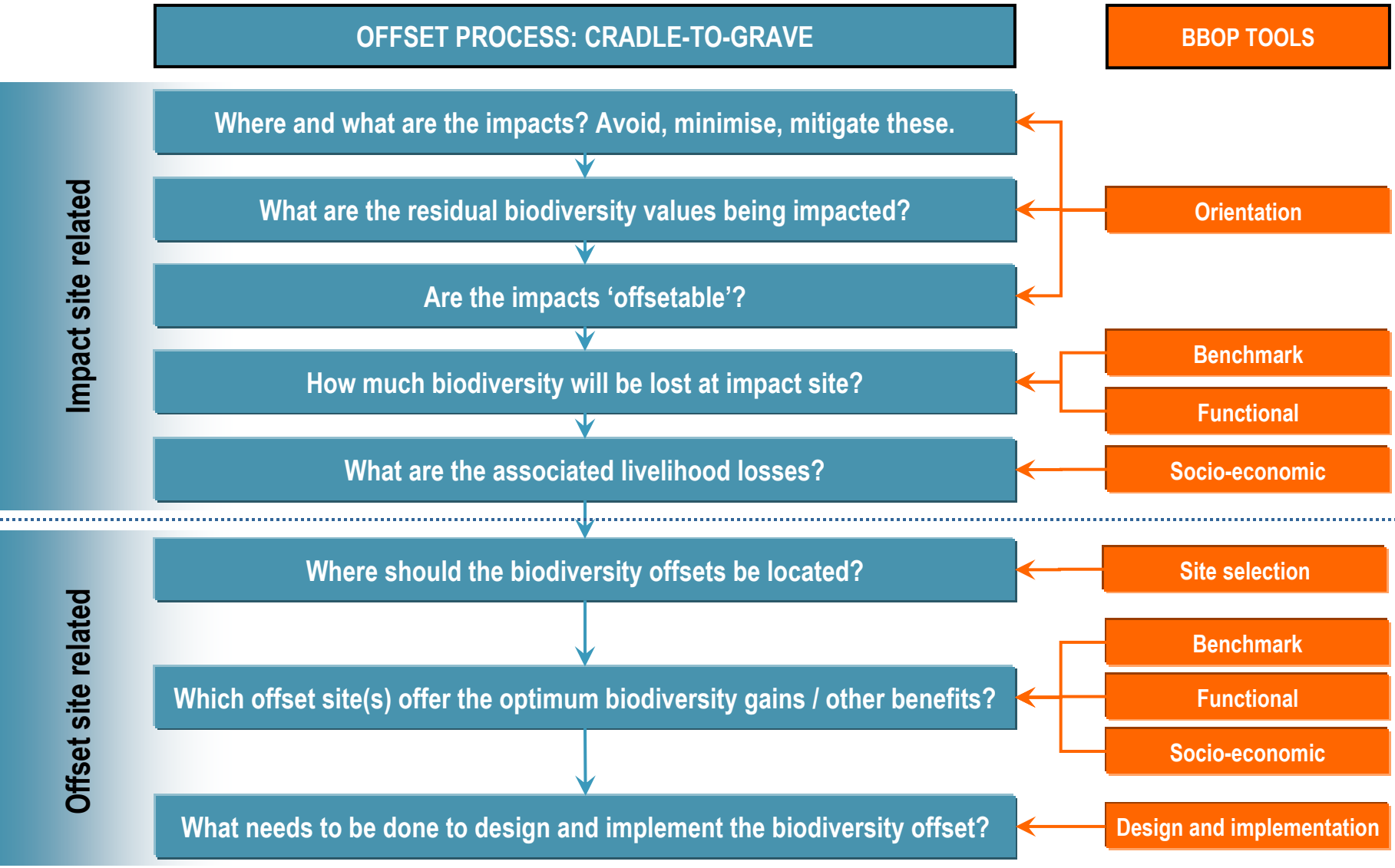
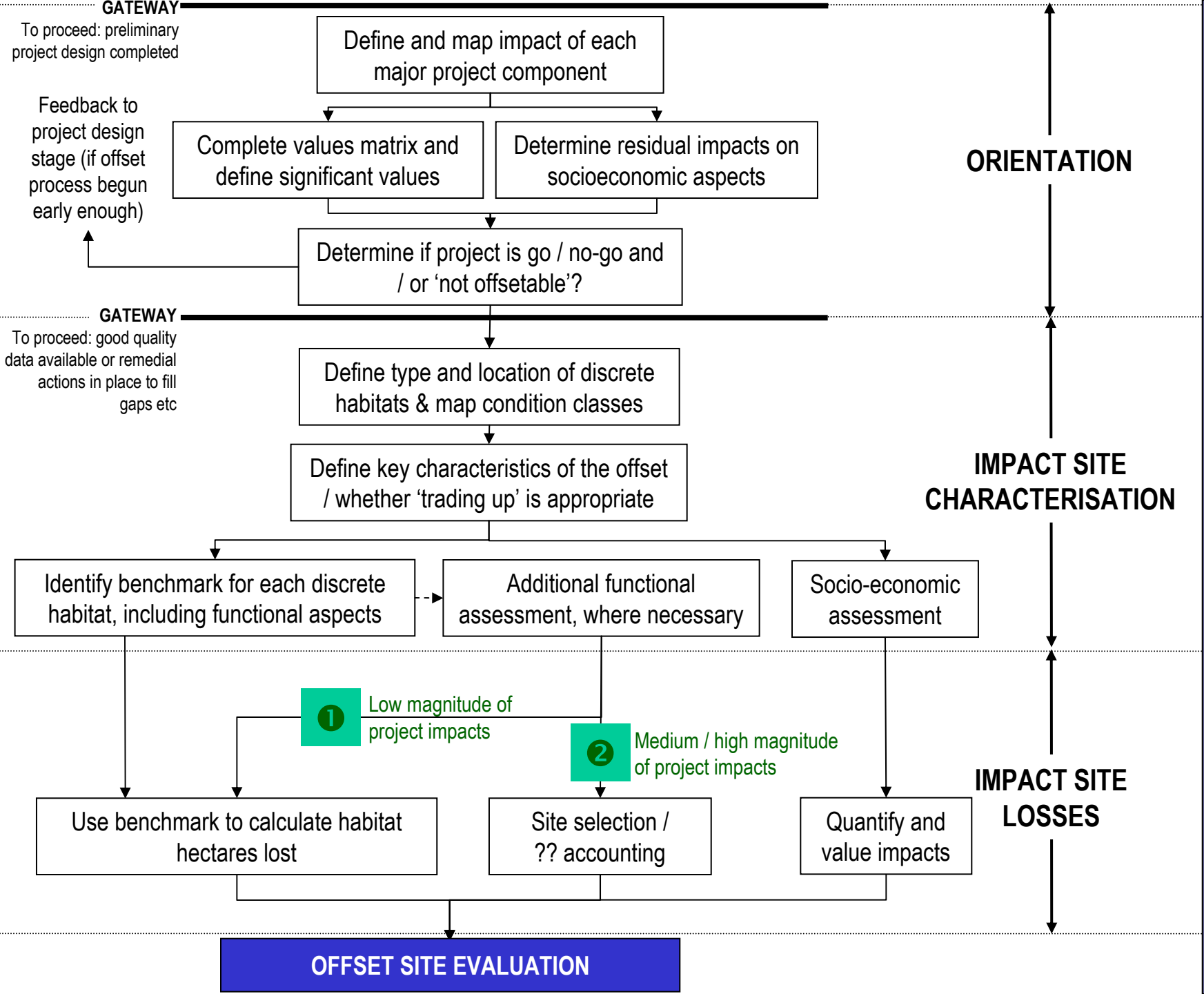
