



ECOLOGY AND ENVIRONMENTAL MANAGEMENT 2020

The Theory of Change

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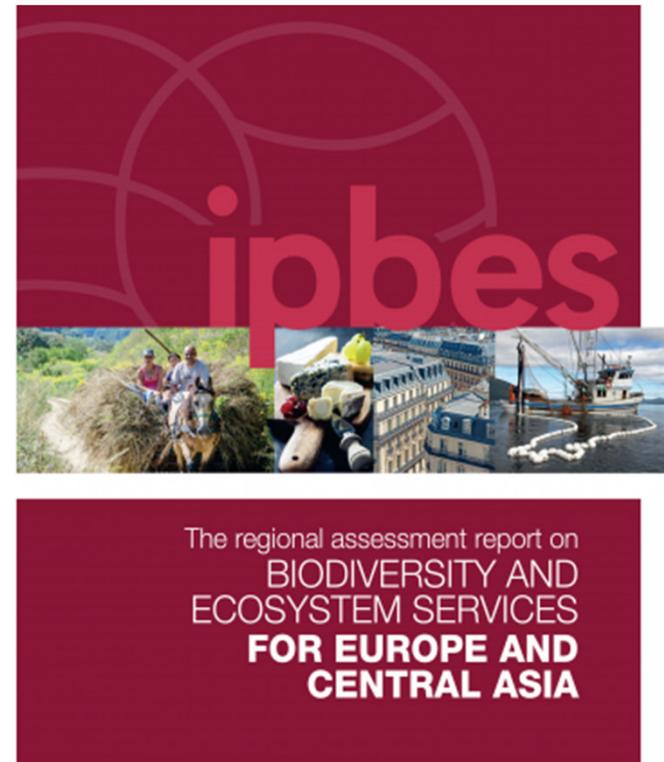


