

Overview of the basic classes of Biodiversity Offsets

Marianne Darbi, IÖR Dresden

Towards no net loss and beyond: addressing practical challenges for biodiversity offsetting in the UK, 22 June 2010, London



Outline

1. Biodiversity Offsets: What? Why? Who?
2. Characteristics of Biodiversity Offsets and implementation
3. Compensation approaches worldwide
4. Kinds of Biodiversity Offsets
 - a) Mandatory
 - b) Voluntary
5. Conclusion

1. Biodiversity Offsets: What? Why? Who?

What?

“Biodiversity Offsets are **conservation activities** intended to **compensate** for the residual, unavoidable harm to biodiversity caused by development projects” *ten Kate et al.*

2004

“Biodiversity offsets seek to ensure that **unavoidable adverse environmental impacts** of development are **counterbalanced** by environmental gains”

Escorcio Bezerra 2006



What?

Why?

- Polluter Pays Principle
- Environmental legislation and liability
- Business Initiatives and Corporate Social Responsibility



What?

Why?

Who?

- Governments
- Business
- NGOs

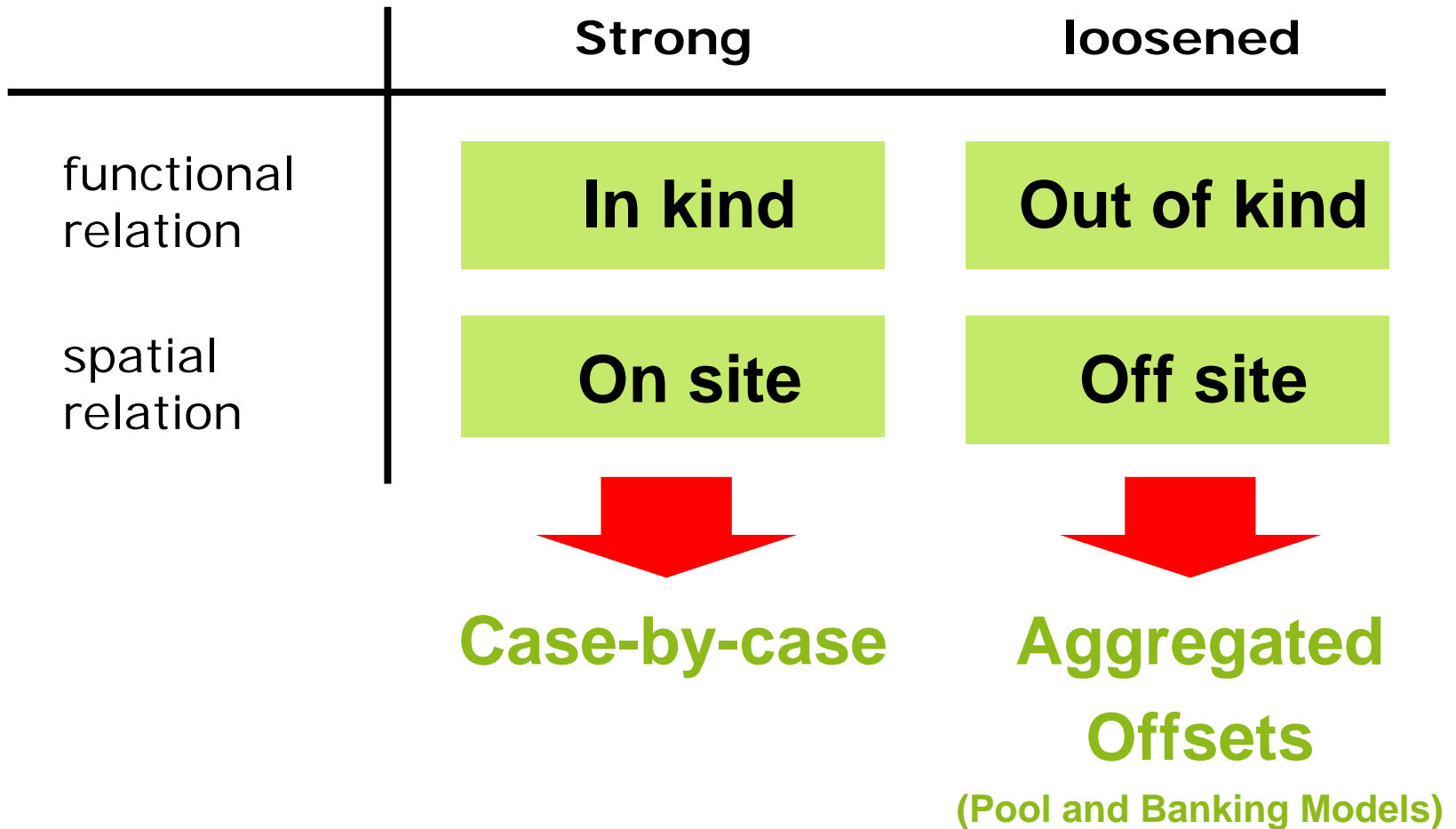


2. Characteristics of Biodiversity Offsets and implementation

Characteristics of Biodiversity Offsets

- Functional relation to the impact
- Spatial relation to the impact
- Timing
- Responsibility
- Compensation measures: What are Biodiversity Offsets used for?

