

Importance of Biodiversity for National and Regional Economies, Development and Poverty Reduction

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Understanding of the Key terms

- **Biodiversity** is the variability among living organisms within species, between species and of ecosystems.
- According to CBD it is “the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.”

Understanding of the Key terms

- **Poverty** is not only the lack of income, but also includes;
 - the lack of material assets,
 - the absence of social support, creating a feeling of;
 - isolation and exclusion,
 - powerlessness and deprivation of basic human rights and a feeling of helplessness to influence conditions around oneself (UPPAP, 2000).
 - Therefore poverty is complex multi-dimensional phenomenon touching on issues of inequality, health, education and vulnerability.

Importance of Biodiversity

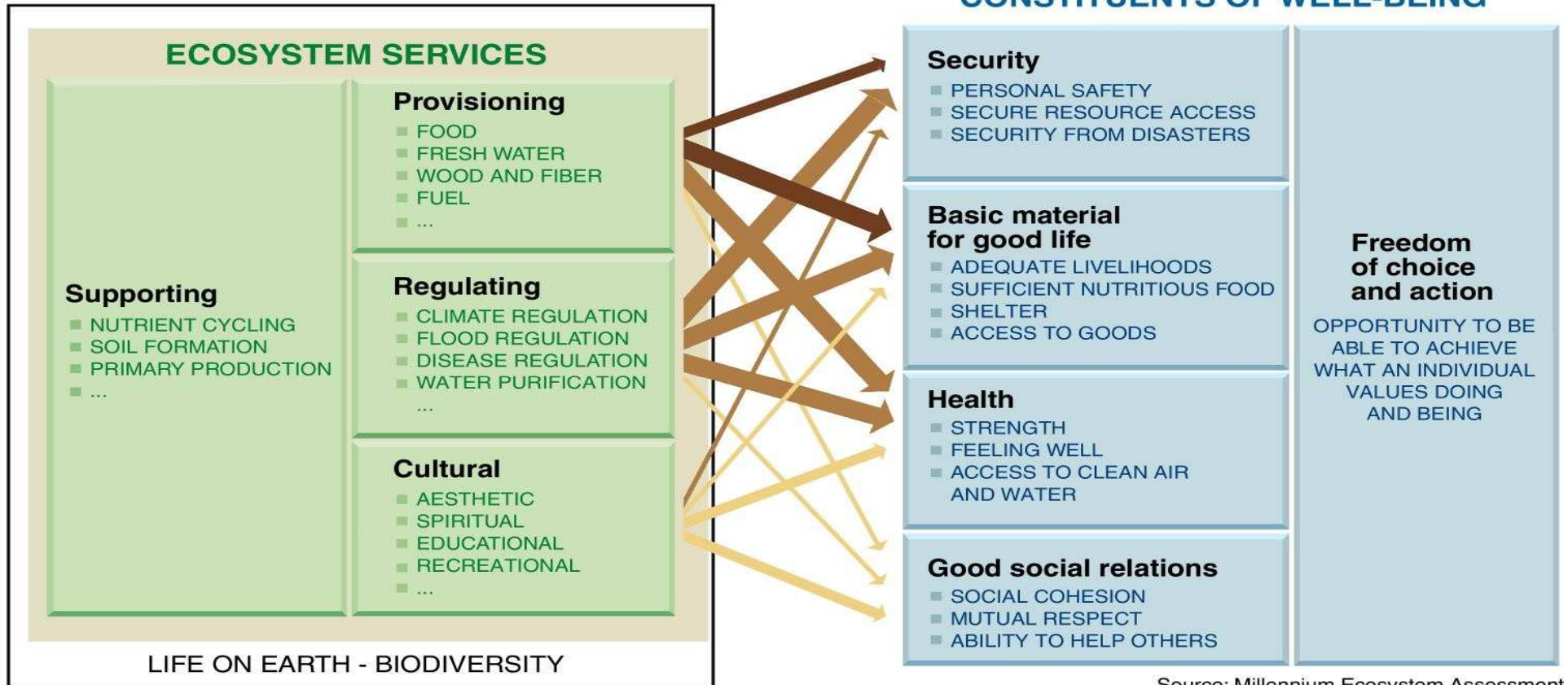
- Biodiversity is a key determinant of:
 - Human wellbeing
 - Livelihood security
 - Poverty reduction
 - Economic growth and development;
 - At Community, Local, National and Regional levels
 - Sectors prioritized for economic growth such as;
 - Agriculture,
 - Fisheries,
 - Hydropower,
 - Tourism, crafts, and
 - Pharmaceutical development **depend** directly on biological resources and their ecosystems

