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Biodiversity Offsets & Conservation Banking: A tool for West Africa?

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1. Introduction to

- Biodiversity offsets
- Business and Biodiversity Offset Programme

2. Outlining

- Conservation banking
- Possibilities for West Africa

Why consider biodiversity offsets?

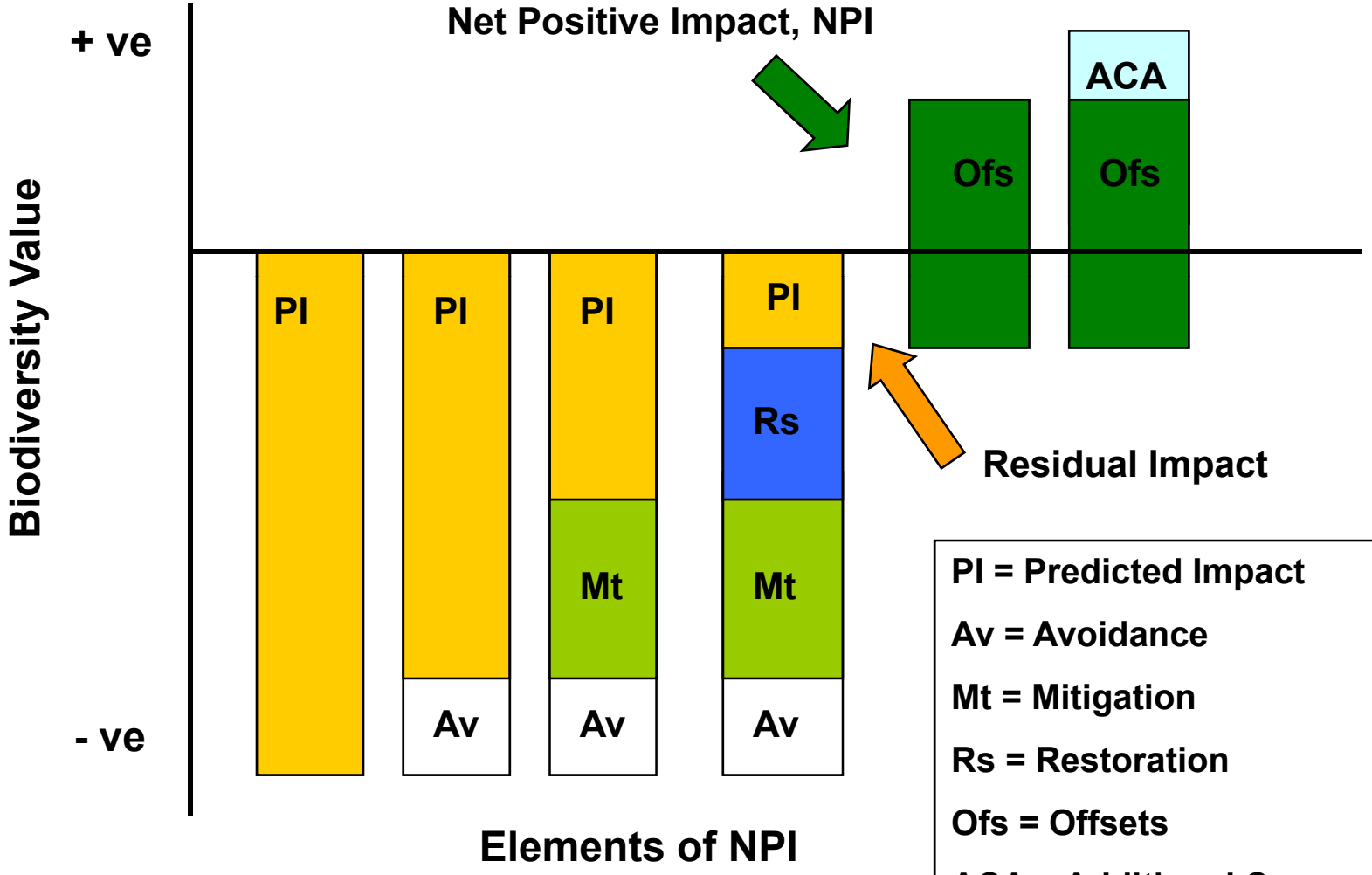
- **Mainstream** conservation into economic decision-making; internalise the costs of conservation
- Private sector takes **responsibility** for its impacts
- Tool for meeting international **Convention** obligations (CBD, CITES, Ramsar, CMS) while supporting development goals

  Pressures on Ghana's biodiv e.g. oil and gas
- Source of new and additional conservation **finance**
- **Ecological** sustainability:

  "no net loss" → "net positive impact"
- **Social** equity:

  deliver sustainable livelihoods
  → poverty reduction
- **Incentive** for conservation

The mitigation hierarchy and biodiversity offsets



Pl = Predicted Impact

Av = Avoidance

Mt = Mitigation

Rs = Restoration

Ofs = Offsets

ACA = Additional Conservation Actions

Source: Rio Tinto

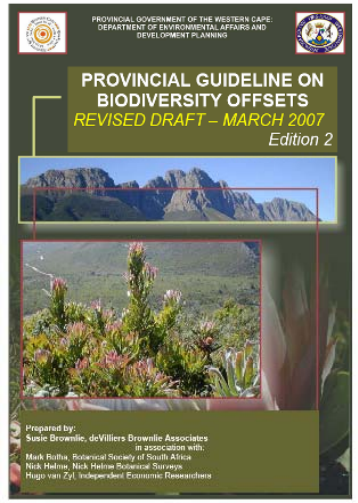
Definition

Biodiversity offsets are measurable conservation outcomes resulting from actions designed to compensate for significant residual adverse biodiversity impacts arising from project development[1] after appropriate prevention and mitigation measures have been taken.

The goal of biodiversity offsets is to achieve no net loss and preferably a net gain of biodiversity on the ground with respect to species composition, habitat structure, ecosystem function and people's use and cultural values associated with biodiversity.

Why should developers implement biodiversity offsets ?

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



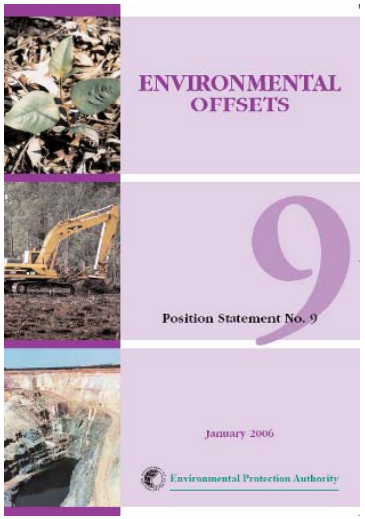
2. **The business case** for voluntary biodiversity offsets:

Good practice:

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

Bad practice:

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



3. **Investor Requirements**

Three ways to implement offsets:

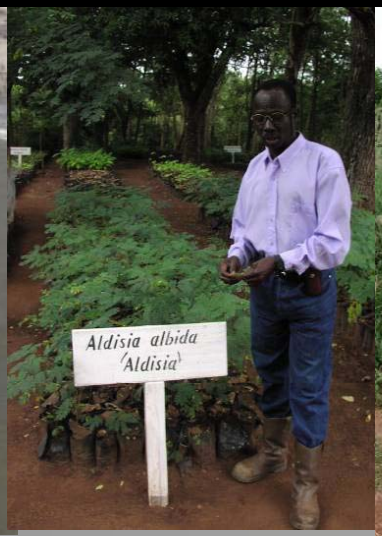
- Developer and/or partners (NGO, consultant, multi-stakeholder group) undertake the offset

- Payment to a government authority ‘in lieu’

- Developer buys sufficient ‘credits’ from a landowner or conservation bank to offset its impacts.

BBOP
Business and Biodiversity Offsets Programme

Who are we?