Functional and spatial relation to the impact

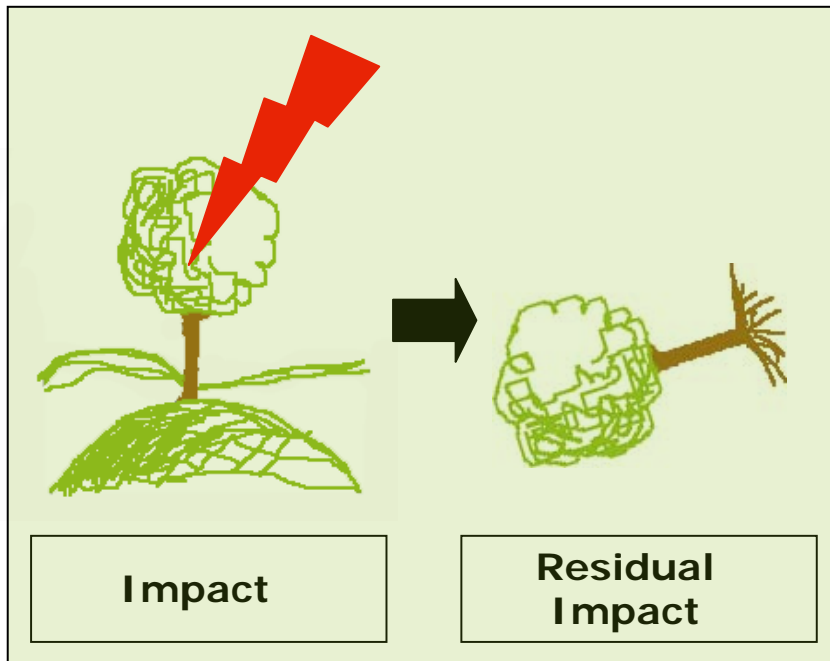


Timing

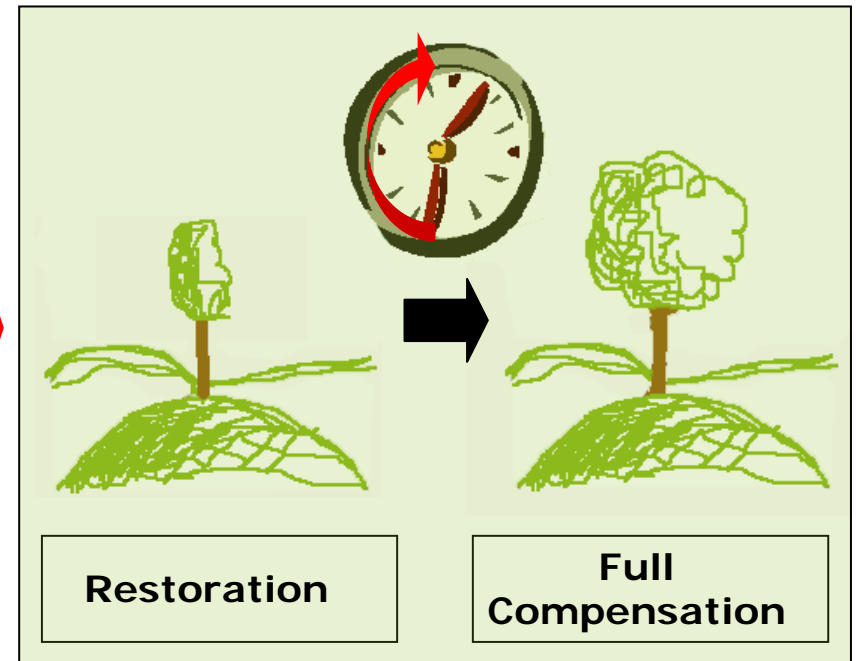
Offset implemented after impact



Problem of time lag



Offset implemented before impact



Responsibility

**Developer
implements offsets**



**Measures on
the ground**

**Third party
implements offsets**



**Compensation
payments and
Biodiversity
credits**

Compensation measures: What are Biodiversity Offsets used for?

**Conservation /
Preservation**


**Restoration /
Enhancement**



Risk that Biodiversity Offsets
replace conservation
obligations of governmental
bodies (Nature Conservation
Authorities etc.)

