



Resource use and biodiversity loss – links and challenges

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Running business in a resource constrained world - Workshop on possible solutions and cooperation between businesses and NGOs



Resource use as a pressure

Pressures behind biodiversity loss:

- resource use (overexploitation of species, biomass, fossil fuels, minerals, etc.)
- space use (degradation of spatial structure)
- pollution and alien genotypes (GMOs, IAS)





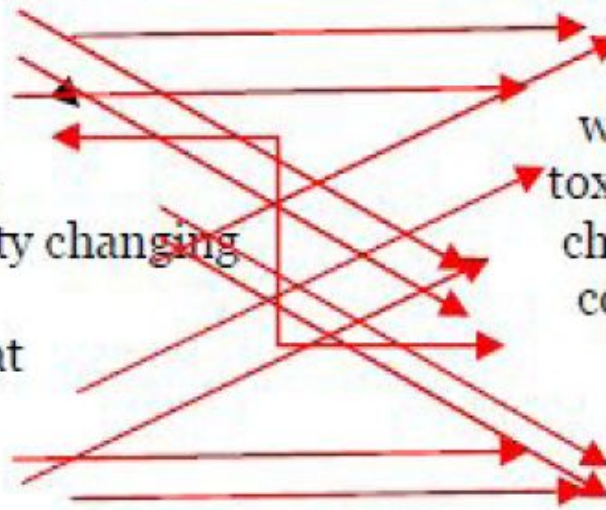
Biodiversity loss along the energy cycle

Major impact on biodiversity

habitat loss
 loss of species
 loss of genetic stocks
 reduced habitat quality
 reduced species diversity changing
 pattern of species
 fragmentation of habitat
 reduced connectivity
 wildlife mortality

Major pressure of energy cycle

emission/ air pollution
 land take up, resource use
 water pollution/soil pollution
 toxic emission, non toxic waste
 change of micro, mezo climate
 contribution to global climate
 change of water household
 electric shock, collision
 change of landscape

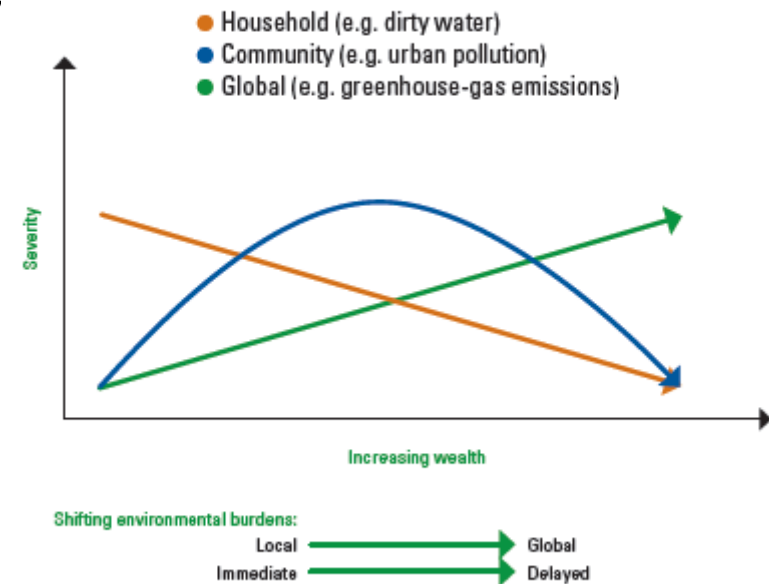




Strategies for reducing environmental impact

1. **Substitution** - More harmful to less harmful resources, BUT
 - more metal resources use -> scarcity -> extraction becomes more resource intense and pushes the limits
2. **Using resources more environmentally careful through their life cycle**
 - Pressure shifted in time and space
3. **Reduction of resource use**
 - Most economic -> reduces production cost
 - Deals with scarcity
 - Tackles the shift of environmental impact

Figure 11. Environmental risk transition framework



Source: Adapted from Wilkinson *et al.*, 2007



International Resource Panel's Decoupling report,

1. Business as usual 2011: scenarios

- -> tripling of global resource use by 2050
- Metabolic rate 16 tons/capita/year = EU's current average

2. Moderate contraction and convergence

- -> 40% increase overall resource use extraction
- Metabolic rate 8 tons/capita/year = the current global average

3. Tough contraction and convergence

- -> Global consumption maintained on the level of 2000 and the same in every country -> Same level of environmental impact due to population growth
- Industrialized countries reduce by a factor of 3 to 5 (16 to 5-3 t/capita/year)
- Developing states achieve 10-20% reduction in their metabolic rates
- System level innovation



The way ahead

Decoupling

- using less resources per unit of economic output, and reducing the environmental impact of any resources

Absolute resource use reduction at global level (by a factor of 3-5)

What tools do we have to reach this?

How do they effect competitiveness?

Do they provide sufficient incentives to realise this?

Can companies and consumers benefit from this transition?



Thank you for your attention!
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The European Business and Biodiversity Campaign, led by the Global Nature Fund (GNF) was initiated by a consortium of European companies and NGOs. The aim of the initiative is to demonstrate how companies can include biodiversity concerns in their business model and to promote partnerships for biodiversity between companies and NGOs. The Campaign is supported under the LIFE Programme of the EU.

More information: www.business-biodiversity.eu