BBOP: Phase 1 Objectives

❶ SIX PILOT PROJECTS:

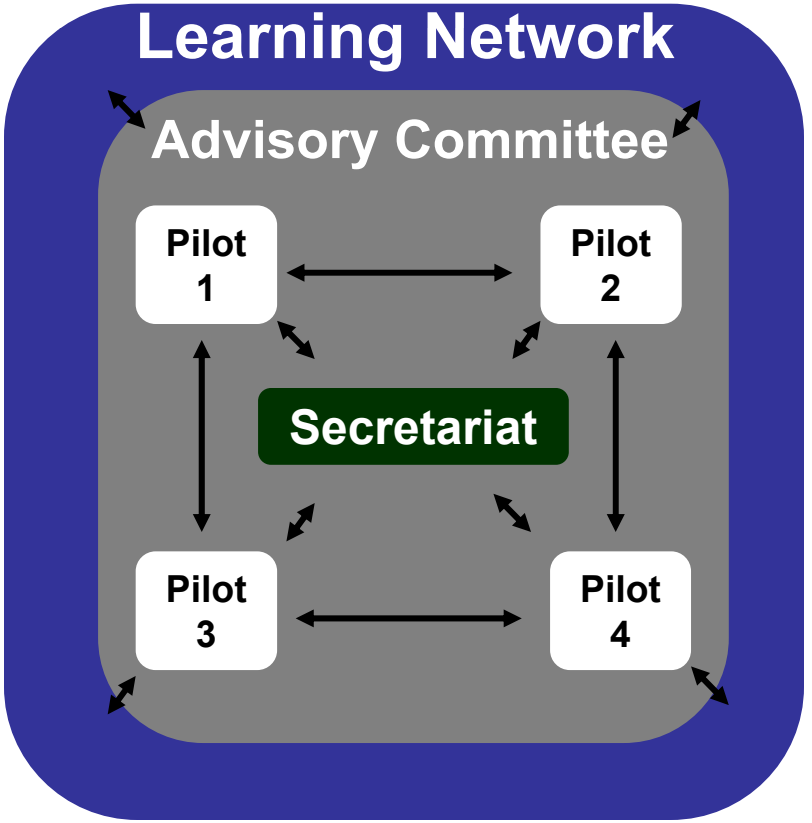
Portfolio of pilot projects worldwide demonstrating "no net loss" of biodiversity and livelihood benefits.

❷ TOOLKIT:

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

❸ POLICY:

Influence policy on offsets to meet conservation and business objectives.

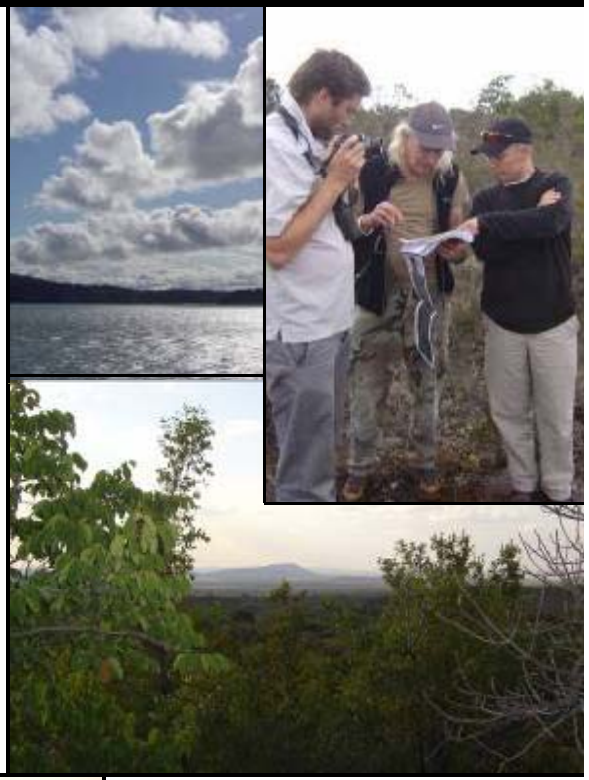


BBOP: Advisory Committee

Anglo American; Biodiversity Neutral Initiative; BirdLife International; Botanical Society of South Africa; Brazilian Biodiversity Fund (FUNBIO); Centre for Research-Information-Action for Development in Africa; City of Bainbridge Island, Washington; Conservation International; Department of Conservation New Zealand; Department of Sustainability & Environment, Government of Victoria, Australia; Ecoagriculture Partners; Fauna and Flora International; Forest Trends; Insight Investment; the International Finance Corporation; International Institute of Environment and Development; IUCN, The International Union for the Conservation of Nature; KfW Bankengruppe; Ministry of Ecology, Energy, Sustainable Development, and Spatial Planning, France; the Ministry of Housing, Spatial Planning and the Environment, The Netherlands; National Ecology Institute, Mexico; National Environmental Management Authority, Uganda; Newmont Mining Corporation; Pact Inc.; Rio Tinto; Royal Botanic Gardens, Kew; Shell International; Sherritt International Corporation; Sierra Gorda Biosphere Reserve, Mexico; Solid Energy, New Zealand; South African National Biodiversity Institute; Southern Rift Landowners Association Kenya; The Nature Conservancy; Tulalip Tribes; United Nations Development Programme (Footprint Neutral Initiative); United States Fish and Wildlife Service; the Wildlife Conservation Society; Wildlands, Inc.; WWF; Zoological Society of London; and the following independent consultants: Susie Brownlie; Jonathan Ekstrom; David Richards; Marc Stalmans; and Jo Treweek.

Phase 1 BBOP pilot projects

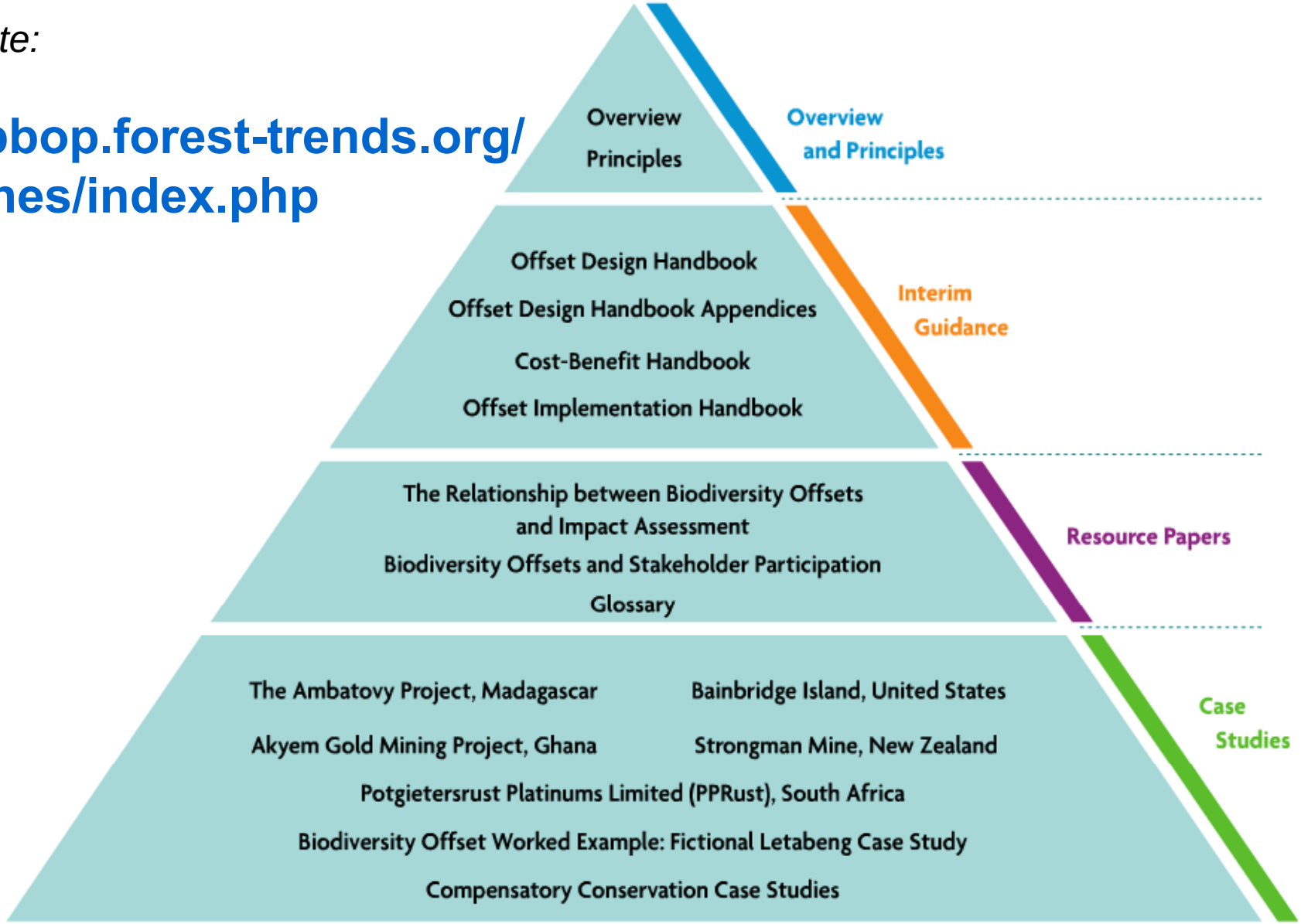
- Shell International, GTL project, Qatar
- Newmont Ghana Gold, Ghana
- Anglo American platinum mine, South Africa
- Sherritt Int'nal nickel mine, Madagascar
- Residential construction, USA
- Maasai tourism lodges and road, Kenya
- Solid Energy coal mine, New Zealand



