The Biodiversity Assessment Framework

Presented by:
Roel Slootweg (teamleader)
SevS, natural and human environment consultants
(sevs@sevs.nl)

on behalf of

Netherlands Ministry of Housing, Spatial Planning and Environment
Contact: Arthur Eijs (arthur.eijs@minvrom.nl)
Biodiversity: a broad perspective

- **Conservation**
  - Ecosystems
  - Species diversity
  - Genetic diversity

- **Sustainable use**
  - Equitable sharing
Biodiversity assessment framework: why?

• Convention on Biological Diversity (CBD):
  - ecosystems, species, genetic variability
  - conservation, sustainable and equitable use

• Many thing are happening:
  - Eco-labels (e.g. FSC, MSC, organic products)
  - Codes of conduct (equator principles, Utz Kapeh)
  - Environmental impact assessment (e.g. EBI for oil & gas)

• ....but very fragmented:
  - no link to CBD objectives
  - no complete overview of biodiversity issues
  - impossible to do benchmarking
Biodiversity assessment framework: for what activities?

- Extraction of products: fish, timber, water, etc.
- Emissions in air, soil, water.
- Land conversion for agriculture, aquaculture, mining, tourism, etc.
- Introduction of new strains, species, races (GMO’s).
- Restoration of nature / estate management
- Financing all of the above.
- Responsibility for product chain from raw materials to end consumers of products.
For what purpose?

• Dependency on resources (= future of core-business):
  - Example: Marine Stewardship Council & Unilever for fish

• Image and PR:
  - Sound operationalisation of “people, planet, profit” to customers, shareholders and society at large
  - transparency in decision making; readily available information to use in public debates

• International agreements:
  - in the end we all have to join, so better early than late
What does(n’t) the framework offer

**YES**
- Appraisal of existing tools in the light of international agreements.
- Benchmarking of existing tools
- Basis for adjustment or development of new tools.

**NO**
- No procedure for decision making, but providing information for decision making.
- No unlimited power for stakeholders, but transparency in decision making.
- No predictive model, but an analytical framework.
Structure and present status of the Biodiversity Assessment Framework project

Scientific background

Assessment framework

Task or sector-oriented modules

In-house application

1) Guiding principles
2) Stepwise analysis

• Task module: analysis of products and processes
• Task module: Development of criteria for ecolabels.
• Sector module: imported biomass for green electricity production

Projects under preparation for:
• Green energy company: biomass importation
• Food multinational: vegetable oil from tropical forests
Biodiversity assessment framework: Guiding principles

1) Ecosystems, species, and genetic diversity.
2) Conservation, sustainable and equitable use.
3) Biodiversity provides good and services for society.
4) These represent economic, social and ecological values for stakeholders.
5) Without stakeholders, biodiversity would not receive attention.
6) Ecosystem approach encompasses human activities: delineation of boundaries in dialogue with stakeholders.
7) Only study things that matter.
8) Information: experts and local/indigenous knowledge.
1. Describe physical and social interventions

3. Describe 2nd order and indirect changes

4. Geographical and time range of changes.

5. Determine area under influence

6. Determine impacts on biodiversity

7. Biodiversity related functions of influenced area.

8. Affected functions and values for stakeholders.

9. Acceptability of impacts?
   - No
   - Yes

10a. Define alternative solutions

11: Iteration

10b. Mitigation of residual impacts

Discussion and negotiation of trade-offs

Implementation / certification / etc.
Impacts on biodiversity: some examples

- Selective logging, fishing, grazing influences composition.
- Line infrastructure affects spatial structure (fragmentation).
- Introduction of exotic Nile perch in Lake Victoria severely influenced the foodweb structure.
- Key processes: dams influence the sediment balance in coastal wetlands / flooding regime in riverine wetlands / saltwater balance in estuaries.

ANY EXPECTED IMPACT ON ONE OF THESE ASPECTS IS A REASON FOR CONCERN!!
Functions of biodiversity

• **Production (\(=\) harvestable, without / with inputs)**
  - without: fish, construction materials, genetic resources
  - with: agriculture, aquaculture, plantations

• **Processing & regulation (\(=\) system maintenance)**
  - waterpurification, coastal protection, sediment trap, biodiversity maintenance, etc.