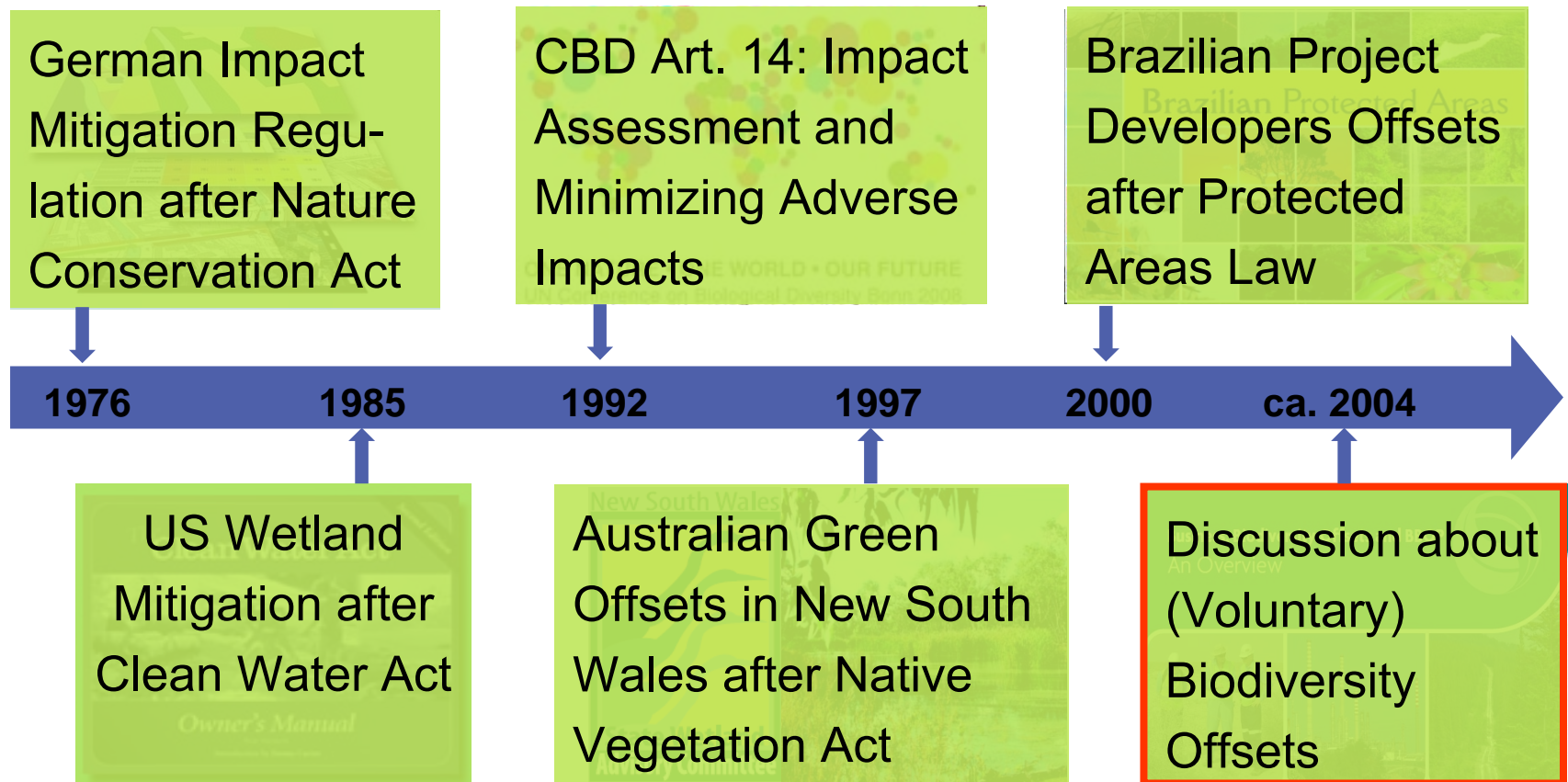
3. Compensation Approaches worldwide

Selected approaches of Biodiversity Offsets

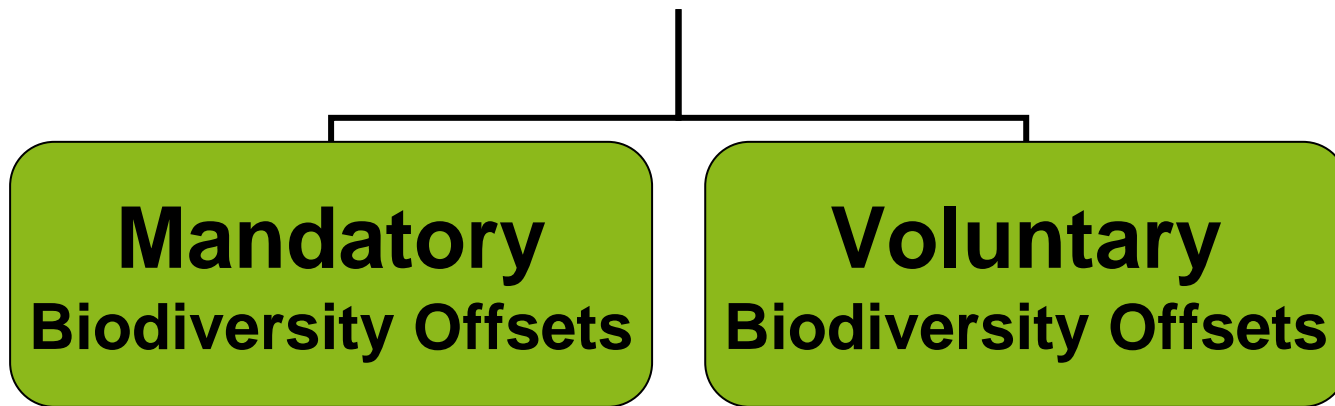


Argentina:	EIA, Environmental Compensation Fund
Australia:	Native Vegetation Offset Programs in Victoria, New South Wales and Western Australia, NSW Wetland Management Policy, Biodiversity Banking and Offsets Scheme in NSW, BushTender Program and BushBroker System in Victoria
Brazil:	Forest offsets, Project offsets and Conservation Units, Proambiente Program
China:	Eco-compensation (in discussion), pilot projects (road planning, land consolidation, hydropower)
Egypt:	EIA/ESIA, sectoral guidelines for major projects
India:	Biological Diversity Rule, Mitigation Schemes and Wetland Mitigation Schemes (under development)
Madagascar:	sectoral EIA guidelines for major projects, MEC for existing companies, FOREAIM Project: Restoration in degraded forest landscape in Eastern Africa, Eco-Certification
Mexico:	EIA, Program for Environmental Justice
South Africa:	EIA, Guidelines for Biodiversity
South Korea:	Substitute Habitats for Dams, Wetland Mitigation Banking (in discussion), Pilot Projects on Impact Mitigation Regulation