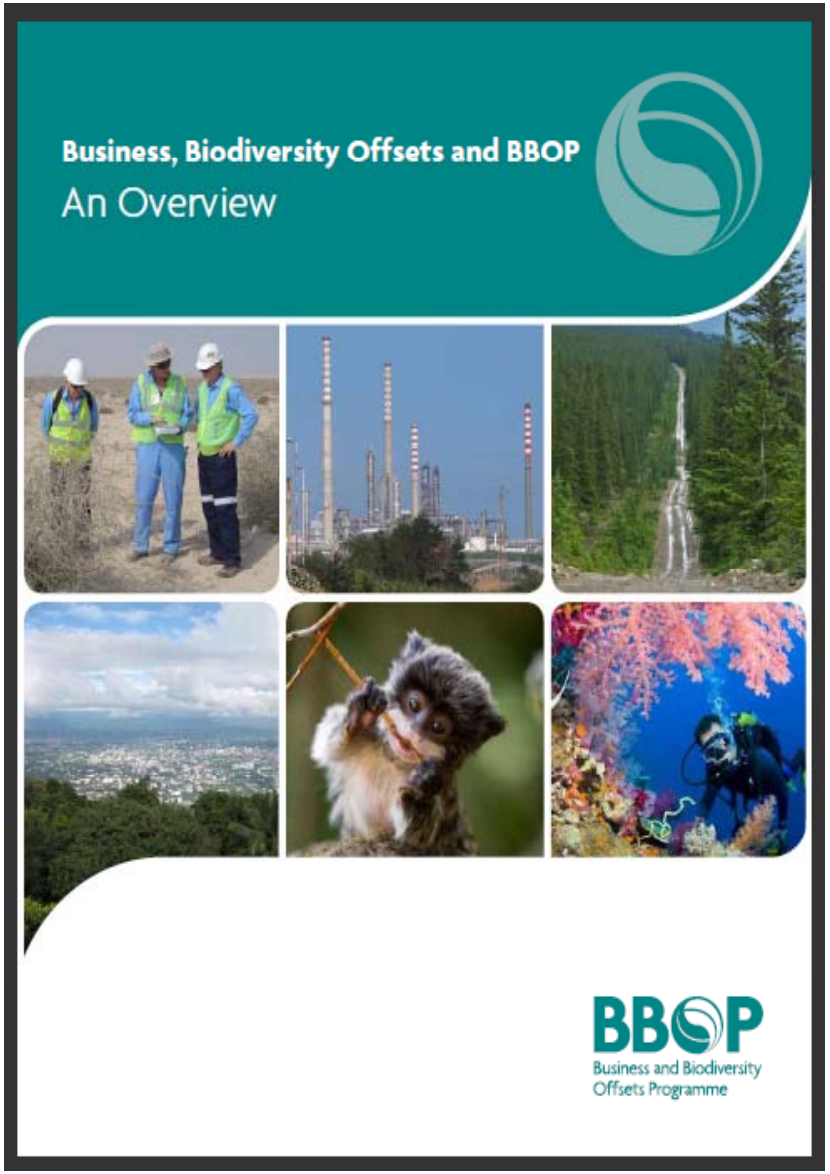
BBOP publications, August 2009

See website:

http:// bbop.forest-trends.org/guidelines/index.php



Priorities to July 2012:



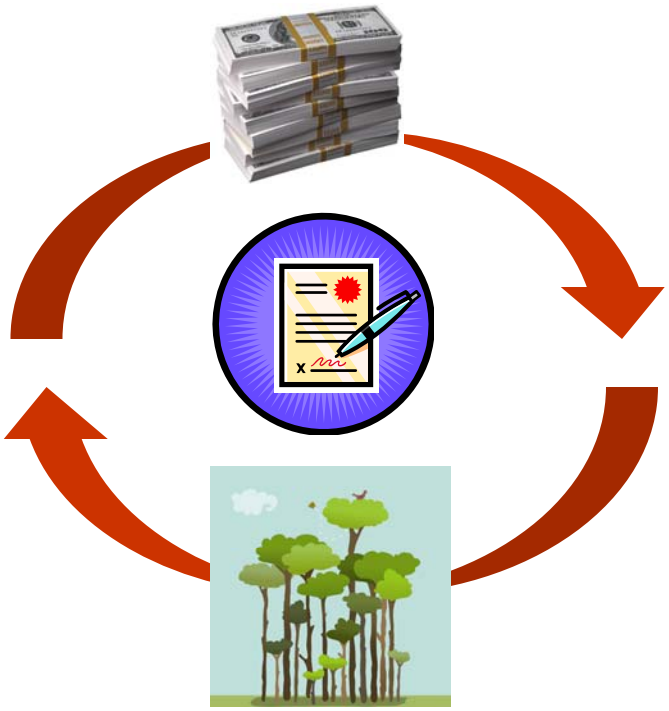
- **POLICY**: Country-level partnerships, advice on offset policy development, land-use/bioregional planning, aggregated offsets, conservation banking
- **PILOTS**: More & varied pilots (sectors, countries)
- **GUIDELINES**: Improved guidelines on offset design and implementation
- **TRAINING**: Training and capacity building
- **COMMUNICATIONS**: Communications and BBOP's work as a global forum
- **ASSURANCE**: Verification and auditing protocols

Principles for biodiversity offsets

1. *No net loss*
2. *Additional conservation outcomes*
3. *Adherence to the mitigation hierarchy*
4. *Limits to what can be offset*
5. *Landscape Context*
6. *Stakeholder participation*
7. *Equity*
8. *Long-term outcomes*
9. *Transparency*
10. *Science and traditional knowledge*

How can offset ‘gain’ be delivered?

- **Purchase** land (or long lease)
- **Covenant** / easement / servitude registered on land
- **Contract** with landholders (incl. Payments for Ecosystem Services)



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

An offset must show measurable, additional conservation outcomes.

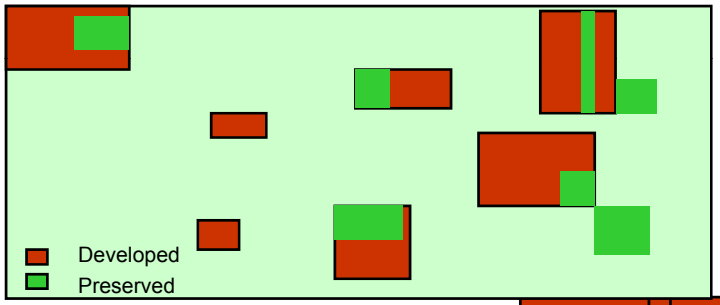
Potential gain is a product of the amount of biodiversity the offset will generate & the likelihood of success.

