

# Biodiversity Net Gain:

## Introduction to Principles & Challenges for Developing Guidance

Workshop - 9/12/2016

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CIEEM, CIRIA and IEMA have recently published the UK's first set of good practice principles on Biodiversity Net Gain. These principles provide a framework for industry to help improve the UK's biodiversity by contributing towards strategic priorities to conserve and enhance nature. They also provide a way for industry to show that projects followed good practice when seeking to achieve net gains in biodiversity.

This workshop, held on 9<sup>th</sup> December 2016 in London, was co-hosted by IEMA, CIEEM and CIRIA to build on their Net Gain initiative. The aims were firstly to explore and better understand the challenges in achieving this approach to Net Gain, especially challenges faced by professionals, industry and stakeholders. Secondly, to scope the key questions that the forthcoming guidance on Net Gain must address. This guidance is being developed by CIEEM, CIRIA and IEMA during 2017, and will contain practical advice on implementing the principles, definitions of key terms and case study examples. The workshop was attended by 40 people who included representatives from ecological consultancies, academia, government and industry.

After Nick Blyth (Policy and Engagement Lead, IEMA) introduced the workshop, Oliver Taherzadeh (Cambridge University) presented his study '[No Net Loss of What, for Whom?](#)'. Oliver's study illustrated the variety of opinions on two key aspects of No Net Loss – ecological compensation and social compensation. Julia Baker (Biodiversity Technical Specialist, Balfour Beatty) presented the Net Gain Good Practice Principles. The principles were developed in consultation with various stakeholders including government, NGOs and industry, as well as testing through workshops and webinars with over 450 professionals. The intention is to test and refine this set of principles, and develop practical guidance to support implementation. The principles can be downloaded from: <http://www.iema.net/policy/natural-environment/principles-and-guidance>

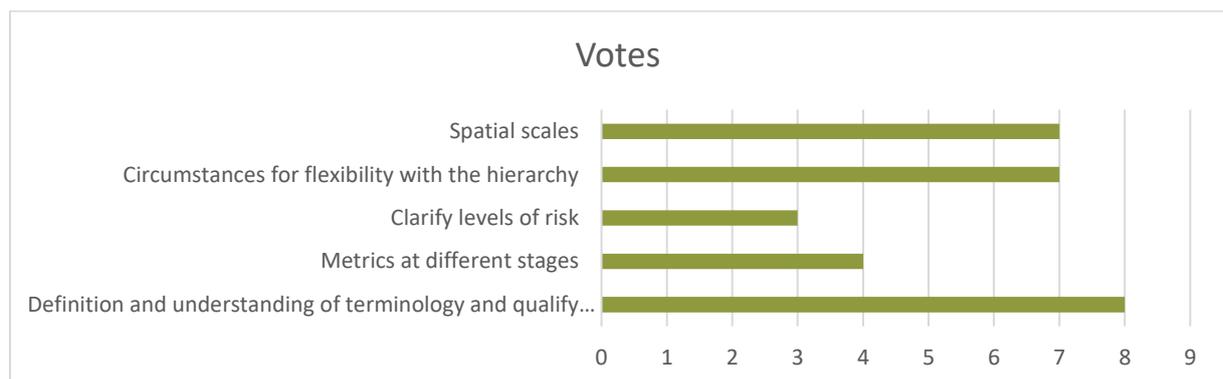
Nick and Julia then led the group work. Firstly, working individually, for each principle participants wrote key issues and questions that they felt were important for the practical guidance to address. Then within groups participants shared their responses and decided on a consolidated list of questions. Finally, from all questions by all groups, each participant voted on the most important questions that the practical guidance must address. Participants had a limited number of votes in order to encourage them to select the really key questions, which meant that there were no votes for some of the principles.

The table and graphs below illustrate the outputs from the group work.