Milestones in Environmental and Biodiversity Offsetting



4. Kinds of Biodiversity Offsets



Mandatory Biodiversity Offsets

Environmental Impact Assessment



German Impact Mitigation Regulation



US Wetland Mitigation Banking



Brazilian Project Developers Offsets

Offsets in Environmental Impact Assessment



R
plan



er



Overview of the basic classes of Biodiversity Offsets; IÖR Dresden.
Towards no net loss and beyond: addressing practical challenges for biodiversity

Line Darbi
in the UK, 22 June, London

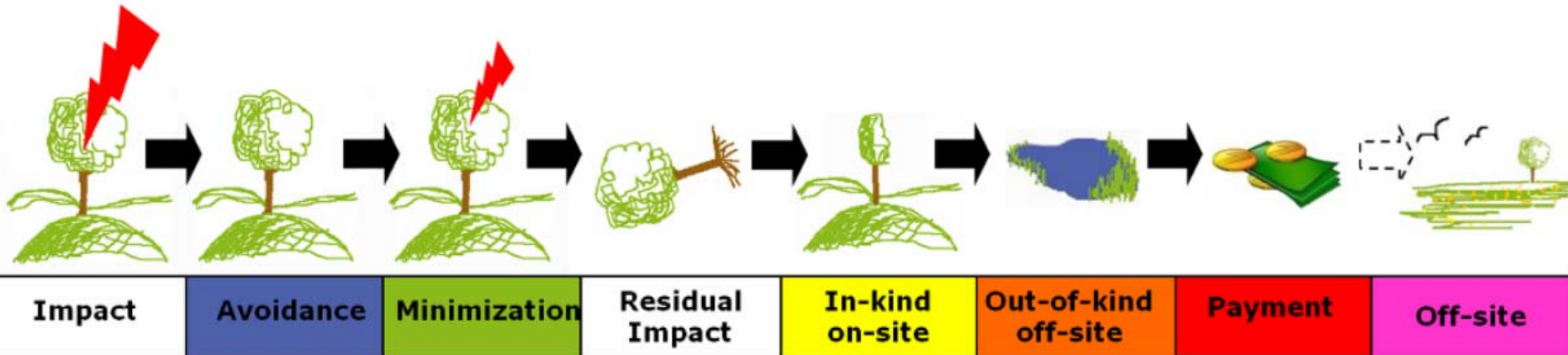


Leibniz Institute
of Ecological and
Regional Development

German Impact Mitigation Regulation

Impact Mitigation Regulation (“Eingriffsregelung”) is the major landscape conservation instrument to address mitigation and compensation for impacts from developments and projects in Germany:

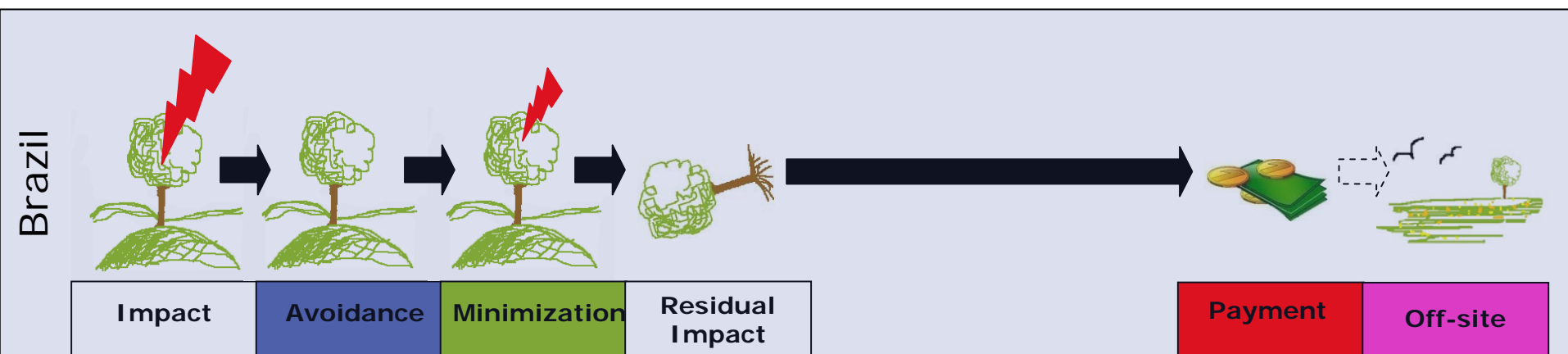
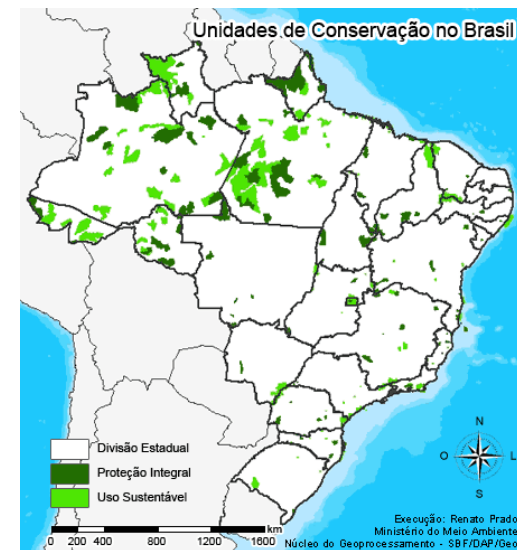
- entered into force as part of the Federal Nature Conservation Act 1976
- comprehensive approach (for all impacts, on all scales, not restricted to specific areas)
- 2002 and 2009 amendments to the Federal Nature Conservation Act: loosening of spatial and functional connection between impact and compensation
- compensation pools: provision and bundling of compensation sites and measures



Brazilian Project Offsets & Conservation Units

Environmental Licensing
SNUC Act: Brazilian System
of Conservation Units Act

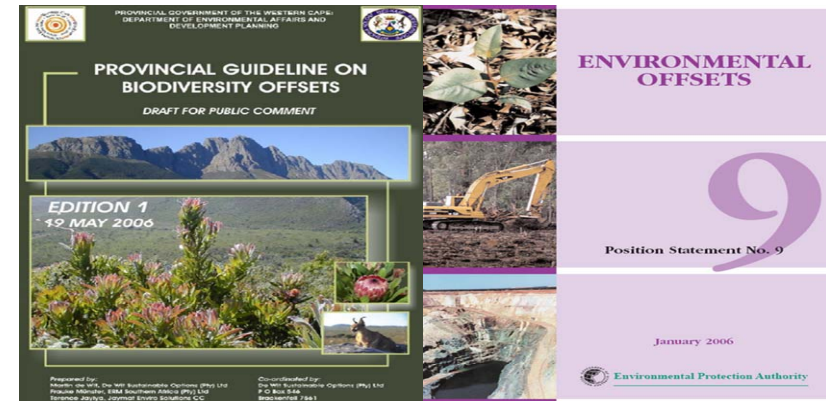
0,5% of investments?



Market-based Instruments / Pool and Banking Models

Australia

- Biodiversity Banking and Offsets Scheme in New South Wales
- BushTender Program and BushBroker System in Victoria



USA

- Wetland Banking (Clean Water Act)
- Conservation Banking (Endangered Species Act)

Various other examples

- German Compensation Agencies, South African Biodiversity Offsets,

Core parameters of Pool and Banking Models

What are the core parameters that influence the functioning and financing of compensation agencies in Germany?

1. form of organisation / legal form

- number of employees
- focus solely on compensation vs. compensation as one of a multitude of fields of action
- more nature conservation orientation vs. more economic orientation