Actions to consider:

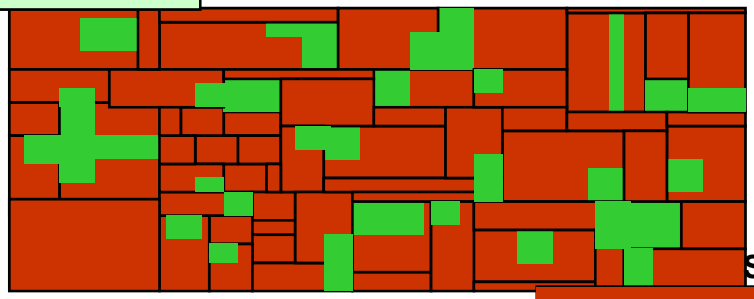
- **Active restoration** of ecosystem structure and function
- **Stopping degradation** (e.g. invasive alien removal)
- **Averting risk** (e.g. securing protection status for a threatened area)

Landscape Context

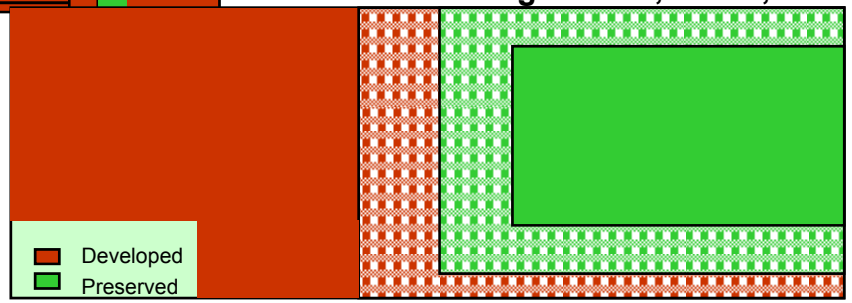
'A biodiversity offset should be designed and implemented in a landscape context. This is to achieve the expected measurable conservation outcomes, taking into account available information on the full range of biological, social and cultural values of biodiversity and supporting an ecosystem approach'.



Early, individual offsets



Unplanned development



Landscape-level planning

Sources: 2004: Insight/IUCN; White; Maze

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Benefits of conservation bank

Ecological:

- Greater ecological value
- Strategic placement
- Avoid temporal loss of habitat
- Turns a liability into an asset

Administrative

- Easier ecological monitoring
- Reduces offset costs through economies of scale
- Work to the same performance standards.
- Transfer of legal liability
- Reduces permitting time

With thanks to:

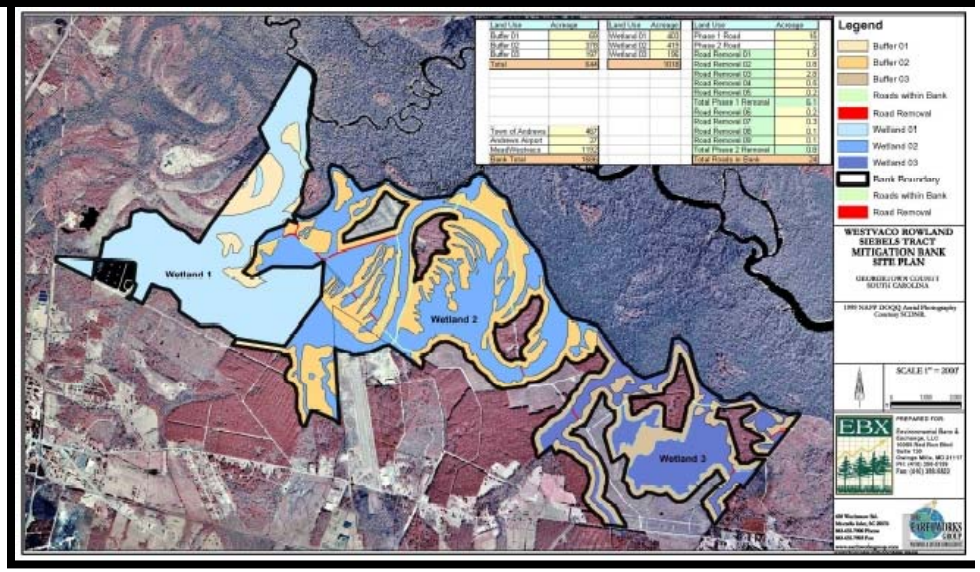
- Nathaniel Carroll, Ecosystem Marketplace
- Wayne White, Wildlands
- George Kelly, EBX
- Michael Crowe & David Parkes, DSE Victoria

What is a conservation bank?

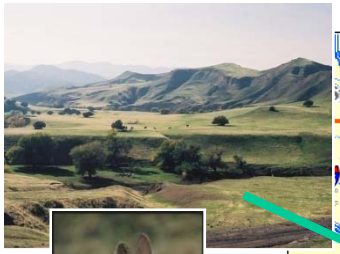
Privately or publicly owned land managed for its natural resource values.

In exchange for permanently protecting the land, the bank owner is allowed to sell habitat credits to parties who need to satisfy legal requirements for compensating environmental impacts of development projects.

(California Department of Fish and Game, in Carroll *et al*., 2009)

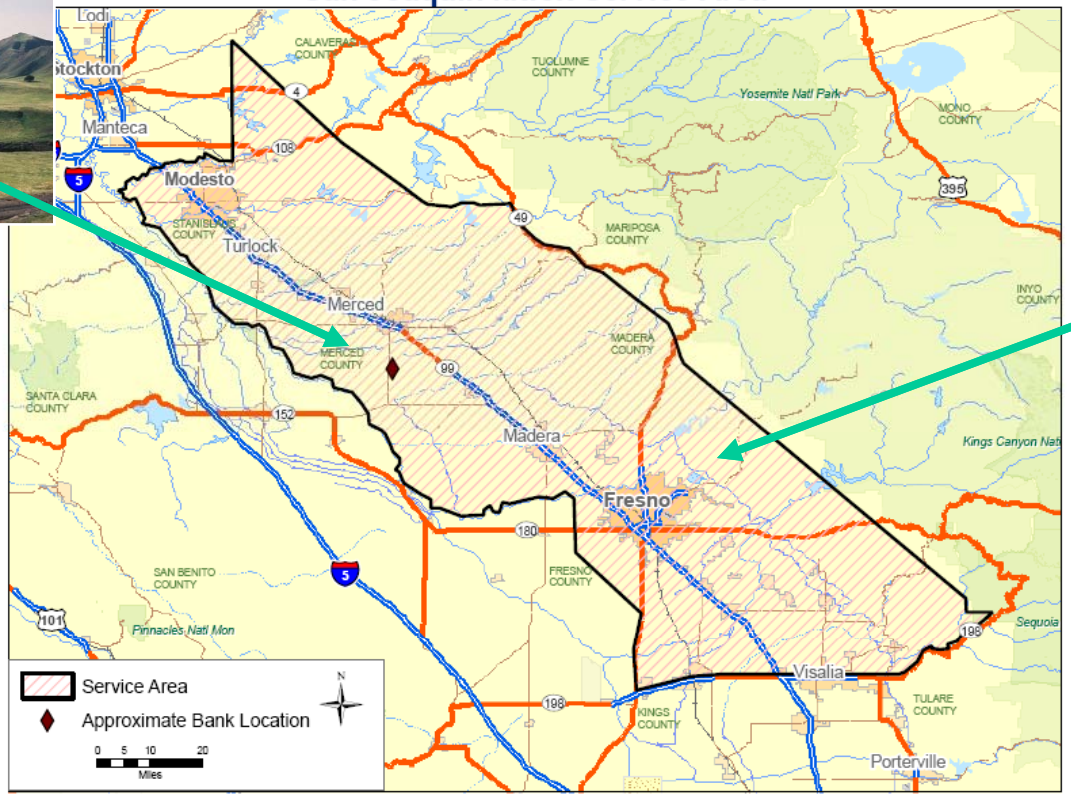


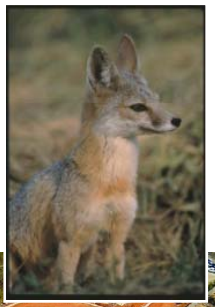
How does a conservation bank work?



