

GEO-4 COMPREHENSIVE CHAPTER OUTLINES

Comments on the outline in the context of producing a report on environmental valuation in Western Africa

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CONTENT

Key chapters for this report are:

Chapter 5 on Biodiversity,
Chapter 6 on Regional Perspectives (particularly the section on Africa), and
Chapter 7 on Interlinkages

Also of importance are:

Chapter 2 on Atmosphere,
Chapter 3 on Land, and
Chapter 4 on Water.

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Regarding **Chapter 2 on Atmosphere**, the main topics are:

- Air pollution,
 - Climate change, and
 - Ozone depletion.
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Regarding **Chapter 3 on Land**, the main topics are:

- Rapid land use change,
- Forests and woodlands,
- Desertification,

- Erosion,
 - Nutrient depletion,
 - Water scarcity and water quality,
 - Salinity,
 - Contamination/pollution, and
 - Perturbations of biologically mediated cycles.
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Regarding **Chapter 4 on Water**, the main topics are:

- Inland waters,
- Coastal areas, and
- Marine areas

These are also to be reported on in the context of human-wellbeing and development factors:

- Human health,
- Water availability,
- Food security,
- Human safety and security, and
- Socioeconomic development and livelihoods.

Regarding these factors, the outline emphasises:

“Resource economics – pricing of ecosystem services; valuation methodologies (monetary and non-monetary).”

Regarding responses and interventions, the outline emphasises:

“Financing mechanisms and incentives

Incentives, deterrents, pricing and markets, Corruption, Private sector, Certification”

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Chapter 5 on Biodiversity is a key chapter for the report on environmental valuation in Western Africa.

Key quote from the outline:

“Our challenge is getting the values right—cultural, economic, and social—so that the biodiversity of today is available for the generations of the future. ... The issues of providing greater value are not simple and will take research, imagination, and good will to sort through.”

The global overview section of the chapter will:

“Introduce the links between biodiversity and the provision of ecosystem services. Highlight a number of ecosystem services that play a role in sustainable development (e.g. medicinal species, fisheries, forest products, bushmeat) and present trends in these services. Key issues—loss of biodiversity, current use of biodiversity (agriculture, health, water purification, cultural...), potential uses of biodiversity (bioprospecting in marine and terrestrial areas).”

Valuation also plays a key role in the section on the drivers of change in biodiversity:

*“Overview of indirect drivers (focus on population, consumption,).
Can we add undervaluation?”*

“Using the example of economic growth as an indirect driver, this chain will be explored to show both negative and positive effects on biodiversity. Value of biodiversity (internalisation of, natural capital). Patterns of growth and consumption. Examples will be given such as a case study of deforestation in Cameroon: economic growth in industrial countries leading to depletion of local forest and fisheries reserves, elevated price of hardwood, and finally demand for hardwoods in Cameroon. Also success stories - economic growth leading to investment in protected area systems and substitutes for biological products which has led to reduced exploitation.”

Regarding Chapter 5 on Biodiversity, the main topics/themes are biodiversity and:

- Health,
- Agriculture,
- Materials and energy,
- Security, and
- Cultural values.

Regarding health, one of the responses in the outline is to:

“Examine undervaluation of current and potential uses of biodiversity for human and environmental health.”

Regarding agriculture, responses in the outline include:

“Opportunities for sales and entrepreneurship using local biodiversity – pathway to prosperity.”

Regarding materials and energy, the outline needs *“to be elaborated.”*

Regarding (livelihood) security, the outline emphasises the impacts from natural disasters such as:

“Consequences for human well-being: number of casualties, economic losses, social and cultural impacts.”

Regarding cultural values, the outline has a section on historical analysis of *“rural people”*:

“Directly receiving their goods and services from the immediate environment. Cultural beliefs, values, knowledge support perception of dependence on nature for human well-being, need for caring and stewardship, non-material valuation of resources and restraint in their use. Changes due to shift toward dominant culture begin to break down transmission of traditional beliefs, values, and knowledge, leading to more material, consumptive, wasteful behaviours. Degradation of environment in turn negatively affects their well-being.”

This section also looks at *“poverty as a driver”*:

“Rural using biodiversity beyond carrying capacity, and needs to feed urban poor leading to keeping prices low.”