Linking Biodiversity to Development and Poverty Reduction

□ **Linking Biodiversity to Livelihood Security**

- Life support systems
 - Clean air, water and basics of life
- Supplies medical and genetic resources
- Food security
- Recreation opportunities e.g.
 - Hunting
- Spiritual values
 - Cultural rituals
- Cognitive development

➔ Ecosystem services are divided into 4 categories: Provisioning, **CONSTITUENTS OF WELL-BEING**



Source: Millennium Ecosystem Assessment

ARROW'S COLOR
Potential for mediation by socioeconomic factors

- Low
- Medium
- High

ARROW'S WIDTH
Intensity of linkages between ecosystem services and human well-being

- Weak
- Medium
- Strong

Costs of Biodiversity losses to Poverty Reduction efforts

- Greater dependence of the poor on biodiversity
 - High vulnerability of the poor to losses in biodiversity
 - Migrations, dislocation, social conflicts
- High costs of biodiversity conservation to the poor
 - Co-existence of Poverty amidst richness in biodiversity
 - Income earning opportunities foregone
 - Human-wildlife conflicts (vermin and problem animals)

Linking Biodiversity to Development and Poverty Reduction contd

- **Biodiversity sustains economic growth and development**
 - Raw material inputs
 - Energy
 - HEP
 - Employment
 - Agriculture, Forestry and Fisheries provide the bulk of employment despite their declining contribution to GDP
 - Fisheries employs over 600,000 people in Uganda
 - Forests employ over 1 million people and contribute 6% of GDP, a recent study put it at 12%
 - Export growth
 - Tourism contributed US\$ 500 million in 2010
 - Bio-trade (shift to natural products, ornamentals, pharmaceuticals)

Linking Biodiversity to Development and Poverty Reduction contd

- **Macroeconomic stability**
 - Price stability, food security
 - Export growth and Foreign exchange stability
 - BOP Stability
- **Revenue**
 - The gross returns to the national economy from biodiversity are estimated at US\$63.9 billion per year (Moyini et.al. 2002).
 - Intangible benefits and their values
 - Water purification and retention estimated at US\$ 150million/year
 - Forest water catchment value estimated at US\$13.2 million per year
 - Carbon sequestration US\$ 927 million per year

Regional and Global Importance of Biodiversity

- ⇒ Globally the value of ecosystem services is **more than \$33 trillion per year**
- ⇒ **Globally, the tourism sector accounts for 10% of the job market.** In 2007 it was estimated that the sector generated **US\$856 billion** and mainly from biodiversity based tourism.
- ⇒ The **world's fisheries resources** is estimated to employ approximately **200 million people**, providing about 16% of the protein consumed worldwide and have a value estimated at **US\$ 82 billion.**

Regional and Global Importance of Biodiversity

- Globally, approximately 75% of wild and cultivated plant species are pollinated by bees. The value of pollination to agricultural production worldwide is currently estimated to be worth €153 billion per annum
- The **fisheries of Lake Victoria** - shared between Kenya, Tanzania and Uganda and provide source of income, employment, food and foreign exchange for East Africa.
- **The lake produces a fish catch estimated at over 800,000 tonnes annually, worth about US \$590 million.**

Costs of Biodiversity Losses to Economies

- ❑ Annual global deforestation and forest degradation is estimated at US\$ 2 trillion
- ❑ Annual costs of deforestation and rangeland degradation to Uganda is estimated at US\$ 1.8 million and US\$ 400 million respectively
- ❑ The annual economic value of soil nutrient loss is estimated at US \$ 625m
- ❑ The global cost of failure to halt biodiversity loss on land (terrestrial biodiversity) alone in the last 10 years is estimated at US\$500 billion

Conclusions and Action Points

- ❑ Biodiversity has big potential to contribute to economic growth, employment and income generation, and poverty reduction.
- ❑ The conservation and sustainable use of biodiversity is the basis for sustainable development including attainment of MDGs
 - Mainstream biodiversity concerns into local, national and regional policies, plans and programmes e.g.
 - ❑ Macro and micro policies e.g. the PRSPs
 - Undertake proper economic valuation of biodiversity to include direct and indirect benefits
 - Create and strengthen trans-boundary initiatives and partnerships in biodiversity conservation