

General introduction to the issue of biodiversity degradation

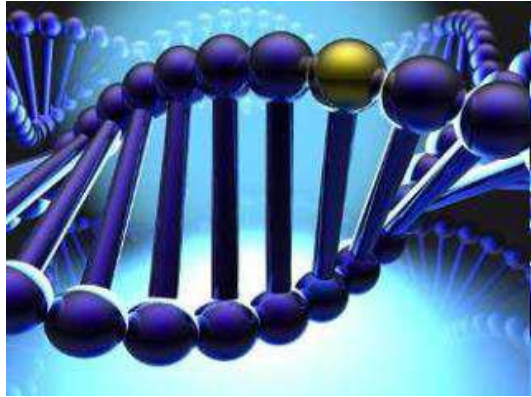


Els Martens

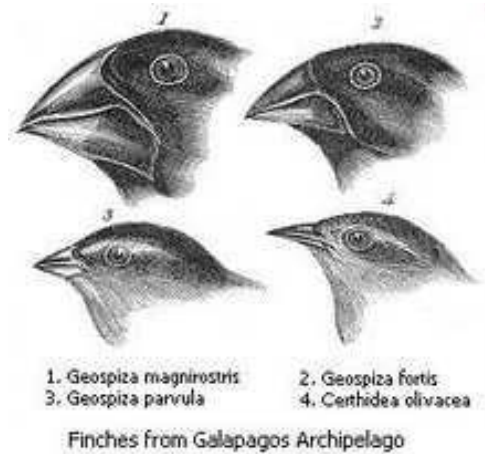
Figures & pictures from EEA/IUCN

Biodiversity?

genetic



species



ecosystem



- = basis of life, well-being, socio-economic development:
source of goods, essential services, regulation of natural processes and life support systems
- Unsustainable use causes biodiversity erosion, degradation, loss, extinction
 - Evolution in focus of biodiversity protection:
species => ecosystems, genetic => ecosystem services

Values of biodiversity and ecosystem services

- Provisioning: food, water, fibre, fuel, medicines
 - Regulating: climate regulation, water, disease
 - Supporting: primary production, soil formation
 - Cultural: spiritual, aesthetic, existential, religious, recreation, education, wellbeing
- ⇒ **All have economic value but underestimated and not reflected in market values**
- + biodiversity has an **intrinsic value** in its own right



60% of Earth's ecosystems have been dramatically transformed:

⇒ **Main pressures:**

urbanization, agriculture, industrial development, infrastructure, overexploitation, pollution

⇒ **Impact on:**

species, genetic diversity, ecosystems, ecosystem services



70 % of species are threatened by the loss of their habitat

Up to 25% of animal species face risk of extinction



30 % of species
threatened by
overexploitation

eg. collapse of
fish stocks



26 % of species
are threatened
by pesticides,
and fertilisers
like nitrates and
phosphates
(IUCN)



22% of species are
threatened by
invasive alien
species (IUCN)

=> also serious
impacts on human
health and economy



Europe's global environmental footprint has increased by a third in the last 40 years.

The European continent now consumes twice what it produces

= about 5 ha/capita



Effects of biodiversity loss

- Erosion of diversity => generalist take over
- Degraded ecosystem functions => lowered resilience of natural systems
 - => low/no capacity for adaptation to change such as climate change
 - => floods, draughts
 - => low soil quality => soil erosion + siltation of water systems, lower land production,
- Loss of beauty of nature

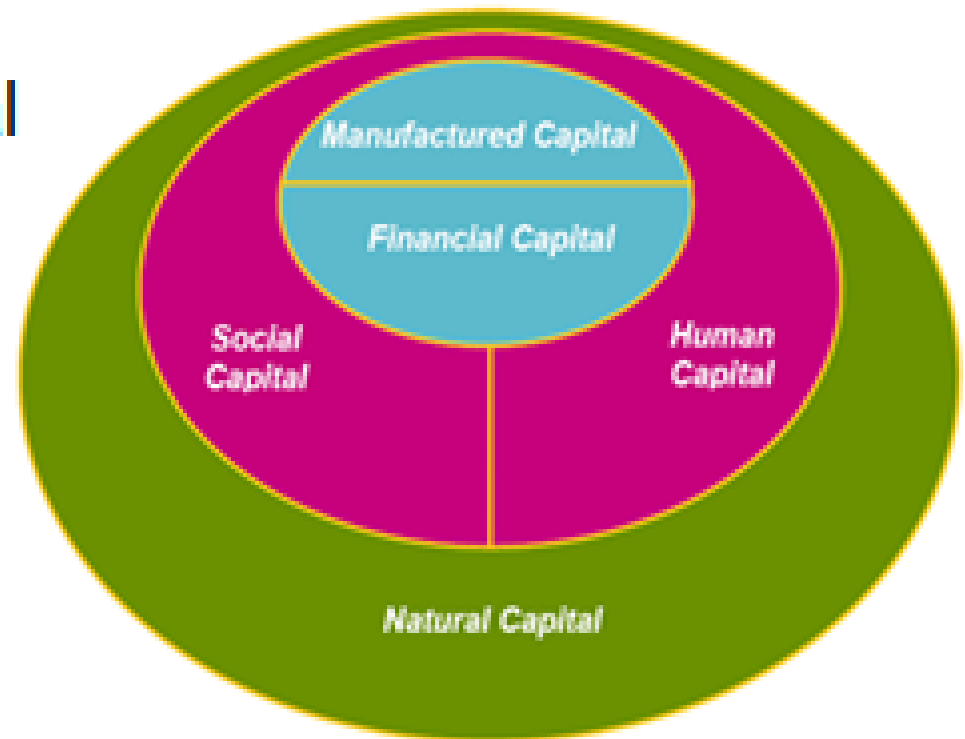




Valuing ecosystem goods and services allows people to see the true cost of biodiversity loss in financial terms - a language we all understand

Natural capital underpins our economies and wellbeing

- Manufactured capital
- Financial capital
- Social capital
- Human capital
- **Natural capital**



Source: Forum for the Future



Policy for biodiversity

Focus on:

- Networks of protected areas, species protection plans
- Integration in other sectors and policies
 - + synergies for win-wins
 - + participation of stakeholders
- Knowledge on ecosystems and values of ecosystem services



Integration of biodiversity in EIA/SEA

⇒ Overall aim: *no net loss* of biodiversity by:

- Avoiding irreversible loss
- Mitigation measures
- Compensation for unavoidable loss
- Enhancing resilience of natural environment

⇒ Cfr guidelines CBD

- Include values of biodiversity in EIA/SEA
- Values of ecosystems services in socio-econ cost-benefit analysis of projects/plans





Thank you for your attention