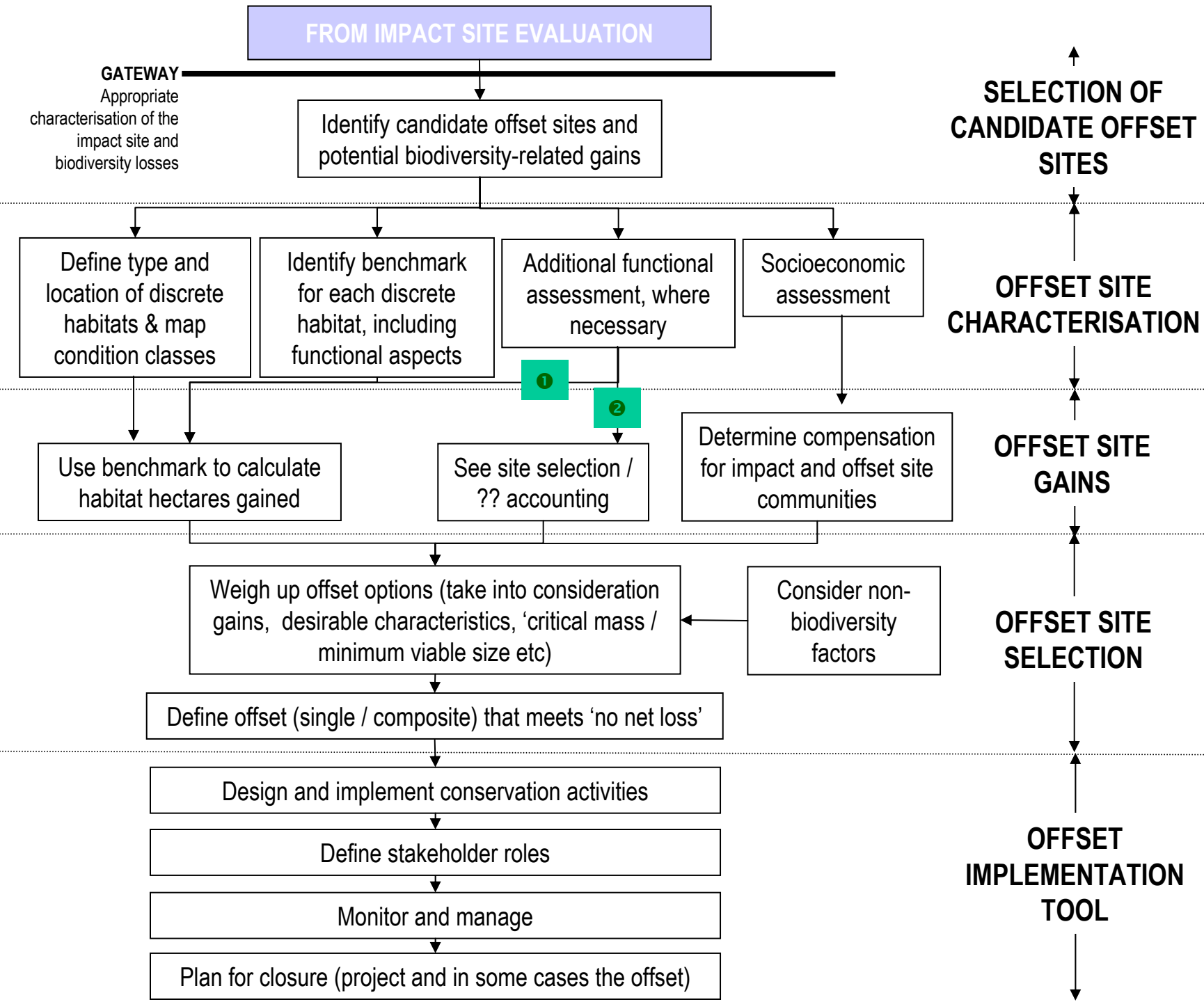