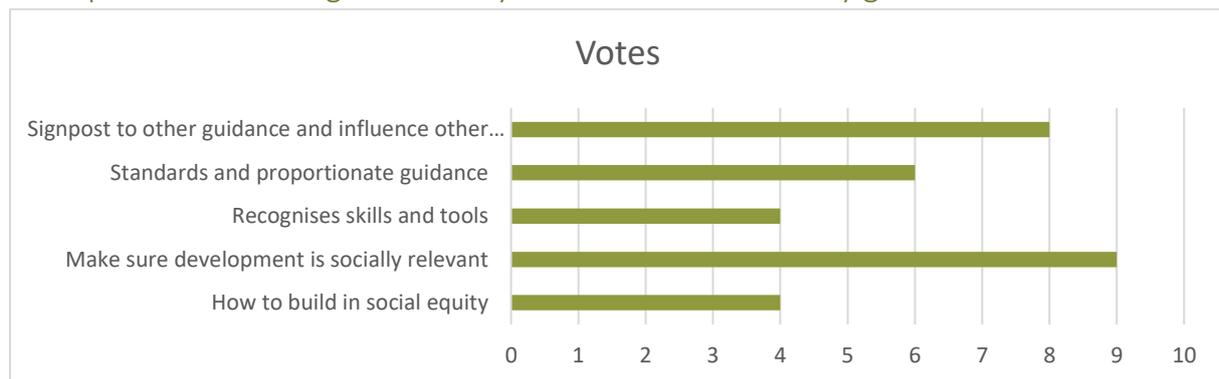
## Principle 1: Mitigation Hierarchy

### Key Questions for the Practical Guidance

<b>Terminology</b>	<ul style="list-style-type: none"> <li>• The term 'where possible' is too open to interpretation. Who determines what is possible?</li> <li>• Title= what is biodiversity? Habitats, ecological systems, species, biodiversity jargon</li> <li>• Define 'Values' encompassed in mitigation hierarchy. Like this: Focus on average control before NWL/Net gain policies</li> <li>• What does 'everything possible' mean?</li> <li>• How and when do we apply the mitigation hierarchy and what is it?!</li> <li>• How do you enforce and manage mitigation?</li> <li>• Need to establish rigour in the criteria for moving through the hierarchy</li> </ul>
<b>Spatial and temporal scales</b>	<ul style="list-style-type: none"> <li>• Who are the external decision makers? How are they defined?</li> <li>• How close to the site is acceptable?</li> <li>• Acceptable proximity of offsite gains need setting out</li> </ul>
<b>Metrics</b>	<ul style="list-style-type: none"> <li>• Defra metric doesn't account for the entirety of the impact</li> </ul>
<b>On site vs off-site</b>	<ul style="list-style-type: none"> <li>• How to prevent a compensation culture?</li> <li>• How is the hierarchy followed in practice to avoid the compensation culture?</li> <li>• Mitigation hierarchy traditionally favours <u>on-site</u>. But offsetting tends to assume <u>off-site</u></li> <li>• How do you determine that compensation can be delivered on site- is this a commercial decision? Need rigour in applying decision making.</li> </ul>
	<ul style="list-style-type: none"> <li>• How to reconcile 130 metrics outside and impacts outside footprints and clients wish on what to prioritise</li> <li>• How are high risk and impacts determined for applying the hierarchy?</li> <li>• When does restoration apply</li> <li>• Overall graphic to show flow process and give overall picture</li> <li>• Considerations/drivers for selecting offset sites where no local sites are available?</li> <li>• Social/nature access hierarchy</li> <li>• How is a 'loss' calculated?</li> </ul>



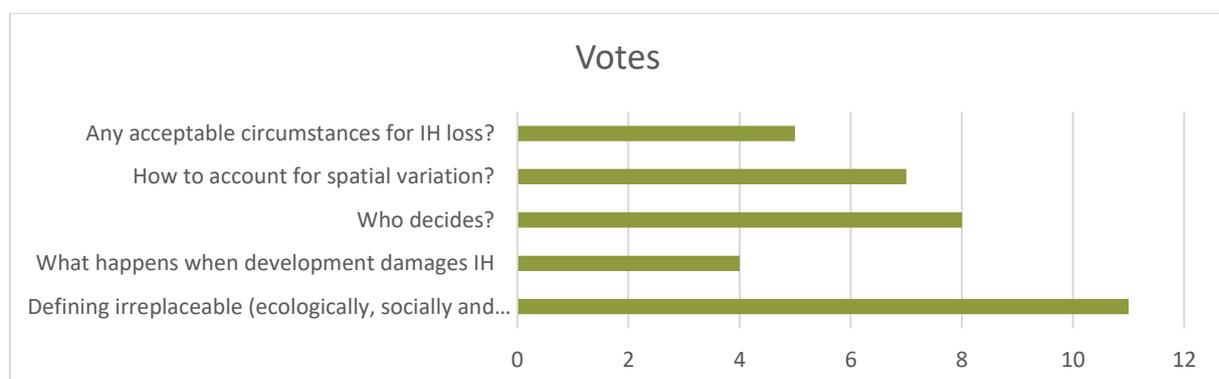
## Principle 2: Avoid losing biodiversity that cannot be offset by gains elsewhere



