



Transforming the world
to sustainability

IEMA Futures: *Introduction to biodiversity and net gain*

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Introduction

- Biodiversity is essential to sustain our society and economy. Over the past 50 years, humans have dramatically altered ecosystems. These changes have contributed to substantial net gains in human well-being and economic development but have been achieved at the cost of biodiversity.
- In this webinar we're going to take it back to basics, looking at what biodiversity is, the threats and what we can do to make a positive difference.

Today's speakers



Kirsty Peck
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Webinar slides and recording

This webinar is being recorded and will be made available alongside the slides after the webinar



Q&A

Send in your questions as we go through the session- we'll have some time at the end to go through these!



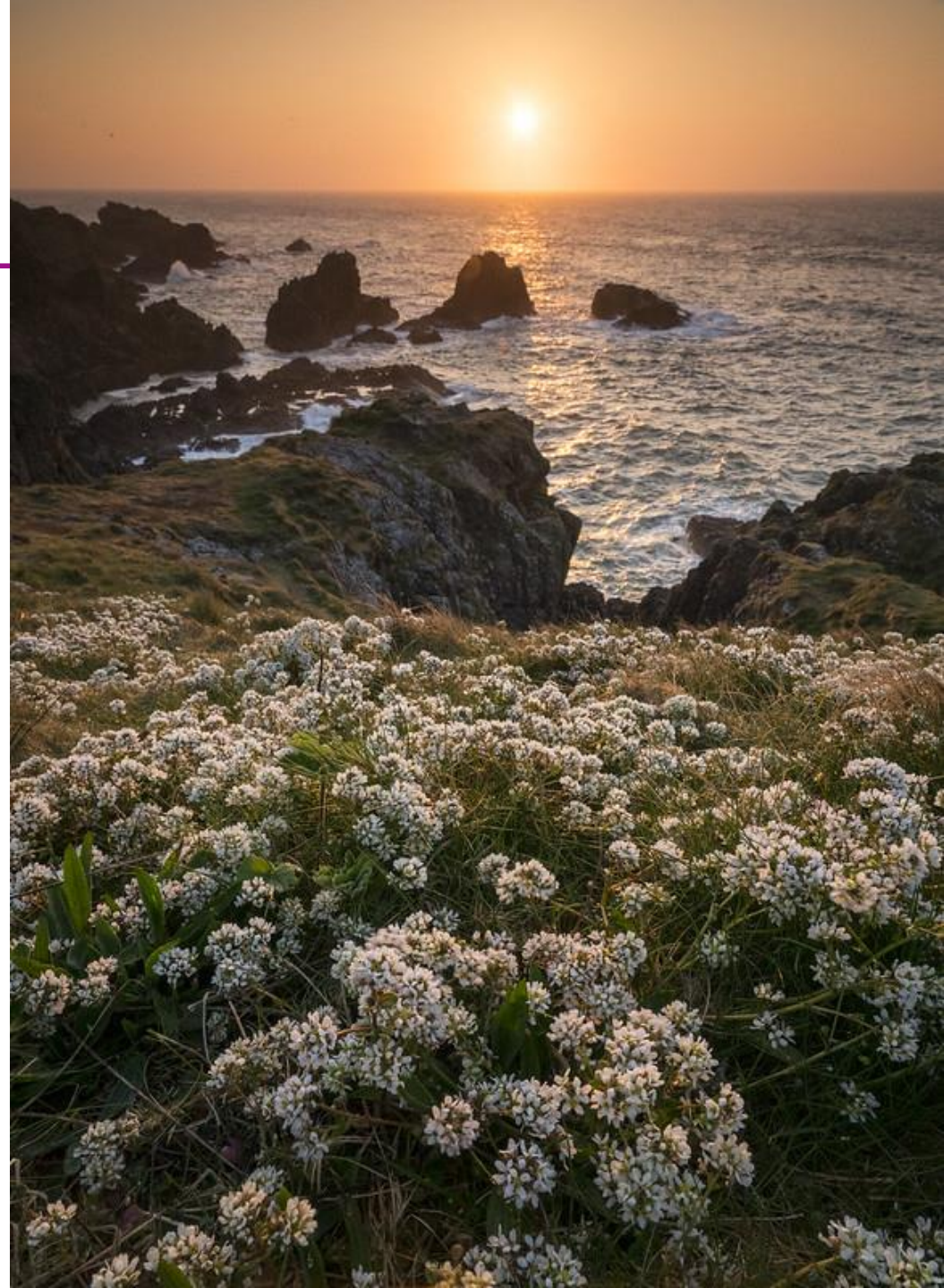
IEMA Futures

- IEMA Futures is a network of students, graduates and early-career professionals. The aim of the network is to engage our audience with environment and sustainability issues so that we can create a community, learn together and get our voices heard as the younger professionals in the industry.
- Email futures@iema.net to join or for more information



Topics we will cover:

- What is biodiversity?
- Why should we care?
- What are the main threats?
- Are we really in an Environmental Emergency?
- What can we do about it?
- What role could you play?





What is biodiversity?

What is biodiversity?

- Biological diversity
- “The variability among living organisms from all sources including, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are a part; this includes diversity within species, between species and of ecosystems” (CBD)
