



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

ecosystems

species diversity

genetic diversity



conservation

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,...**
- **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

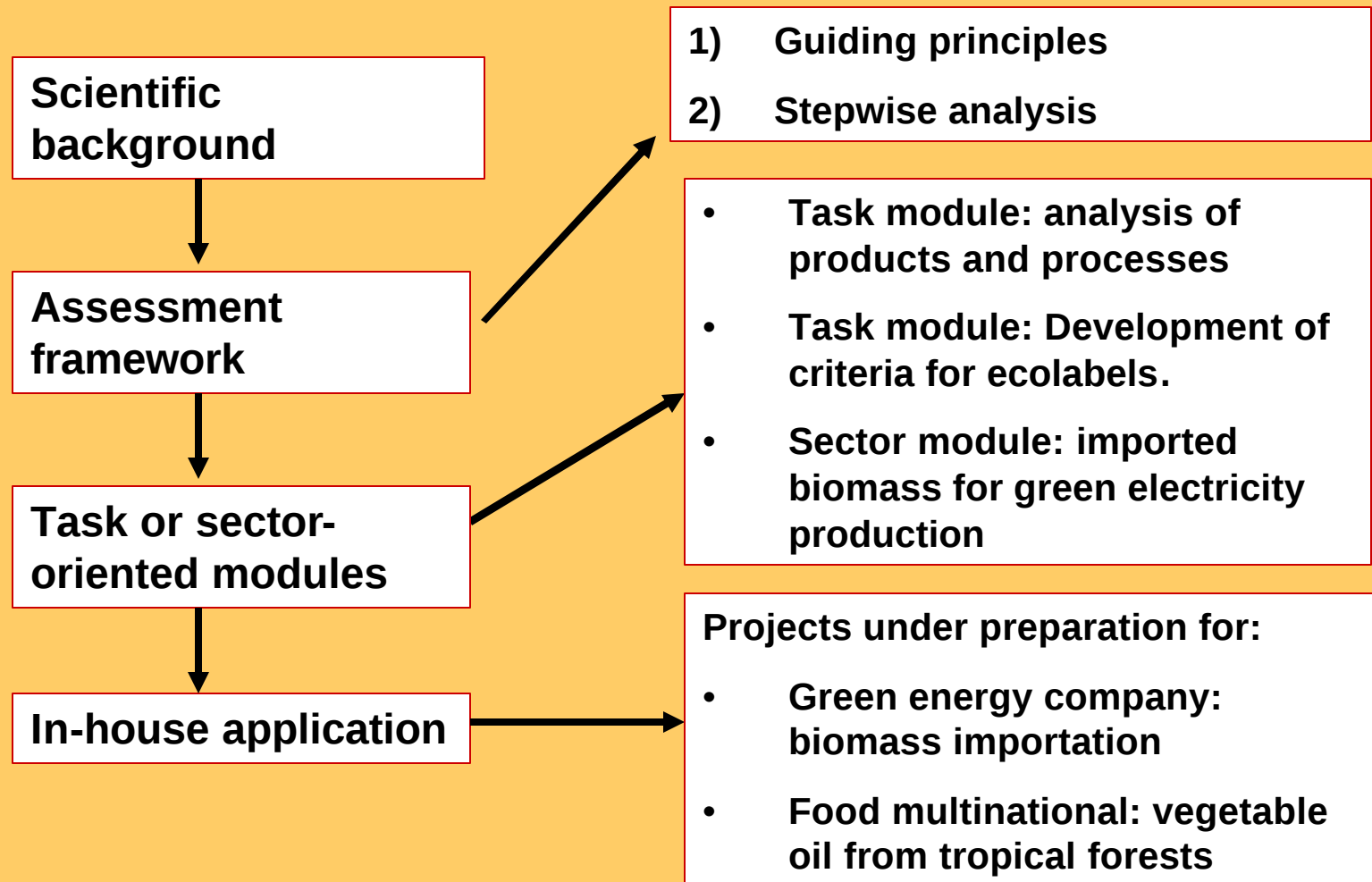
YES

- **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



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.**

Biodiversity assessment framework:

Stepwise analysis (transparent, participatory)