“The past is a foreign country; they do things differently there.” *LP Hartley*

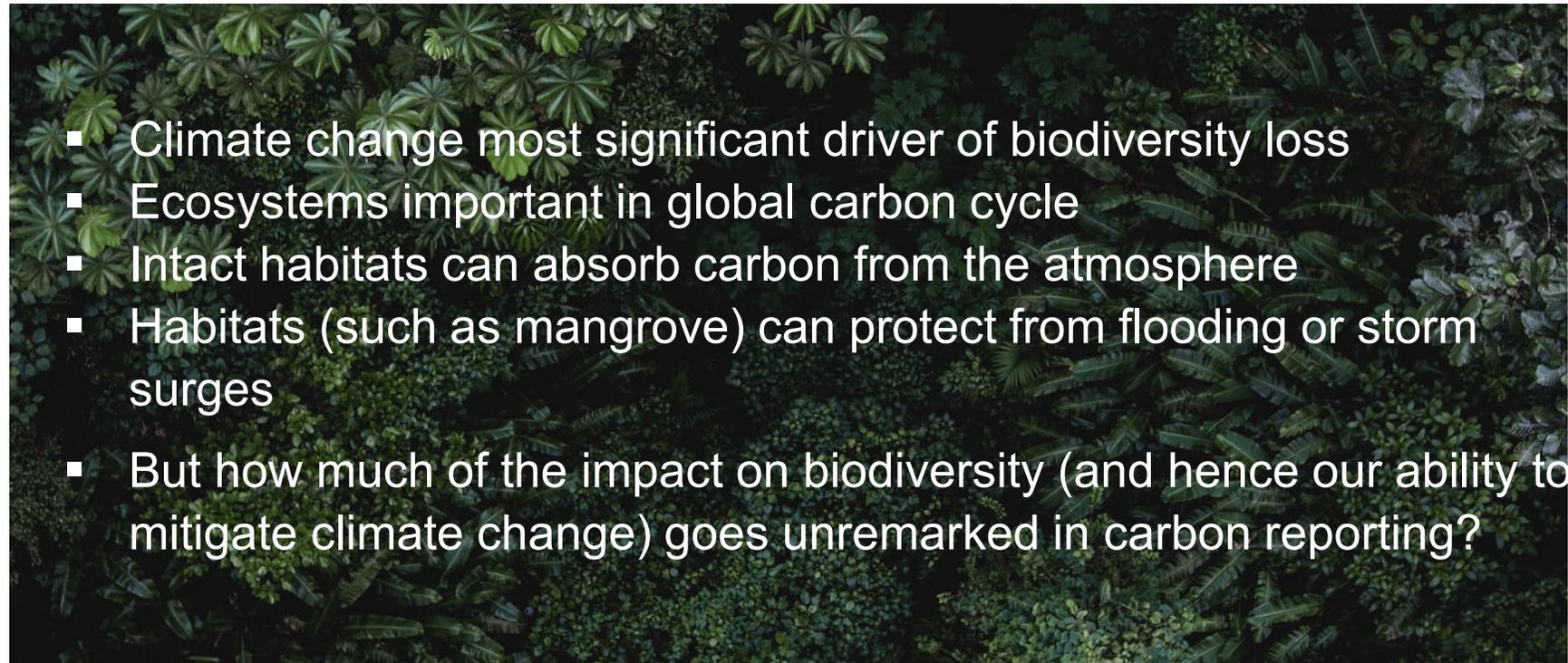


Current Biodiversity crisis

- Unprecedented species extinction
- Extinction rates accelerating
- 1,000,000 species threatened with extinction
- No net loss is no longer enough
- Transformative changes needed



Biodiversity Loss and the Climate Crisis



- Climate change most significant driver of biodiversity loss
- Ecosystems important in global carbon cycle
- Intact habitats can absorb carbon from the atmosphere
- Habitats (such as mangrove) can protect from flooding or storm surges
- But how much of the impact on biodiversity (and hence our ability to mitigate climate change) goes unremarked in carbon reporting?

The Two CoPs



Outline proposals for COP 15 (the Theory of Change)

The vision of the Framework is a world of living in harmony with nature where:

“By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people.”



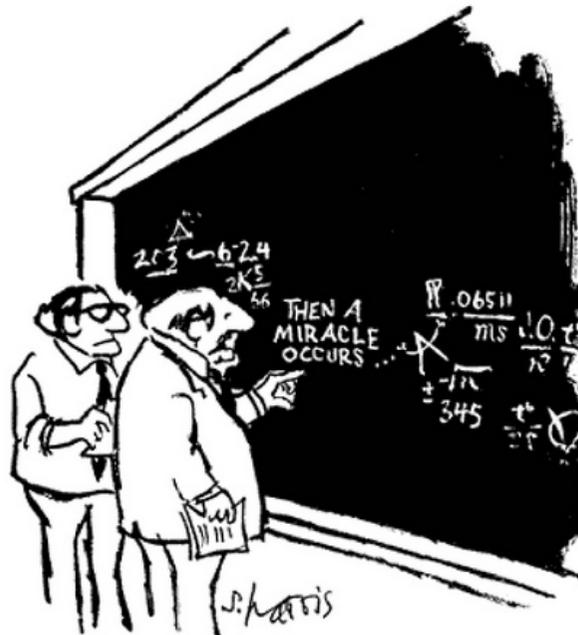
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Outline proposals for COP 15 (the Theory of Change)

The Goals:

- a) No net loss by 2030 in the area and integrity of freshwater, marine and terrestrial ecosystems, and increases of at least [20%] by 2050, ensuring ecosystem resilience;
- b) The percentage of species threatened with extinction is reduced;
- c) Genetic diversity is maintained or enhanced
- d) Nature provides benefits to people contributing to: improvements in nutrition; sustainable access to safe and drinkable water; and resilience to natural disasters.
- e) Increase in the benefits, shared fairly and equitably, from the use of genetic resources and associated traditional knowledge.