GATEWAY
To proceed: preliminary project design completed
Define and map impact of each major project component
Feedback to project design stage (if offset process begun early enough)
Complete values matrix and define significant values
Determine residual impacts on socioeconomic aspects
Determine if project is go / no-go and / or 'not offsetable'?
ORIENTATION
GATEWAY
To proceed: good quality data available or remedial actions in place to fill gaps etc
Define type and location of discrete habitats & map condition classes
Define key characteristics of the offset / whether 'trading up' is appropriate
IMPACT SITE CHARACTERISATION
Identify benchmark for each discrete habitat, including functional aspects
Additional functional assessment, where necessary
Socio-economic assessment
1
Low magnitude of project impacts
2
Medium / high magnitude of project impacts
Use benchmark to calculate habitat hectares lost
Site selection / ?? accounting
Quantify and value impacts
IMPACT SITE LOSSES
OFFSET SITE EVALUATION
BBOP - IMPACT SITE EVALUATION


FROM IMPACT SITE EVALUATION
GATEWAY
Appropriate characterisation of the impact site and biodiversity losses
Identify candidate offset sites and potential biodiversity-related gains
SELECTION OF CANDIDATE OFFSET SITES
Define type and location of discrete habitats & map condition classes
Identify benchmark for each discrete habitat, including functional aspects
Additional functional assessment, where necessary
Socioeconomic assessment
OFFSET SITE CHARACTERISATION
1
2
Use benchmark to calculate habitat hectares gained
See site selection / ?? accounting
Determine compensation for impact and offset site communities
OFFSET SITE GAINS
Weigh up offset options (take into consideration gains, desirable characteristics, 'critical mass / minimum viable size etc)
Consider non-biodiversity factors
OFFSET SITE SELECTION
Define offset (single / composite) that meets 'no net loss'
Design and implement conservation activities
Define stakeholder roles
Monitor and manage
Plan for closure (project and in some cases the offset)
OFFSET IMPLEMENTATION TOOL
BBOP - OFFSET SITE EVALUATION

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What can be considered a 'gain'? ('additionality')

	amount	time period	probability
active restoration	expected increase per unit area relative to benchmark	10-20 years?	of success, given environmental & mgt. uncertainties
stopping degradation	expected reduction of existing decrease per unit area (wrt benchmark)	as above	of success, given environmental & mgt. uncertainties
averted risk	expected magnitude of loss if risk is realised	as above	likelihood of risk being realised

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Ecosystem function aspects of offsets

- **Some key questions:**
  - When do functional aspects need to be assessed beyond the selection of proxies in the benchmark?
  - How to identify the subset of functional aspects to be thus assessed?
  - Is it adequate to assess loss/gain in function qualitatively, or are quantitative assessments sometimes needed?
  - How to assess – qualitatively and / or quantitatively – the impact of the project on the ecosystem functions at/around the impact site and offset site(s)?
  - How to define and measure key threshold terms such as “significant impact”, “moderate impact”, “insignificant impact”, “critical (ecosystem function/service)”?