- 333 acres
- Banking agreement w/ USFWS
- Management plan
- Endowment fund
- Cons easement

Vieira-Sandy Mush Road Conservation Bank
San Joaquin kitfox Service Area





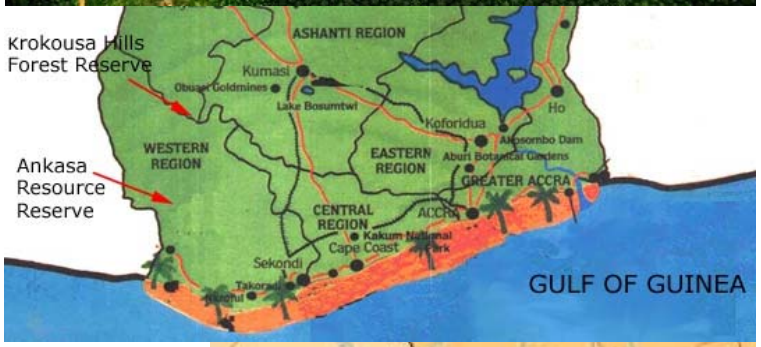
- Impact 7 acres of kit fox habitat
- Incidental take permit from FWS
-Developer buys 7 credits to satisfy permit requirement

Market snapshot: USA

- Wetland banking from early 1980's
- Species banking from early 1990's in California
- Currently ~800 wetland banks in the US
- ~115 species credit banks in the US
- Credits sell from US$4,000 to US$500,000
    - Dependent on ambient land value & demand
- 80,000 acres protected in species banks
- Market size: US$3.3 billion/year (2007)
    - US$2 billion in single offsets
    - US$1.3 billion = offset banking

Essential elements of banking

- Clear requirement / driver
- Product (e.g. ‘credit’…‘like for like or better’)
- Site Selection & Service Area
- Long term control of property
- Legal Agreement
- Science-based management plan to generate credits
- Adequate funding (permanent endowment fund)
- Monitoring and enforcement



Risks with banking

- Requirement/clear driver
- Additionality
- Regulatory capacity
- Ecological performance & enforcement
- Failure: catastrophe/bankruptcy
- Adaptation (Climate Change)
- Equity (who benefits?)
- Transaction costs
- Macro-level Strategic planning

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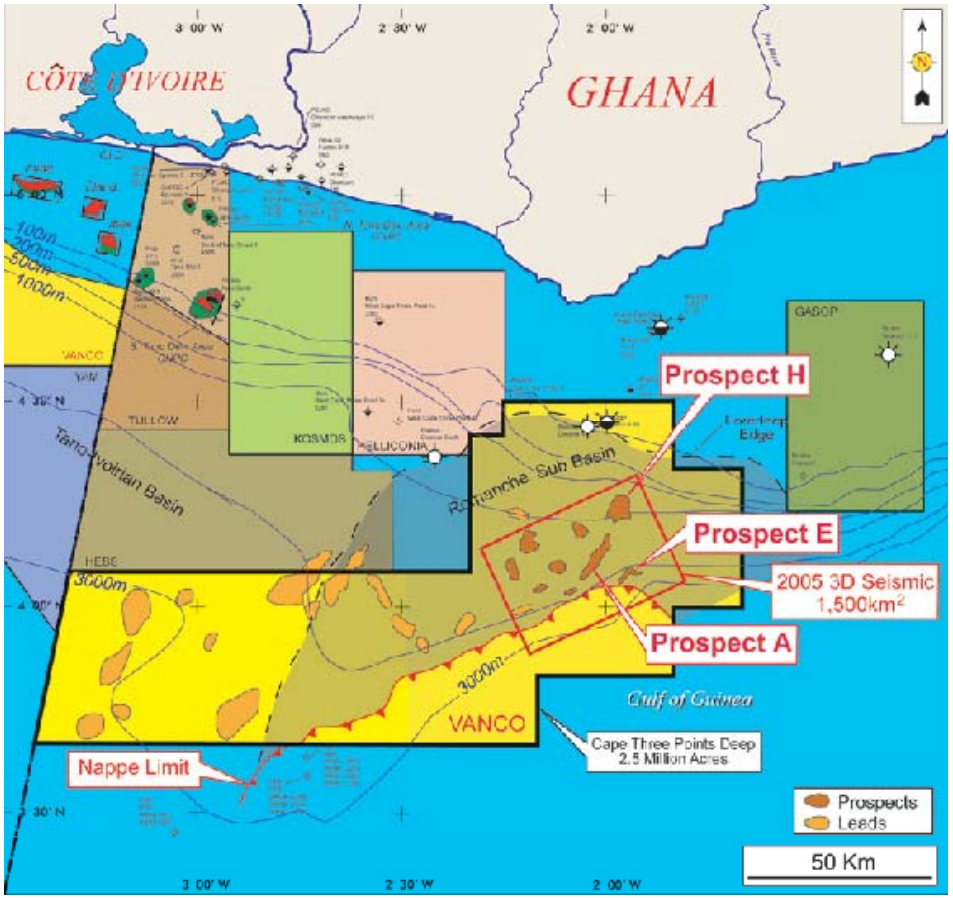
Offsets/banking could help West Africa

- **Sustainable development solution**
- **Developers take responsibility for their footprint**
- **Better ecological "bang for your buck"**
- **Supports good land-use planning (and sea!)**
- **Economies of scale**



But you need…..

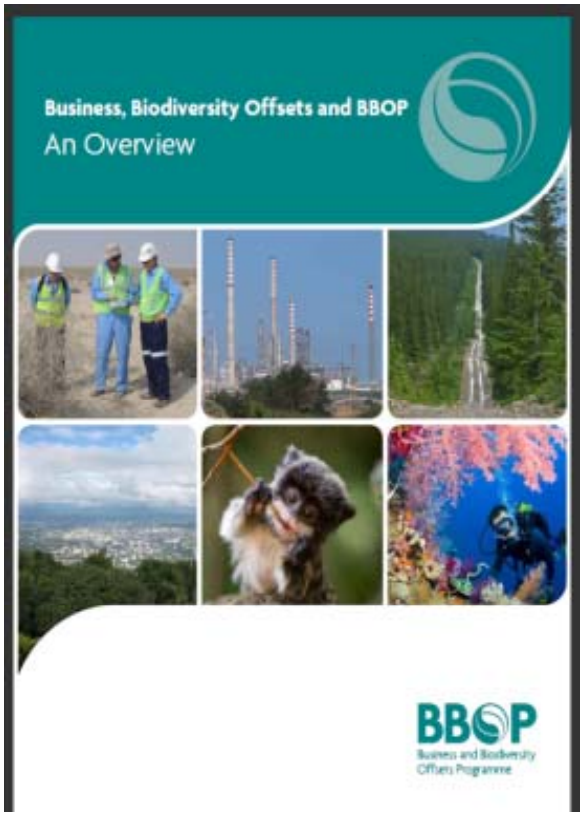
West Africa: what's needed

- **Amendments to existing laws** or policies may be necessary to **create demand** result in offsets and enable conservation banks.
  - ....to stimulate developers
  - ….and investors need legal clarity and security over long term.
- Adequate, consistent classification and **mapping of ecosystems**.
- Strategic national or **bioregional conservation plans** (to support 'trading up').
- Organise **supply** to coincide with demand when system is launched.
- **Spare a little time from REDD for biodiv!**

Thank you!

www.
forest–trends.org/biodiversityoffsetprogram/

or contact: bbop@forest-trends.org



BBOP
Business and Biodiversity Offsets Programme

Spare slides

Opportunities & Risks

Opportunities:

Conservation **(No net loss → Net gain)**

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

Business **(Economic efficiency)**

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

Policy-makers **(Sustainable development)**

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

Local communities **(Social equity)**

- means to minimise impact on livelihoods and secure additional benefits

Risks:

- No substitute for "no go" areas
- Slippery slope
- Some methodologies inadequate
- Failure to deliver
- Controversy
- No credible standards (yet)