• **Carrying (\(=\) suitability for..)**
  - settlement, tourism, etc.

• **Signification**
  - religious, spiritual, scientific, educational
Values for society

- **Social**
  - employment, safety, health, etc. (quality of life)
- **Economic**
  - direct monetary (selling of products)
  - inputs in other economic activities (provision of raw materials for industrial processing)
  - indirect (protection of infrastructure by mangroves)
- **Ecological**
  - future value (saving opportunities for our children)
  - spatial value (guaranteeing the functioning of other systems, e.g. spawning grounds for migratory fish)
Remember the guiding principles

2) Conservation, sustainable and equitable use.

5) Without stakeholders, biodiversity would not receive attention.

6) Ecosystem approach encompasses human activities: delineation of boundaries in dialogue with stakeholders.

8) Information: experts and local/indigenous knowledge.

Biodiversity is about people!
Potential uses of the framework

• Impact assessment (projects, policies, trade agreements)
  - integrating biophysical and social aspects.
• Benchmarking of existing procedures and instruments from CBD perspective.
• Corporate social responsibility:
  - Certification / eco-labeling.
  - Sustainability reporting.
  - Internal quality management systems
### Example:
**benchmark of existing instruments**

<table>
<thead>
<tr>
<th>Instrumenten</th>
<th>analyse</th>
<th>gedragscode</th>
<th>keurmerk</th>
<th>principes</th>
<th>inkoopcriteria</th>
<th>levenscyclus</th>
<th>standaard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vraag</td>
<td>Uordeel: geen aandacht = niet; zwak uitgewerkt; niet goed en niet slecht = o.k.; sterk uitgewerkt)</td>
<td></td>
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</tbody>
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#### Uitgangspunten

| 5. definitie van biodiversiteit | Niet | Niet expliciet | ok | Niet | Niet | Niet | niet | sterk |
| 6. ecosysteem, soort, gen | Zwak | ok | ok | Zwak | Zwak | Niet | niet | sterk |
| 7. behoud, gebruik, verdel. | niet verdeling | ok | verdeling | 2 van 3 | 2 van 3 | Niet | niet | sterk |
| 8. Stakeholders betrokken toepassingen | Ok | Sterk | Sterk | niet | Ok | niet | ok |
| 9. Gebiedsgericht | in fysieke zin | in fysieke zin | sterk | in fysieke zin | in fysieke zin | zwak | ok |
| 10. Informatiebeperking | Sterk | Ok | Nee | Zwaak | sterk | ok |
| 11. Lokale kennis toepassingen | Zwak | Sterk | Nee | Wel | Niet | sterk |

#### Analysestappen

| 12. Stappenplan | sterk | Sterk | Nee | Nee | Niet | niet | sterk | niet |
| 13. Beschrijving activiteit | wisselend | Sterk | Ok | Nee | Zwaak | Ok | niet |
| 15. Fysieke effecten | Ok | Ok | Nee | Ok | Nee | Ok | zwak |
| 16. Reikwijdte effecten | Ok | Ok | Ok | Ok | Ok | zwak | niet |
| 17. Identificatie gebied | Ok | Ok | Ok | Ok | zwak | Zwak |
| 18. Gevolgen biodiversiteit | geen inzicht | Ok | Ok | Ok | zwak | ok |
| 19. Multifunctionaliteit | Niet | ok | Ok | Nee | Niet tot zwak | niet | zwak |
| 20. Maatsch. waarden | Niet | impliciet | Ok | enigszins | Niet | niet | ok |
| 21. Ook positieve gevolgen | Sterk | Ok | Nee | Wel | Niet expliciet | Ok | niet |
| 22. Waardebepaling | Niet | Niet | impliciet | Niet | geen inzicht | Ok | niet |
| 23. (on)aanvaardbaarheid | Niet | Zwak | Niet | Nee | Zwaak | niet | ok |
| 24. Mitigerende | Ok | Ok | Ok | Ok | zwak | ok |

#### Algemene aspecten

| 25. Inbedden in organisatie | Niet | Wel | Wel | Nee | Wel | zwak | sterk |
| 26. Capacity building | Ok | Wel | Wel | Nee | Wel | zwak | niet |
For further information:

Roel Slootweg
SevS@SevS.nl

Thanks for your attention