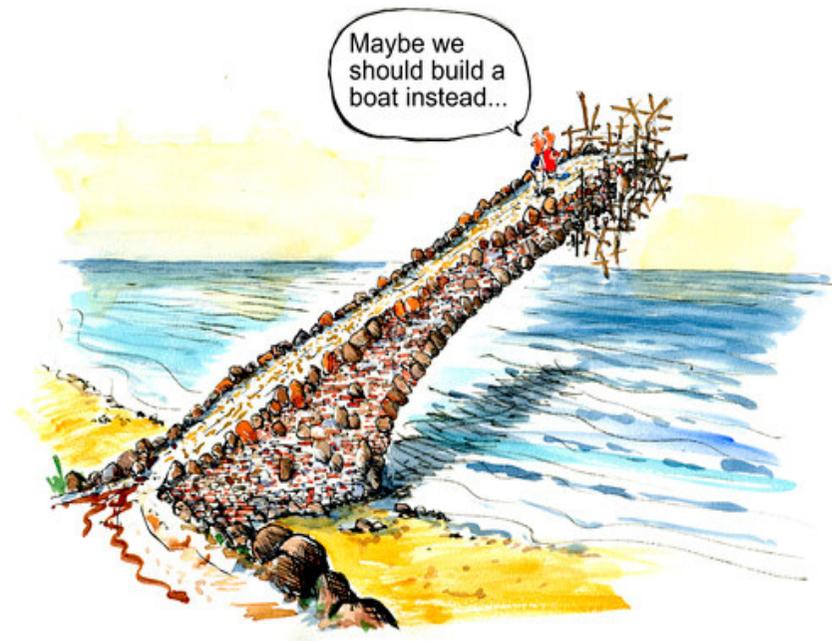
Theory of Change is all about the “missing middle”



"I think you should be more explicit here in step two."

Future Perfect Thinking (*what we will have done*)

- Identify the desired long-term goals
- Work backwards from these to identify all intermediate steps to get back to where we are now
- Understand how they are causally related



So what might a ToC for a world living in harmony with nature look like?

Mainstreaming of biodiversity assessment and protection

- ALL land use and policy decisions – rethinking food production
- Reform incentives
- Integrate biodiversity into all spatial planning
- Reform economic sectors towards sustainable practices
- Capacity building

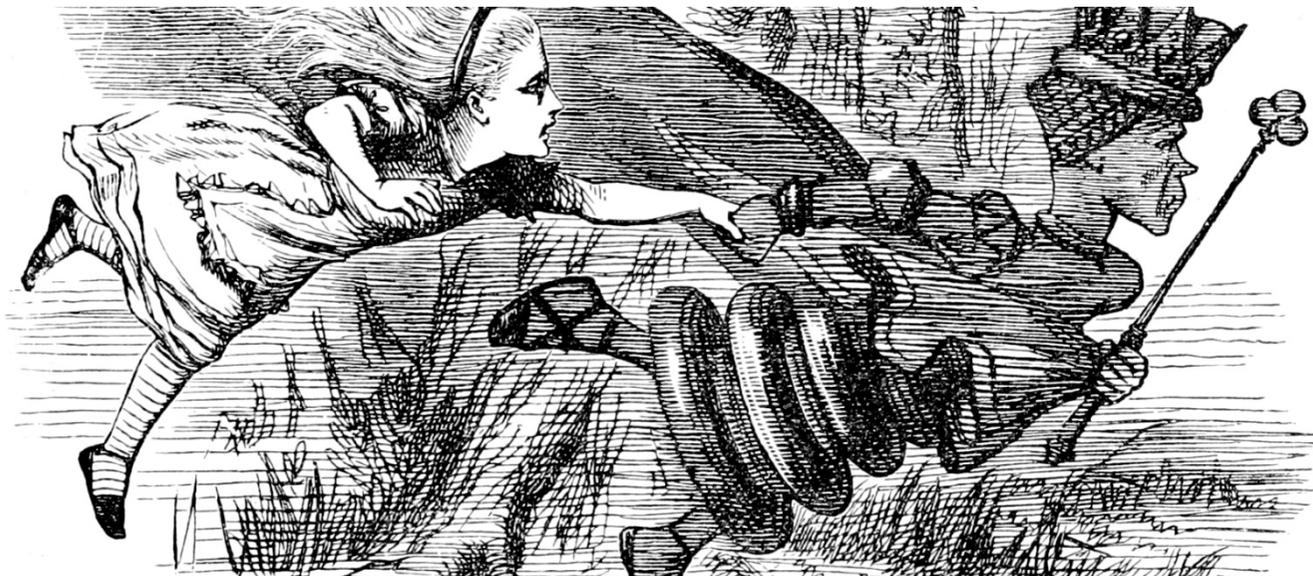
I trust my gut,
Our project is too complex
for logic and evidence.



freshspectrum.com

So what might a ToC for a world living in harmony with nature look like?