Key biodiversity components matrix

Biodiversity Component	Intrinsic Values (Vulnerability, irreplaceability)	Use Values	Cultural Values
Species	Threatened species; restricted range and/or endemic species; congregatory species	Species providing fuel, fiber, food, medicines, etc.	Totem species
Habitats/ Communities/ Assemblages	Rare or threatened habitat types; exemplary habitats	Recreational sites	Sacred sites (e.g. sacred groves, burial grounds); sites of aesthetic importance
Whole Landscapes / Ecosystems	Climate regulation; seed dispersal; pollination	Air and water quality regulation; soil fertility; pollination	E.g. Landscape-scale sacred sites

Principles

1. *No net loss:* **A biodiversity offset should be designed and implemented to achieve *in situ*, measurable conservation outcomes that can reasonably be expected to result in no net loss and preferably a net gain of biodiversity.**

2. *Additional conservation outcomes:*

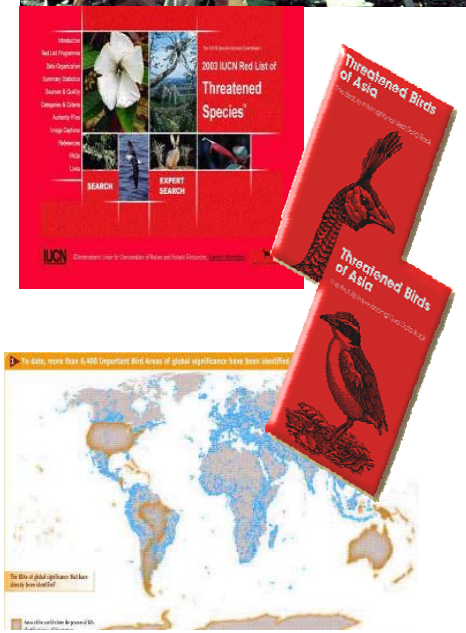
   A biodiversity offset should achieve conservation outcomes above and beyond results that would have occurred if the offset had not taken place. Offset design and implementation should avoid displacing activities harmful to biodiversity to other locations.

Principles

3. *Adherence to the mitigation hierarchy:* **A biodiversity offset is a commitment to compensate for significant residual adverse impacts on biodiversity identified after appropriate avoidance, minimization and on-site rehabilitation measures have been taken according to the mitigation hierarchy.**

4. *Limits to what can be offset:*

There are situations where residual impacts cannot be fully compensated for by a biodiversity offset because of the irreplaceability or vulnerability of the biodiversity affected.



Thresholds for offsets

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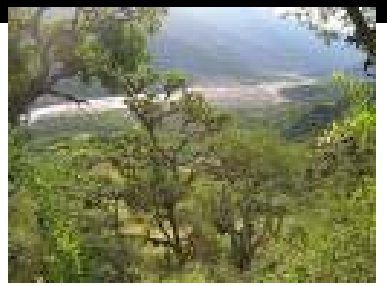
Severity of impact on biodiversity

High

Impacts too severe to be offset



What is the threshold?

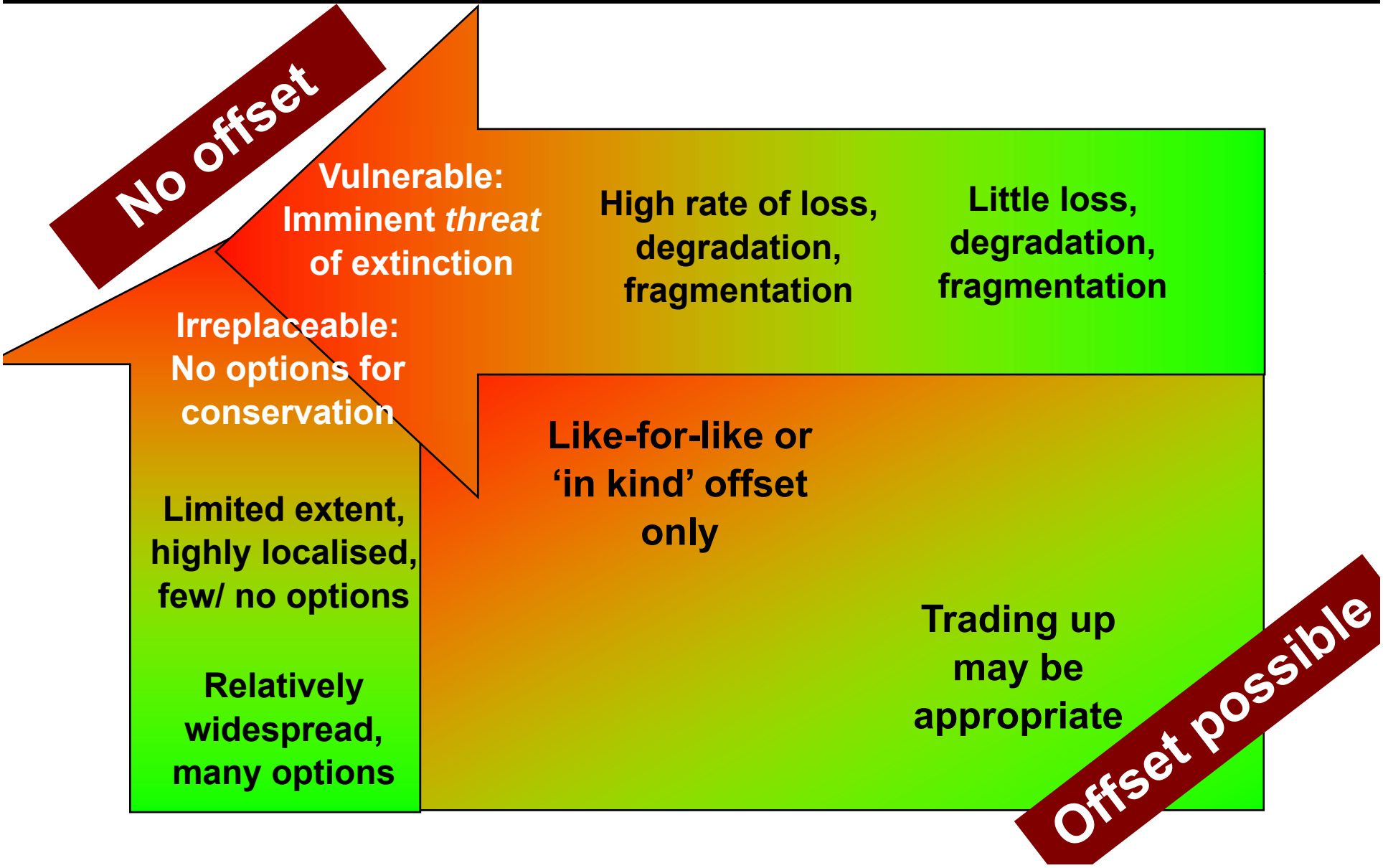
Impacts can and should be offset

Low

Impacts too small to be worth offsetting

What is the threshold?

Some impacts cannot be offset



Principles

6. ***Stakeholder participation:*** **In areas affected by the project and by the biodiversity offset, the effective participation of stakeholders should be ensured in decision-making about biodiversity offsets, including their evaluation, selection, design, implementation and monitoring.**

7. ***Equity:*** **A biodiversity offset should be designed and implemented in an equitable manner, which means the sharing among stakeholders of the rights and responsibilities, risks and rewards associated with a project and offset in a fair and balanced way, respecting legal and customary arrangements. Special consideration should be given to respecting both internationally and nationally recognised rights of indigenous peoples and local communities.**

Principles

8. Long-term outcomes:

The design and implementation of a biodiversity offset should be based on an adaptive management approach, incorporating monitoring and evaluation, with the objective of securing outcomes that last at least as long as the project's impacts and preferably in perpetuity.

Principles

9. *Transparency:* **The design and implementation of a biodiversity offset, and communication of their results to the public, should be undertaken in a transparent and timely manner.**

10. *Science and traditional knowledge:* **The design and implementation of a biodiversity offset should be a documented process informed by sound science, including an appropriate consideration of traditional knowledge.**

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Suitable contexts for aggregated offsets include situations where there are:

- Several small-scale developments which are individually insignificant but may have significant cumulative impacts (individual offsets not justified or too small scale, or transaction costs prohibitive);
- Individual developers who do not have skills or resources to deliver effective biodiversity offsets; whereas by collaborating and pooling resources, offsets would be achievable.
- A number of developers in the same sector and area of operation required to meet a shared performance standard.
- Effective coalitions in particular locations, with involvement of companies, government, communities and NGOs.
- Enabling legislative and planning frameworks are in place, preferably including reliable biodiversity or conservation plans.