2. area of influence and clients

3. availability and safeguarding of compensation sites

4. financing and cost recovery

Advantages and potentials of Pool and Banking Models

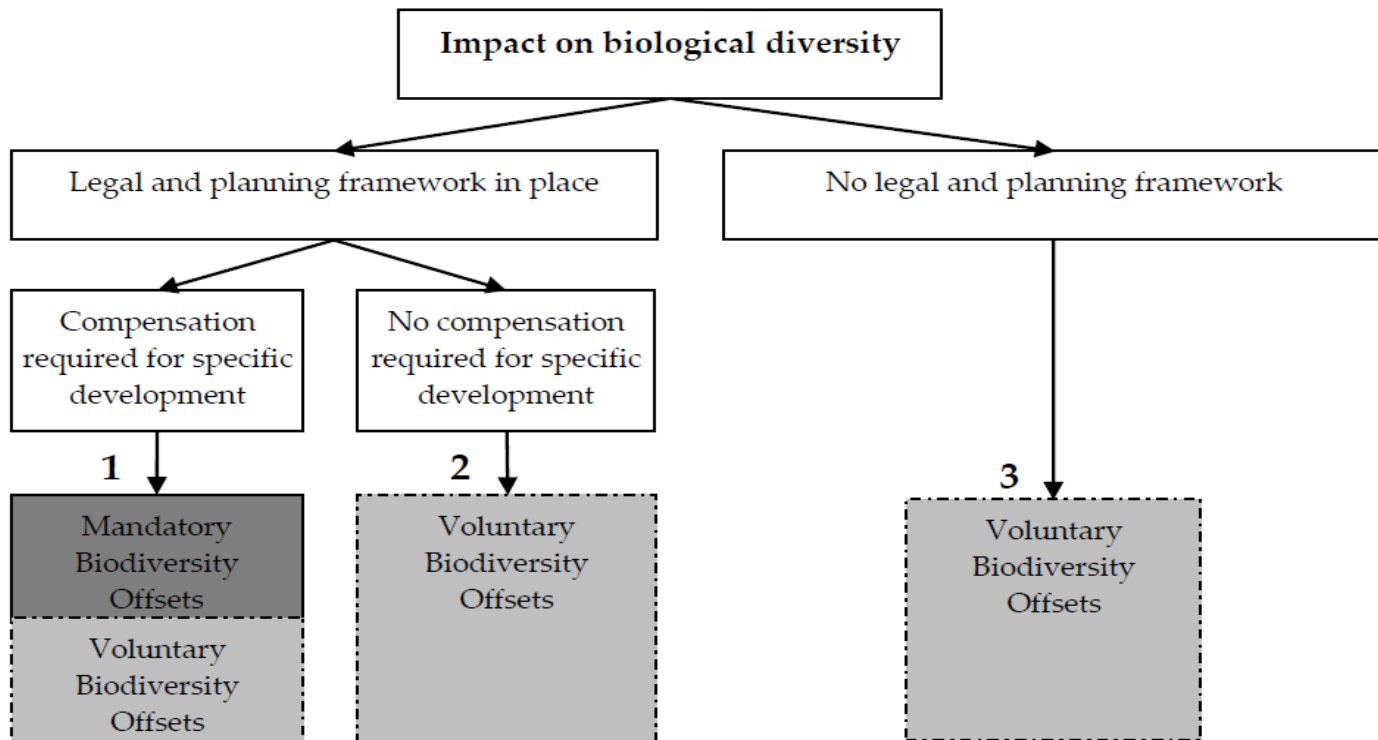
- steered development / inclusion into an overall concept is beneficial both economically and ecologically (simpler and speed up licensing procedure, creation of ecological networks, measures are implemented where it is most useful from a nature conservation point of view)
- can lead to a reduction of land consumption
- bundling increases the efficiency of the implementation and maintenance of measures
- recovery of complex ecosystems and possibility to implement also cost-intensive measures
- diminution of time lag effects
- bundling of capacity and technical know-how
- broad participation and acceptance (reduction of land use conflicts etc.)

Obstacles and criticism of Biodiversity Offsets

- risk that the appropriateness to compensate may not always be considered
- advance financing
- uncertainty (refinancing of sites and measures cannot be guaranteed)
- need for trained personnel
- preference for low cost measures
- price dumping can have a negative effect on the quality of the measures
- to date: lacking transparency and transferability (valuation techniques to balance impact and compensation and cost calculation differ very much)

Voluntary Biodiversity Offsets

In contrast to Mandatory Biodiversity Offsets, Voluntary Biodiversity Offsets are implemented without prior obligation, in response to the growing public pressure on corporations and governments to demonstrate that they are addressing the environmental impacts of their activities.



