



Biodiversity in EIA

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Biodiversity: a broad perspective

ecosystems

species diversity

genetic diversity

conservation



sustainable
use



equitable
sharing



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.**

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.**

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 !

For further information:

Commission for EIA

www.eia.nl

Thanks for your attention