A short history of biodiversity offsets

- **USA** system of wetland mitigation: 1970s
- **Legislation** in USA, Canada, Europe (27 countries), Brazil, Switzerland, Australia, China, Mexico, South Africa
- **Policy development** in several countries (e.g. Brazil, NZ, UK, EU)
- **Investor interest** IFC, Equator Banks, fund managers
- **Mining companies and associations:** RioTinto, AngloAmerican, Newmont, Sherritt 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

Key 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?

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

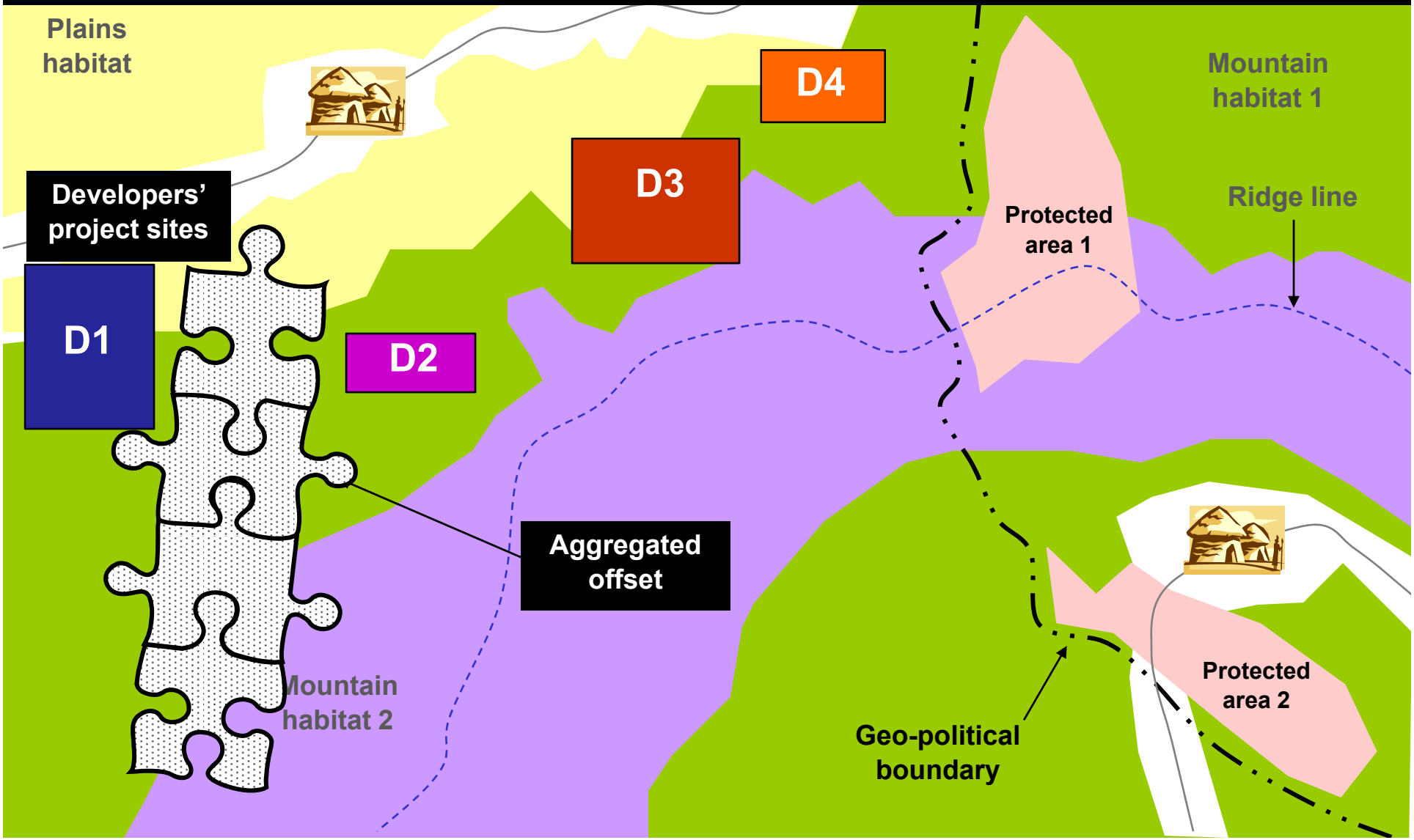
Offset activities and location

- Landscape level planning
- Delivery
- Out of kind and trading up

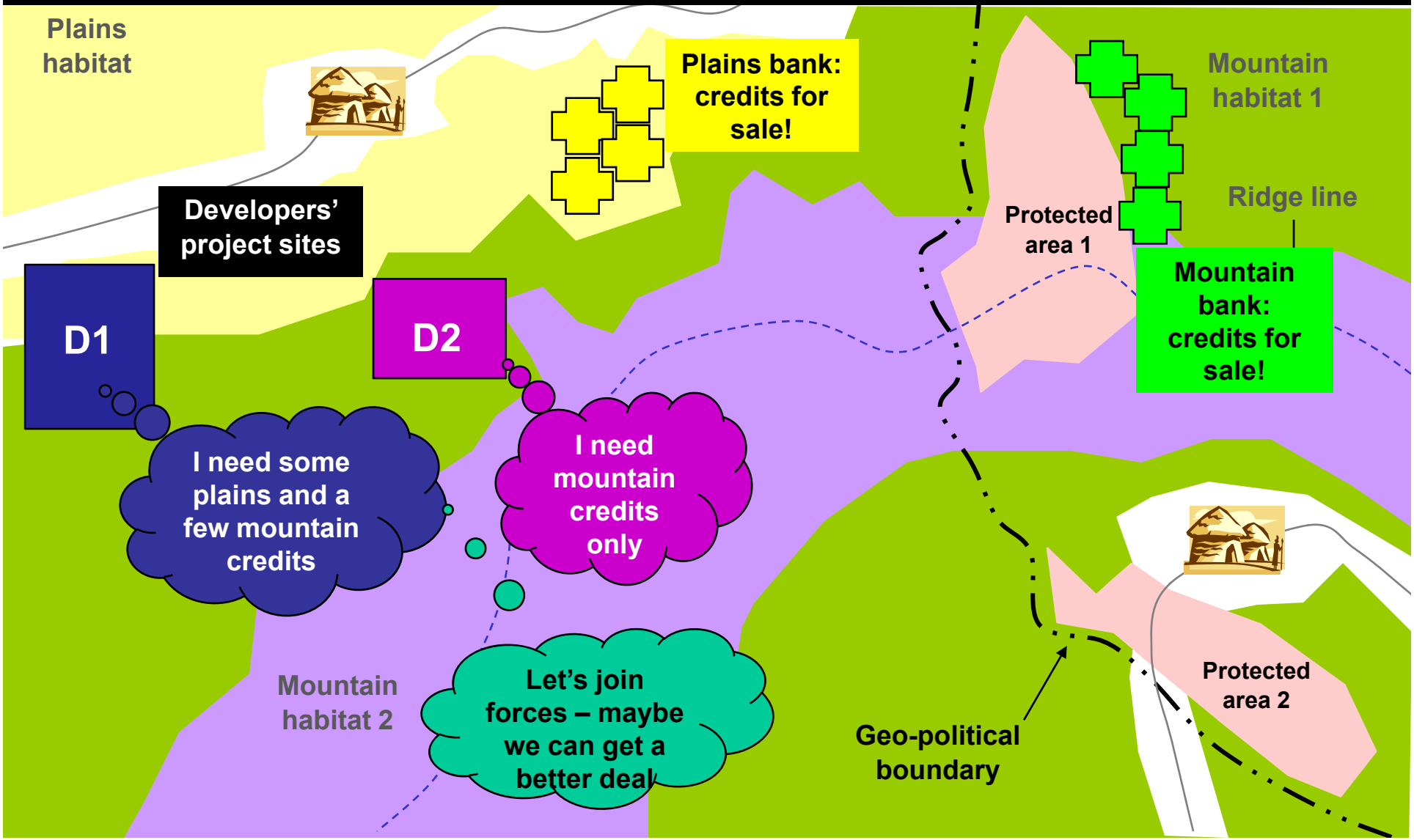
Implementation: how to make an offset succeed in practice?

