

Competing claims and tools for biodiversity assessments, Eric Arets

Summary of discussions

GLOBIO model – is a framework to investigate options for reducing global terrestrial biodiversity loss.

Q: Who are the delegates, considering that the policy-makers are setting the target and the lawyers are trying to make it understandable?

A: Only lawyers

Environmental pressures included: land use, nitrogen, climate, (rail) roads – the map as a basis to resize where the roads are, to calculate one value, one indicator.

Mean Species Abundance – of original species; if human impacts increase, some species will increase (the ones more adapted to pressure), and others will decrease. There are some critics about the indicator, but it's showing already an effect, and you can see when it starts to lose species.

Q: Could the indicator be a mediator of disturbance?

A: Yes, more species into the habitat; there are species that will not be present in your ecosystem.

Q: Does MSA make a preference of which species or we just include the species that we want?

A: The correlation is based on literature reviews so the MSA includes the species that impact the system.

Nitrogen comes up or goes down; the degree of change will not be present.

Q: Only things that go down are counted?

R: yes

Comment: "Naturalness" is subjective, changing all the time, so it needs a timeframe; the use of the word "original" is subjective.

Relationship Pressures –mean species abundance

- *Land-use change – forests, grasslands (from primary to pasture to cropland)*
- *Nitrogen deposition*
- *Climate (the problem is that is based on European species)*
- *Fragmentation etc.*

Global Biodiversity Outlook 2 – solution oriented scenarios, the baseline is "business as usual" resulting in 6 policy options

1. *Liberalization of the agriculture market: shift in places they are produced*

2. *Alleviation of extreme poverty and hunger in Sub-Saharan Africa*
3. *Limiting climate change*
4. *Sustainable meat production by implementing standards on meat consumption, will reduce health effects and nitrogen deposition*
5. *Plantation forestry*
6. *Protected areas*

Q: Do we know why the second scenario has such a big impact on the biodiversity loss?

R: Because the meat consumption will increase, so there will be a stronger impact.

Comment: cultural aspects should also be included, not only natural

The answer to this comment is that they try to include more species.

Total crop area for different scenarios – but they are not crystal balls, so the actual trend is the one important, not the numbers

Comment: the analysis has a great strength, it will stimulate lots of discussions; if you look at your major drivers, and you can see how to manage the agriculture; it is suggested to have a system that doesn't maximize the productivity, but uses the input as useful as possible.

Comment: the name of the tool with its biodiversity component is leading to confusion, and the presenter agrees.

Q: If the model has numbers, and the answer is that the next step is to put numbers.

Comment: maybe some assessments for meat consumption based on people's opinion; necessary to apply on a local, regional level.

Comment: What species are we dealing with and what is the right of human response? Some species are very sensitive, and when you combine the effects of all species, than you can compare to regions.

It depends on extensification or intensification, if I have an undisturbed one, than extensification because of the functionality of the system; if you start to extensify in Europe, means more imports from other areas.

If we look at the population scenarios, will it be any possibility to look at birth control as a political measure?

Comment: very dangerous to look at things like that

Comment: If China wouldn't have the one child policy, we would be at 8 billion.

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