Reduce threats to biodiversity by ensuring no net loss of area or integrity of freshwater, marine and terrestrial ecosystems by 2030



“Here you need to run as fast as you can, just to stay in the same place”. As depicted by John Tenniel

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So what might a ToC for a world living in harmony with nature look like?

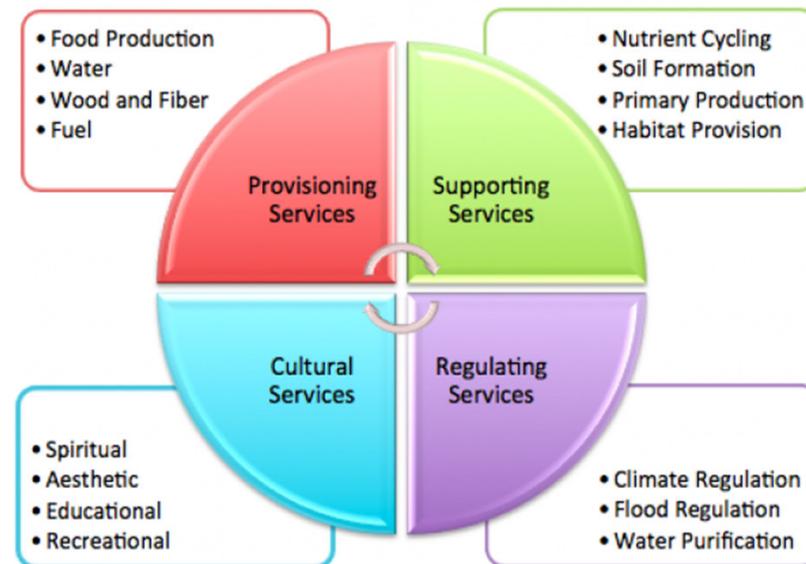
Reduce the % of species threatened with extinction with recovering species numbers



So what might a ToC for a world living in harmony with nature look like?

Ensure sustainable use of ecosystem services

Which basically means completely re-think free market economics (Well what else are we going to do in lockdown?)



Source: Millennium Ecosystem Assessment, 2005.

What level of evidence do we need?

Wow, your program was developed using research based theory. I think ours is based off of some rich guy's gut instinct.

Florida: endangered sea turtles thriving thanks to Covid-19 restrictions

Researchers are seeing an increase in nests as restrictions keep humans and harmful waste off beaches

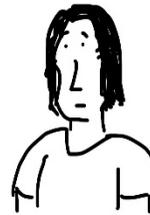


▲ A leatherback turtle in Florida. Photograph: Mark Conlin/Getty Images

Marine life researchers in Florida say that coronavirus restrictions keeping humans and harmful waste off beaches are having a beneficial effect on the numbers of endangered leatherback sea turtles in the state.

www.theguardian.com/

29 April 2020



freshspectrum.com



New Delhi's India Gate war memorial on 17 October 2019 and on 8 April 2020. www.theguardian.com/

Changing Policy in the Post-Truth Era

Happy EarthDay

Today, for one day, let's not be scientists. Let's not explain nature with complex algebra, or demonstrate its value with economic models.

Today, let's just go outside. Feel the earth beneath our feet, the sun on our faces, and let our spirits soar with the joy derived from that perfect shade of green artists strive to reproduce.

This planet is our home. It matters.



So what is CIEEM doing?

- Attending the CoPs in Glasgow and China
- Attending the IUCN World Congress
- Working with other NGOs to develop position statements and policy proposals
- Lobbying for meaningful change