- Each level important for resilience
- Genetic to ensure resilience to disease, climate change, habitat changes
- Species to maintain ecosystem function
- Communities and ecosystems to maintain health and integrity of planet
- Feedback loops and interconnectedness





Why should we care?

Why should we care?

- Intrinsic value
- Value to humans
- Economic
- Cultural and recreational
- In short: essential to life as we know it





What are the main threats?

Threats

- Megatrends – drivers of habitat and species loss
- Top 5 drivers of biodiversity loss globally:
 - (1) changes in land and sea use – farming, urban
 - (2) direct exploitation of organisms – fishing, hunting
 - (3) climate change – habitat loss, disease, water temp. etc
 - (4) pollution – plastics, chemicals, air
 - (5) invasive alien species – disease, predation, competition





Are we really in an
environmental emergency?

Environmental emergency

- Unfortunately – yes
- IPBES report - most comprehensive assessment of its kind
- Nature’s Dangerous Decline ‘Unprecedented’
- 1,000,000 species threatened with extinction
- Species Extinction Rates ‘Accelerating’
- Current global response insufficient;
- Negative trends in nature will continue to 2050 and beyond in all of the policy scenarios explored in the Report, except those that include transformative change
- Opposition from vested interests



Environmental emergency II

- State of Nature report for the UK
- 70 wildlife groups and government agencies
- 13% decline in average abundance across wildlife studied
- 41% of UK species studied have declined, 26% have increased and 33% show little change since 1970
- declines continue and the pressures on nature intensify





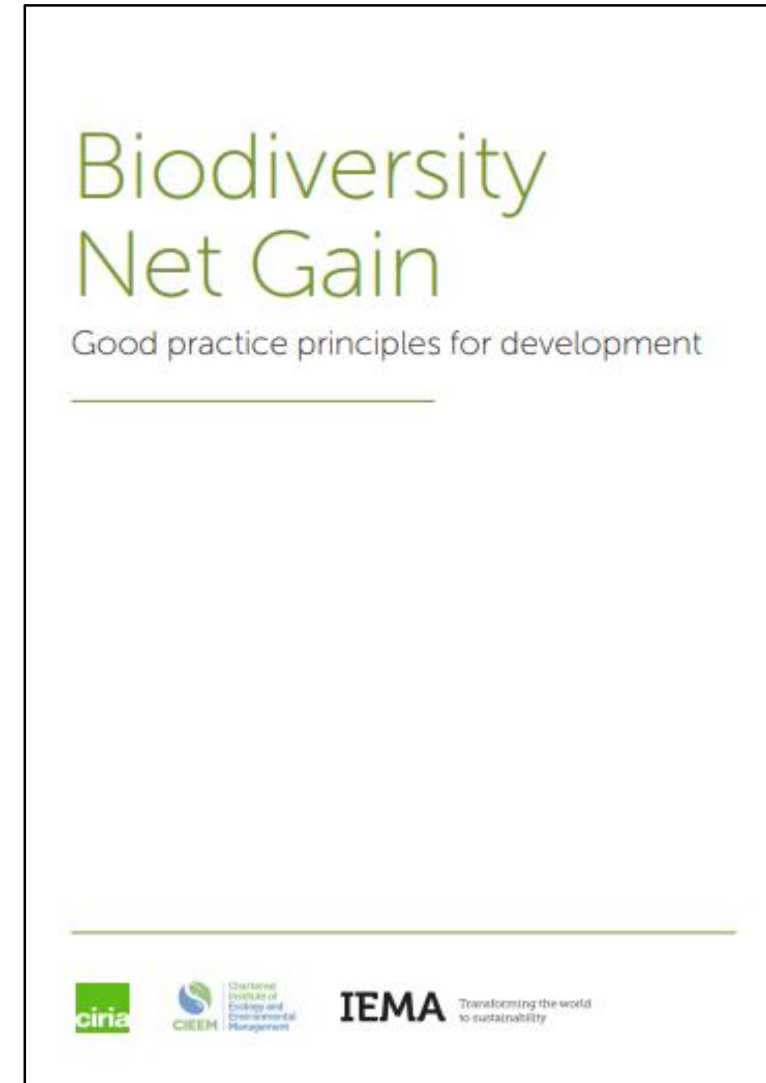
What can we do about it?