## Principle 3: Be inclusive and equitable

### Key Questions for the Practical Guidance

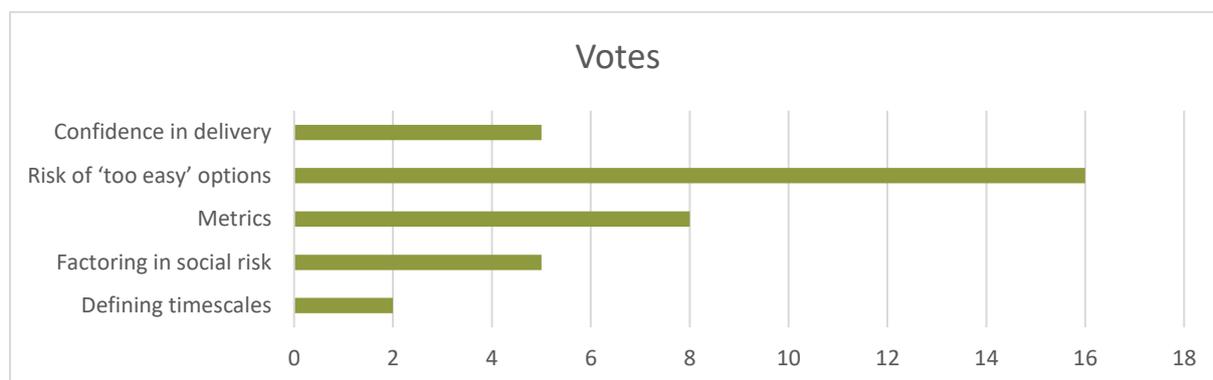
<b>How-to</b>	<ul style="list-style-type: none"> <li>• How do you get stakeholder engagement?</li> <li>• How do you engage successfully and trade engagement outcomes?</li> <li>• Provide guidance on sites: How to ensure all key stakeholders are engaged?</li> <li>• How can we connect developers to appropriate local organisations- provide governance</li> </ul>
<b>Tools</b>	<ul style="list-style-type: none"> <li>• What tools do we use? How is it done elsewhere? Risks? Do we include delivery as well as approach?</li> <li>• Guidance on how early- subjective term</li> <li>• Map stakeholders</li> <li>• Guidance on sharing benefits fairly</li> <li>• Need a transparent toolkit</li> <li>• Lack of resources (will, how will guidance resolve this?)</li> <li>• I think we would need a compulsory framework for this to be effective and consistent</li> </ul>
	<ul style="list-style-type: none"> <li>• How will stakeholder engagement be possible on site of all sizes in a world of decreasing resources- no logical authorities ecosystems/ timely engagement</li> <li>• A process for engagement should be outlined to ensure stakeholders are not mixed and engaged early</li> <li>• Who are the key stakeholders and what is the timeframe doe consultation?</li> <li>• May not be possible to share benefits e.g. if scheme on private land/if landowner change mind/plans change/cant achieve benefits- how to ensure benefits committed to a design stage are delivered?</li> </ul>



## Principle 4: Addressing Risk

### Key Questions for the Practical Guidance

<b>Evaluating risk</b>	<ul style="list-style-type: none"> <li>• How do we evaluate impact at a ecosystem level to ensure appropriate interventions? E.g. not just lots of tree planting</li> <li>• How can net losses be calculated or quantified?</li> </ul>
<b>Risk over time</b>	<ul style="list-style-type: none"> <li>•</li> </ul>
<b>Organisational risk perception and management</b>	<ul style="list-style-type: none"> <li>• How do commercial organisations manager uncertainty?</li> <li>• Please re-write so that it is clear that it is <u>biodiversity</u> risks</li> <li>• Relate the risks to sustainability risks</li> </ul>
<b>Developing practice from past experience</b>	<ul style="list-style-type: none"> <li>• Is there a defined lessons learned forum across industries?</li> <li>• Risks need to be evidenced based and updated as evidence changes?</li> <li>• Are there standards?</li> <li>• Do 'well accepted' ways exist? Is there scientific basis for them?</li> <li>• What are the well-accepted ways?</li> <li>• Guidance on well-accepted ways- give examples of different methods for different types of projects</li> <li>• What is meant by 'well accepted ways to add contingency? Need defining</li> <li>• Need more guidance on how to compensate for lag time between losses and gains (and has climate change been built in?)</li> </ul>
<b>Roles and responsibilities</b>	<ul style="list-style-type: none"> <li>• If offset trashed by outside source/weather, who is responsible and pays for the additional work?</li> </ul>