Under Part III of this chapter on Synthesis will include *“a focus on ... improving the valuation of biodiversity.”*

Regarding policy development and implementation, the outline emphasises:

“Valuation of goods and services and recent attempts to reduce perverse incentives (subsidies and infrastructure impacts) and create

markets or payment programs to increase incentives for conservation and protection of biodiversity and ecosystems.”

And it also highlights next steps:

“Evaluation of valuation programs and further development.

Green accounting (national), triple bottom line (corporate)

Research on sustainable use and compliance mechanisms.”

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Regarding **Chapter 6 on Regional Perspectives**, the section on Africa focus on land degradation:

“The chapter will underscore the Land degradation issue, and the initiatives in combating it.”

The outline further states:

“The following will particularly be illustrated:

- *adding value to the land resource that is not degraded;*
 - *using land resources efficiently (and sustainably) to derive maximum benefit;*
 - *making a case for safeguarding and improving the undegraded land asset”*
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Regarding **Chapter 7 on Interlinkages**, insights from this report on environmental valuation should be able to provide input:

“This Chapter will address the question of whether policy coherence based on the analysis of interlinkages can provide multiple benefits to society and environment with minimum additional cost and deal with reality on the ground.

Benefits to environment and for development can be realised by adopting an appropriate mix of policy responses and practices (technology, societal and behavioural, economic...) that explicitly

recognize the linkages that exist within and amongst environmental change.

What are the most efficient responses? Legal mechanisms (issue of enforcement/compliance)? Change in values and mindset (challenge to get people to think differently and in an integrated way)? Market-lead responses? Education (no one-fits-all solution - need for education at all levels - community, policy-makers)? Institutional integration?"

Valuation may be particularly important for identifying "benefits of considering interlinkages" including:

"Cost-effective to deal with multidimensional impacts

Marginal cost of adopting an interlinkages approach is minimal when compared to the opportunity cost and benefits, especially at the national level ...

Potential for enhanced cooperation and collaboration for projects, investment and financing, as well as enhanced international environmental governance (ex: coherence between policies and activities of UN agencies – coordination between scientific and technical activities, harmonization of national reporting, joint capacity building activities...)."

Of relevance to the Western Africa context, the chapter highlights linkages among:

"Climate change-Land Degradation-Biodiversity"

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Regarding **Chapter 8 on Challenges and Opportunities**, environmental valuation may be able to provide insights for the vulnerability framework used to address opportunities:

"In the overall context of GEO-4, this chapter seeks to find opportunities for improving human well-being by mainstreaming the environment into six important policy domains (cross-cutting issues): poverty; human health; institutions and governance; trade; science and technology, and conflict and cooperation.

A vulnerability framework is used to look at the relevance of these six cross-cutting issues to human well-being. Vulnerability is very context and place specific. Therefore we include place-based integrated assessments of the interactions between environmental change, the impact of the changes on human well-being and the loss of ecosystem services.”

The chapter also highlights key “*domains for policy-making*” which are similar but not entirely the same as the themes in the biodiversity chapter:

- Poverty,
 - Human health,
 - Science and technology,
 - Trade,
 - Conflict and cooperation, and
 - Institutions and governance.
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Regarding **Chapter 9 on The Future Today**, valuation studies might provide inputs into the scenarios which will be presented.

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Regarding **Chapter 10 on Policy Options**, the list of “*emerging policy options*” have direct relevance to valuation:

- *“Informational regulation (e.g. PROPER system in Indonesia)*
- *Economic instruments (e.g. Carbon taxes)*
- *Voluntary agreements (e.g. Netherlands Environmental Policy, clean production mechanism)*
- *Civil society initiatives (e.g.)*
- *Eco-labelling (eg. Blue Angel, certification schemes for forests, fisheries etc.)*
- *Private-public partnerships (e.g Equator principles)*
- *Local Agenda 21*
- *Corporate environmental and social responsibility (e.g. Global Reporting Initiative)*
- *Eco-currencies (e.g. Japan)*
- *Carbon trading (e.g. WB carbon prototype fund, CDCF)*

- *Developing markets for environmental services and goods (e.g. California wetland swaps, Panama national protected areas system)*
- *Debt for nature swaps*
- *Transboundary parks and protected areas (e.g. MesoAmerican Biological Corridor)*
- *Joint implementation and cleaner development mechanism*
- *Circular economy (e.g. 3Rs in Japan, and circular economy in PRC)*
- *Integrated decision making mechanisms (e.g. sector-wide approaches)*
- *Etc.”*