1. Describe physical and social interventions

2. Describe changes, both direct and indirect

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

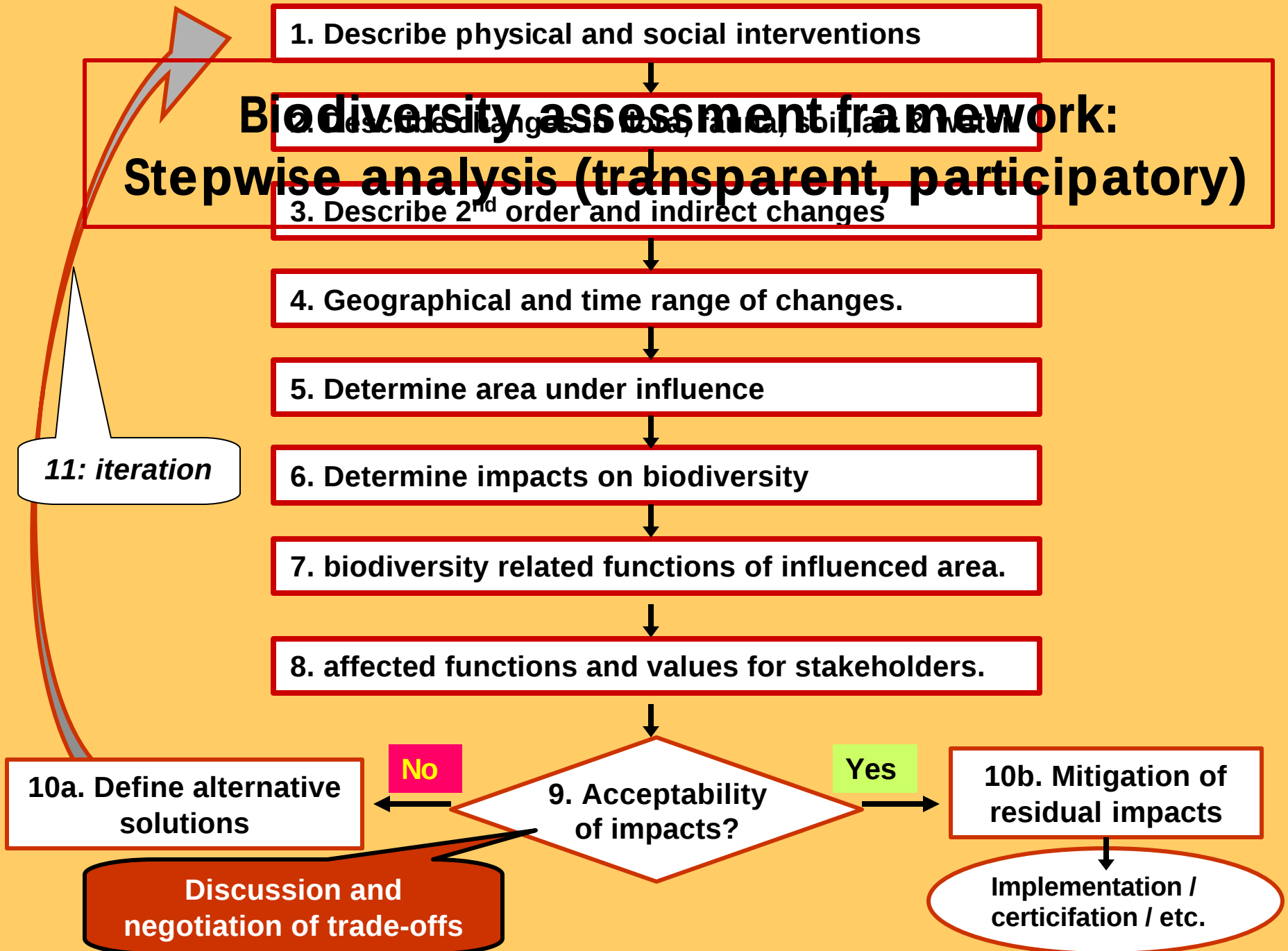
10a. Define alternative
solutions

10b. Mitigation of
residual impacts

Discussion and
negotiation of trade-offs

Implementation /
certification / etc.

11: iteration



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.
- Keystone species: sea-otters, starfish, elephants
- 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

Instrumenten	analyse	gedragscode	keurmerk	principes	inkoopcriteria	levenscyclus	standaard
Vraag	Oordeel: geen aandacht = <u>niet</u> ; <u>zwak uitgewerkt</u> ; niet goed en niet slecht = o.k. ; sterk uitgewerkt)						
<i>Uitgangspunten</i>							
5. definitie van biodiversiteit	Niet	Niet expliciet	ok	Niet	Niet	Niet	sterk
6. ecosysteem, soort, gen	Zwak	ok	ok	Zwak	Zwak	Niet	sterk
7. behoud, gebruik, verdel.	niet verdeling	ok	verdeling	2 van 3	2 van 3	Niet	sterk
8. Stakeholders betrokken	toepassingen	Ok	Sterk	Sterk	niet	Ok	zwak
9. Gebiedsgericht	in fysieke zin	in fysieke zin	sterk	in fysieke zin	in fysieke zin	zwak	ok
10. Informatiebeperving	Sterk	Ok	Ok	Nee	Zwak	sterk	ok
11. Lokale kennis	toepassingen	Zwak	Sterk	Nee	Wel	Niet	sterk
<i>Analysestappen</i>							
12. Stappenplan	sterk	Sterk	Nee	Nee	Niet	sterk	niet
13. Beschrijving activiteit	wisselend	Sterk	Ok	Nee	Zwak	Ok	niet
14. Invloed sociale act.	Zwak	Nee	Zwak	Sterk	Nee	Ok	niet
15. Fysieke effecten	Ok	Ok	Ok	Nee	Ok	Ok	zwak
16. Reikwijdte effecten	Ok	Ok	Ok	Ok	Ok	Niet	niet
17. Identificatie gebied	Ok	Ok	Ok	Ok	Ok	zwak	ok
18. Gevolgen biodiversiteit	geen inzicht	Ok	Ok	Ok	Ok	zwak	ok
19. Multifunctionaliteit	Niet	ok	Ok	Niet	Niet tot zwak	niet	zwak
20. Maatsch. waarden	Niet	impliciet	Ok	enigszins	Niet	niet	ok
21. Ook positieve gevolgen	Sterk	Ok	Niet	Wel	Niet expliciet	Ok	niet
22. Waardebepaling	Niet	Niet	impliciet	Niet	geen inzicht	Ok	niet
23. (on)aanvaardbaarheid	Niet	Zwak	Niet	Niet	Zwak	niet	ok
24. Mitigerende	Ok	Ok	Ok	Ok	Ok	zwak	ok
<i>Algemene aspecten</i>							
25. Inbedden in organisatie	Niet	Wel	Wel	Niet	Wel	zwak	sterk
26. Capacity building	Ok	Wel	Wel	Niet	Wel	zwak	niet

For further information:

Roel Slootweg

SevS@SevS.nl

Thanks for your attention