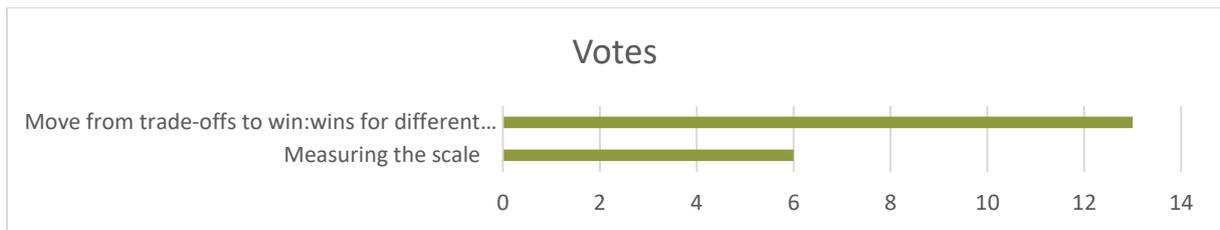
## Principle 5: Make a measurable Net Gain contribution

### Key Questions for the Practical Guidance

<b>Need for standard methodology</b>	<ul style="list-style-type: none"> <li>• Would need a standard methodology</li> <li>• Need clear universal metrics for the commercial/societal gains or benefits from ecosystem services</li> <li>• Guidance needed to agree a pragmatic measure that is simple, clear and unambiguous</li> <li>• Define the methods and monitoring. Does everyone use the same methods?</li> </ul>
<b>Ecosystem services</b>	<ul style="list-style-type: none"> <li>• What ecosystem services?</li> <li>• What about social and ecological compensation</li> <li>• Ecosystem services priorities are still in development phase. Will there be a continuous on thick tool/metric will be adopted</li> </ul>

**Targets and priorities**

- What would a net gain target look like? i.e. how high to you aim?
- Conservation priorities: local, county, country, or worldwide? Which one is the highest priority? Social, ecosystem services included?
- How do we measure biodiversity?
- Flora vs fauna; Legislative; Value of size, quality and temporal?
- ‘Measurable’ need clear benchmarks? Is biodiversity the best thing to measure? Can we use other established indicators including soil and water quality?
- Biodiversity at the site should be calculated along with the functionality loss of nearby habitats that will be negatively impacted by the development
- How do you prioritise the ecosystems services?
- How define conservation priorities? Who does this- LPA’s or NE?



Principle 7: Achieve the best outcomes for biodiversity

Key Questions for the Practical Guidance	
<b>Geographical scales</b>	<ul style="list-style-type: none"> <li>• How do you define local?</li> <li>• How do you balance local vs regional vs national benefits</li> </ul>
<b>Resilience and climate change</b>	<ul style="list-style-type: none"> <li>• Good! Need to look at resilience</li> <li>• What is the difference between no net loss and net gain, one tree? What about climate change?</li> </ul>
<b>Terminology</b>	<ul style="list-style-type: none"> <li>• Define ‘best outcomes’</li> <li>• How do we keep tabs on the balance of conservation if we’re compensating with different ssp</li> <li>• The function of a habitat performs for space needs to be considered as well as the basic habitat type when considering</li> <li>• Who measures the outcomes?</li> <li>• Is ‘best outcome’ ever realistic? This statement would always need caveats</li> <li>• Balance development viability and best outcomes</li> <li>• Best short vs long term outcomes</li> </ul>

Principle 7: Be additional

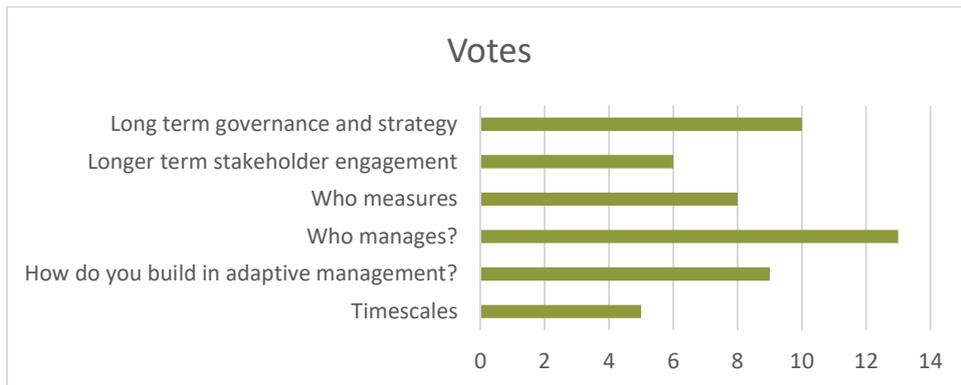
Key Questions for the Practical Guidance	
<b>Definitions and Assumptions</b>	<ul style="list-style-type: none"> <li>• Additional ‘by how much’? Existing obligations includes what? Go beyond planning conditions required?</li> <li>• Guidance on what would be classed as additional</li> <li>• What assumptions should underpin whether its additional or not?</li> </ul>
<b>Stakeholders and management</b>	<ul style="list-style-type: none"> <li>• What id LPA can’t afford to do what it should be doing under ‘existing obligations’?</li> <li>• How do we ensure that LPA factor in no net gain considerations in their planning</li> </ul>