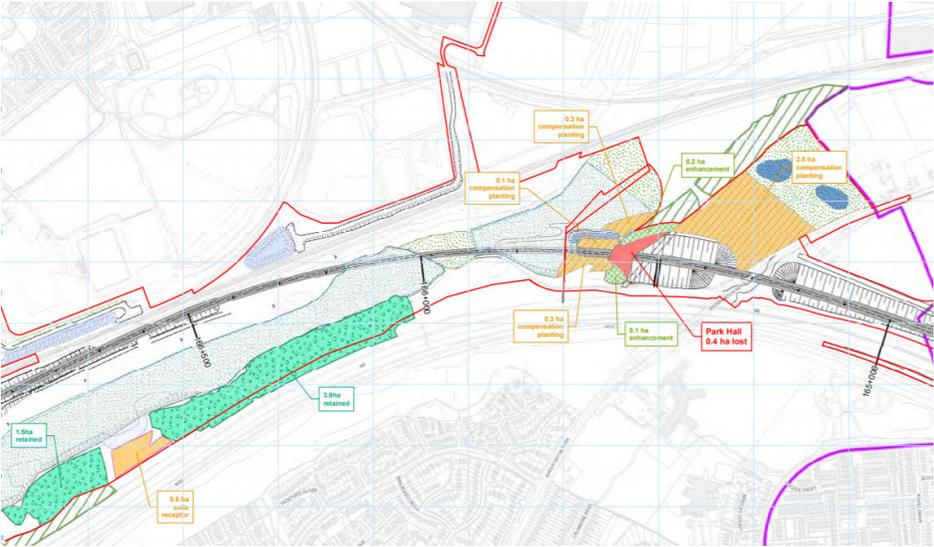


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And how will it affect our work as ecologists?

1. Mitigation and compensation at scale



hs2

High Speed Two
Phase One: London-West Midlands
Ancient Woodland Strategy

August 2017

www.gov.uk/hs2

And how will it affect our work as ecologists?

2. Rewilding on / off site



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And how will it affect our work as ecologists?

3. Biodiversity Net Gain v Environmental Net Gain

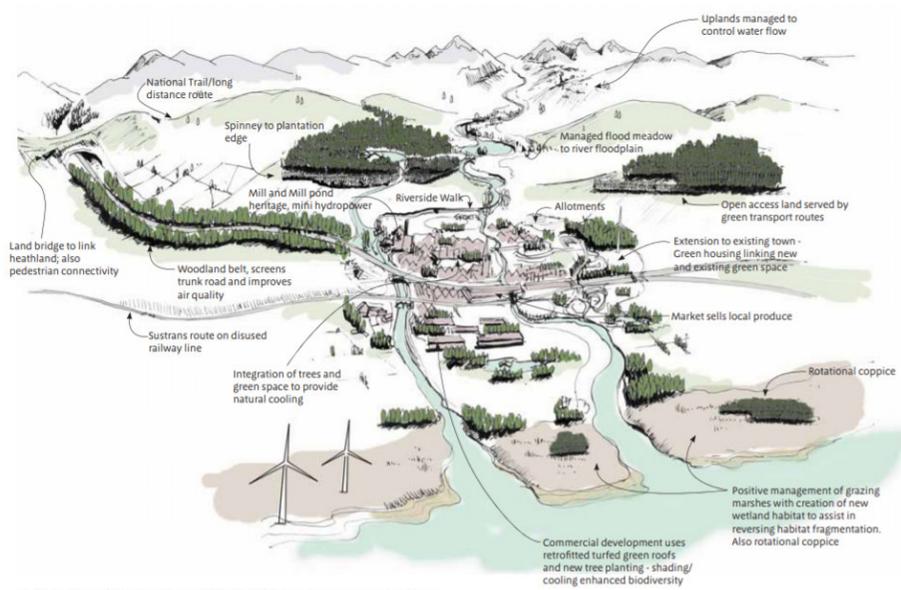


Figure 3.9: Green infrastructure, multifunctionality and place-making - example 1

The Big Ideas for Big Challenges

- Make reporting on biodiversity and ESS impacts mandatory
- Combine policy on climate change and biodiversity through the CoPs
- Governments to appoint Chief Ecologists and to test all policies for their effects on nature
- Mainstream biodiversity assessment across all land use decisions (a natural infrastructure plan)
- 30% of land and sea area under conservation measures; 10% strictly protected
- Rethink the economic system as though the environment mattered



The Big Ideas for Ecologists and Environmental Managers

- Don't use waiting for the evidence as an excuse for inaction
- Don't be afraid to appeal to hearts and minds rather than rationality
- In all your projects – do more. Do bigger, do better, more diverse, better connected.
- Is local really always better? Think about the benefits of large scale rewilding. Can you do both?
- Don't just think about biodiversity – which other benefits can you deliver?
- This is our time. Be heard.