What can we do about it?

- Transformation needs to happen at a global scale
- Need political acceptance and strong legislative protection and recovery plan
- Need to address biodiversity impacts happening overseas
- Regenerative models of production (and consumption)
- Reform our agricultural system and fisheries policy
- Strengthen planning laws and increase scale of habitat protection
- Combat climate change
- Use tools such as natural capital, biodiversity net gain to increase value of nature in decision-making
- New solutions like rewilding

What is Biodiversity Net Gain?

- “An approach to development that leaves biodiversity in a better state than before”
- Losses in biodiversity are quantified and must be outweighed by gains elsewhere
- 10 Principles for a robust process including avoiding irreplaceable biodiversity and following the mitigation hierarchy
- Additional step is creating or improving new habitat and calculating expected losses and gains
- Principles, Guidance, Standard and legislation all taking shape



What is natural capital?

- “Natural capital is another term for the stock of renewable and non-renewable resources (e.g. plants, animals, air, water, soils, minerals) that combine to yield a flow of benefits to people.”
- Underpinned by biodiversity
- Language taken from financial world – similar to a stock of money or other goods – basically the amount but sometimes also the quality
- Helpful for understanding changes in amount and quality of key “natural assets”
- Can be measured in similar way as other capitals – not necessarily in ££££



What role could you play?

Impact assessment

- Assesses impacts of development on the environment (including on biodiversity) to determine if any effects are significant
- Supports better design, avoiding and minimising impacts, proposing mitigation measures and identifying compensatory actions
- Supports transparency and engagement by the public
- Incorporates new requirements such as Biodiversity Net Gain and Environmental Net Gain

Environmental management

- Manages the impacts that businesses and organisations have on the environment
- Can cover the design, use and disposal of products or services
- Incorporates waste, pollution, resource efficiency, supply chains
- Broader environmental management covers land use and management of the natural environment
- Examples include the effects of single use plastics on the marine environment, the quality of freshwater environments or the management of land for grazing

Corporate sustainability

- Determines the approach that organisations will take to environmental (and other) issues in their business model
- Requires an understanding of an organization's impacts and dependencies on the natural environment
- Often involves public commitments that are aligned to scientific advice and societal aspirations for the environment
- CSR often separate to business model - donations, sponsorship etc.

Policy and advocacy

- Help shape the “rules of the game”
- Central land local government
- Professional bodies, coalitions and NGOs
- Standards development and good practice



Personal action

- Volunteer
- Donate
- Join an environmental group
- Learn more about your impacts and choices
- Look after your backyard
- Enjoy some nature!





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Thank you and questions!

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Want to know more?

IEMA Futures will be hosting an event on biodiversity and net gain in Bristol in June this year.

Look out for more information coming soon!

Keep an eye out for the rest of the IEMA Futures 'Introduction to' webinar series!



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