	<ul style="list-style-type: none"> <li>• Establish counterfactuals!</li> </ul>
<b>Monitoring and Measurement</b>	<ul style="list-style-type: none"> <li>• How do you quantify the benefit of providing additional nature conservation outcomes</li> <li>• How will this be policed/monitored</li> </ul>
<b>Scenario Planning</b>	<ul style="list-style-type: none"> <li>• Assumes that you've mapped/assumed what it would be like without development</li> <li>• How to measure additional? Important to measure future scenario loss of area vs benefits of long term management. How to determine whether what is additional</li> </ul>

## Principle 8 Create Net Gain Legacy

### Key Questions for the Practical Guidance

<b>Terminology</b>	<ul style="list-style-type: none"> <li>• How is 'In perpetuity' defined</li> </ul>
<b>Monitoring and Measurement</b>	<ul style="list-style-type: none"> <li>• Who is going to measure net gain long term and evaluate the offsetting scheme</li> <li>• When is 'success' achieved?</li> </ul>
<b>Design and management</b>	<ul style="list-style-type: none"> <li>• Can low (or no) maintenance biodiversity be designed in at the start?</li> <li>• How do you make biodiverse sites sustainable in terms of cost management?</li> </ul>
<b>Futureproofing</b>	<ul style="list-style-type: none"> <li>• Need guidance on CC adaptation measures</li> <li>• How to address/ allow for offset failure</li> <li>• Who is the legacy for?</li> <li>• How do we account for cumulative impacts over time?</li> </ul>



## Principle 9: Optimise Sustainability

### Key Questions for the Practical Guidance

<b>Who manages and How?</b>	<ul style="list-style-type: none"> <li>• Can guidance provide win:win solutions such as SuDS</li> <li>• Who will manage schemes in the long term? Landscape level investments</li> </ul>
<b>Terminology</b>	<ul style="list-style-type: none"> <li>• Priorities against what? No. of bedrooms?</li> <li>• Quite ambiguous and need clear guidance to give a wider bandit for health, wellbeing and access to nature</li> <li>• Similar to principle 5)</li> <li>• What does this mean exactly?</li> </ul>

## Principle 10: Be transparent

### Key Questions for the Practical Guidance

<b>Roles and responsibilities</b>	<ul style="list-style-type: none"><li>• Who coordinates this?</li><li>• Liability: will creativity and a new way to do things be crushed because of possibility it will go wrong?</li></ul>
<b>Monitoring and Management</b>	<ul style="list-style-type: none"><li>• Robust/scientific assessment of outcomes required</li></ul>

# PRACTICAL GUIDANCE

## Supporting guidance

The principles are broad by necessity so that they apply to a wide-ranging industry. This means that their proper interpretation is critical. CIRIA, CIEEM and IEMA are developing guidance that will contain practice advice on implementing the Net Gain principles and definitions of key terms. This guidance will be available in 2017, and a steering group will be overseeing its production and consultation with a variety of stakeholders.

Part of that stakeholder consultation is discussing a credible, proportionate way to audit implementation of Biodiversity Net Gain. While this is in progress, developments claiming to achieve Biodiversity Net Gain must provide evidence that clearly demonstrates they have implemented and adhered to the good practice principles.

## How you can get involved

If you would like to be kept informed of progress with our Biodiversity Net Gain practical guidance, please visit [www/ciria.org/netgain](http://www/ciria.org/netgain) for further information.

If you are able to sponsor or otherwise contribute towards the cost of developing the Biodiversity Net Gain practical guidance, please contact [owen.jenkins@ciria.org](mailto:owen.jenkins@ciria.org)

## BIODIVERSITY NET GAIN



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