The business case for Biodiversity Offsets

<i>License to operate</i>	<i>Access to land and resources, acceleration of licensing procedures, avoidance of costly delays, influence on emerging environmental regulation and policy</i>
<i>Reputation</i>	<i>Good PR, enhanced reputation and „social license to operate“, better relationship with local communities, governmental regulators, environmental groups and other stakeholders</i>
<i>Access to capital</i>	<i>Higher standards of international financial and funding institutions</i>
<i>Efficiency</i>	<i>Management of social and environmental risks and liabilities</i>
<i>New markets</i>	<i>Competitive advantage as „First mover“</i>

5. Conclusion

Challenges

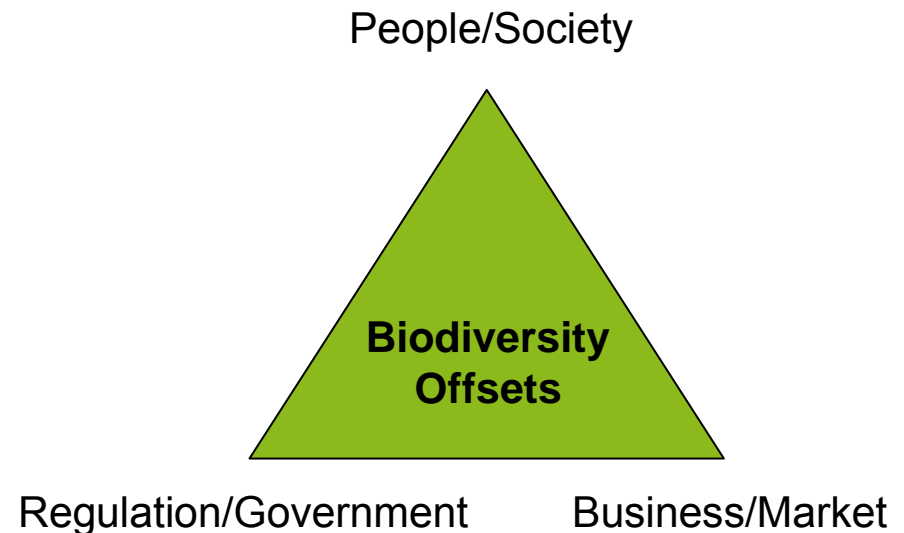
- Which approach addresses best Biodiversity?
- How to balance the biodiversity loss and the required compensation (valuation of Biodiversity)?
- How can social and economic mechanisms can be integrated in the compensation process?
- Enhancement vs. Preservation: Is preservation already compensation?
- Can compensation be cut down on major projects (road planning, mining ...) or do we need an overall approach to combating biodiversity loss?
- Monitoring and Follow Up: How to ensure long term efficiency of Offsets?
- Liability and funding for Offsets

New classes of Biodiversity Offsets?

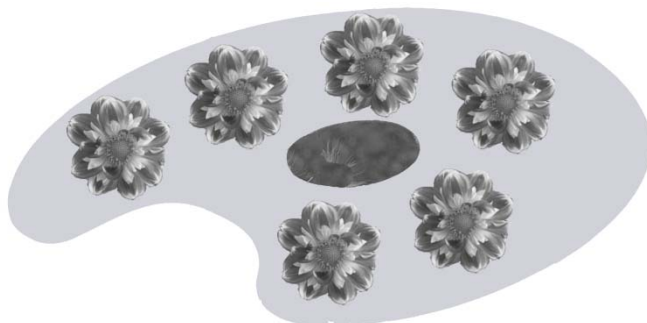
- Limits between Mandatory and Voluntary Offsets become blurred
- Market plays an important role, but regulative framework is often the starting point and enhancing the development
- Business case and increasing number of voluntary initiatives



**Biodiversity Offsets at the
interface of Government,
Business and Society**



Thank you for your attention!



What would you do with this?



And with this?

Leibniz Institute of Ecological and Regional Development

Weberplatz 1

01217 Dresden

www.ioer.de

Marianne Darbi

Fon: 0049 351 463 42356

Fax : 0049 351 4679 212

E-Mail: M.Darbi@ioer.de