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

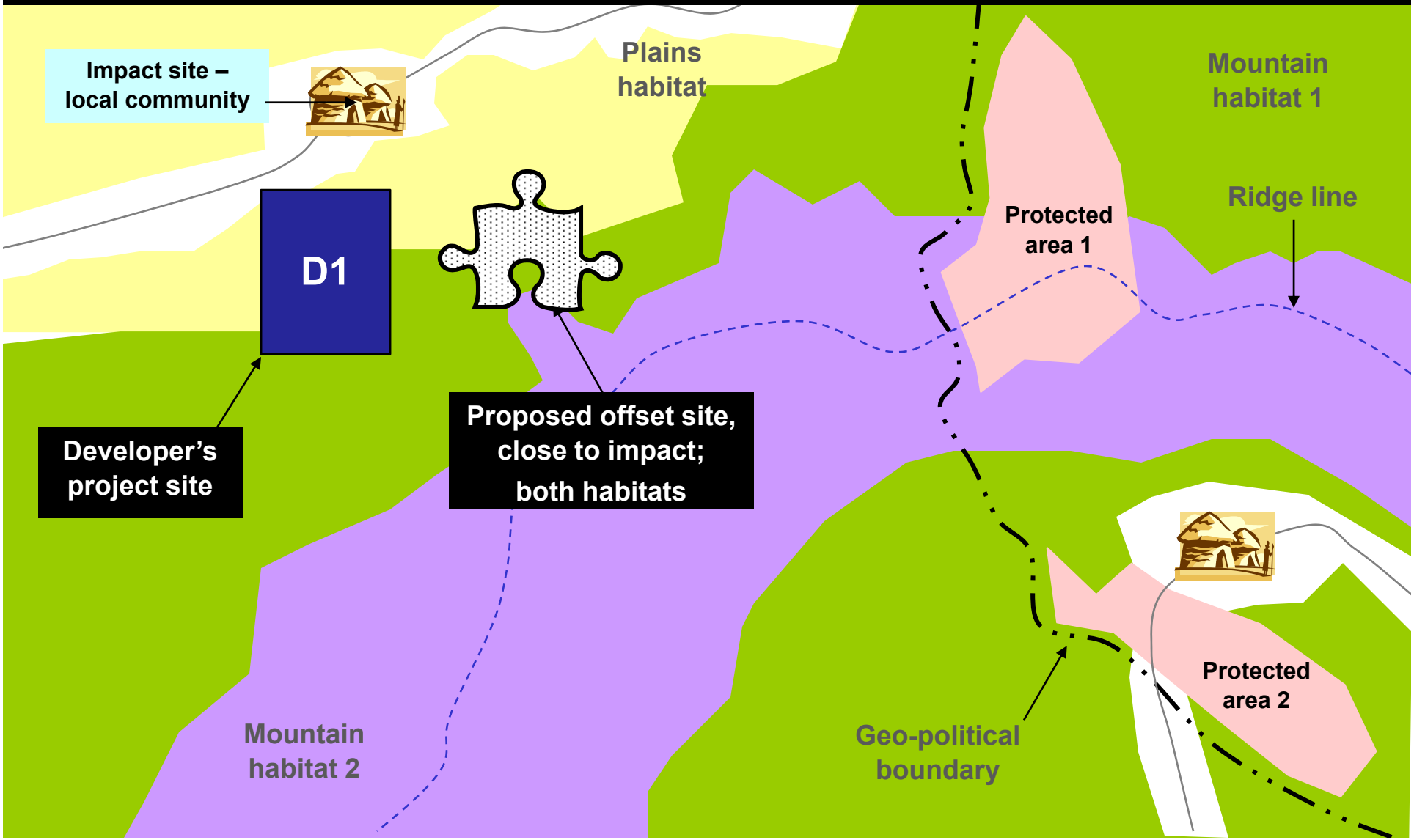
Multiple developers, Aggregated offset



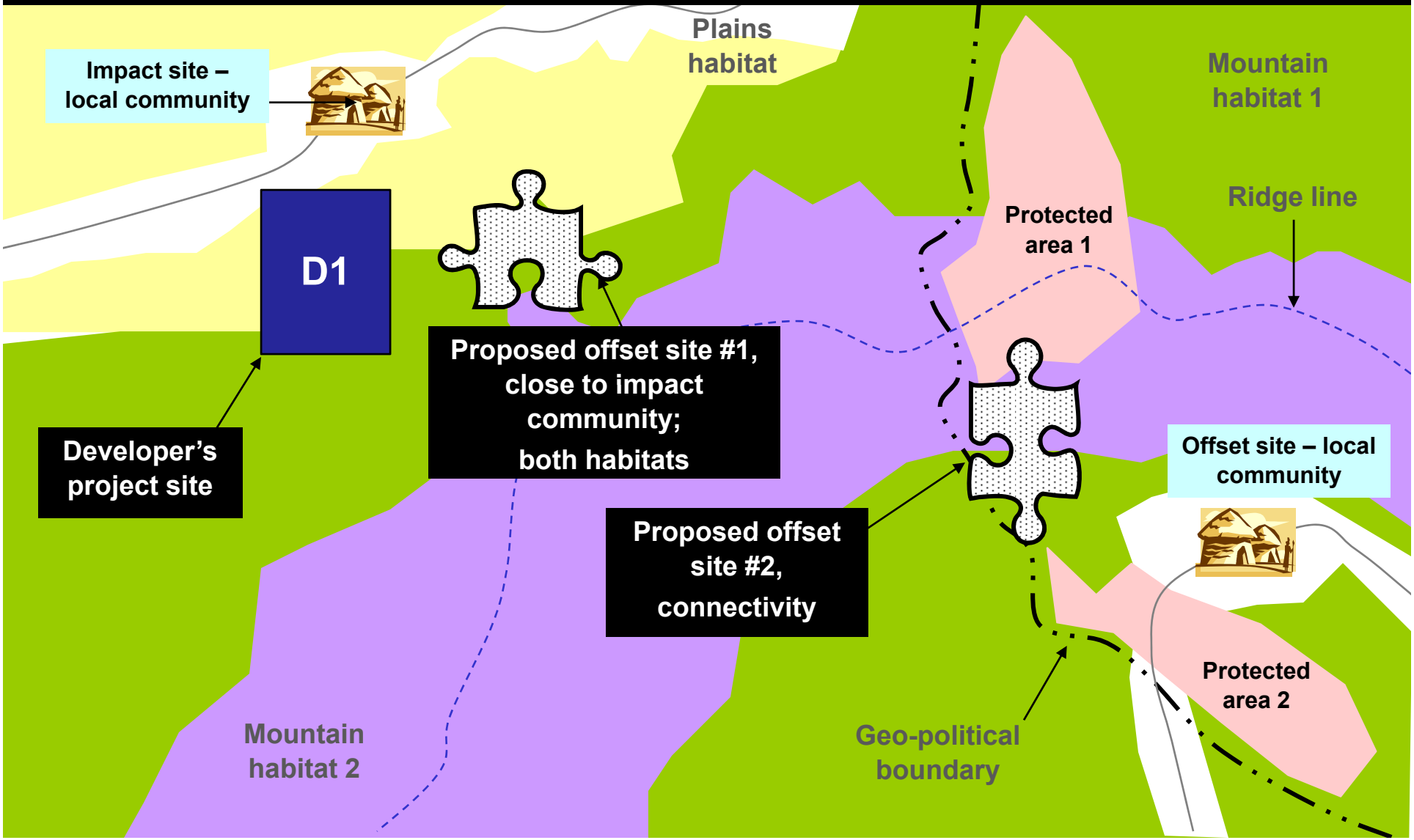
Biobanks and offsets



Single developer, single offset



Single developer, composite offset




Small mitigation plots rarely work.