***­­­environmental SCIENTIST* journal: Learning Resource Notes**

The purpose of these educational resource notes is to provide a format for informal, seminar-style discussions of the topics explored in the latest edition of the journal of the Institution of Environmental Sciences.

Through discussion of the ideas and issues presented within the journal, they aim to supplement and enhance students’ knowledge and understanding of a broad range of environmental science issues and provide insights into the professional concerns of practising environmental scientists.

**Articles in focus**

The below articles have been selected as particularly relevant for in-depth discussion, allowing for wider debate of the key elements of the article topic. Some specific questions you may wish to consider when reading and discussing these articles are outlined.

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| Learning outcomes | * Understand the main concepts and challenges discussed in the edition
* Describe the conclusions reached by authors, and identify their relevance to the environmental science sector
* Critically reflect on the ideas presented
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| Format | * Articles of particular interest are to be selected and shared with the group to read ahead of the discussion. Suggestions of focus articles are described below.
* Small group discussions of articles that closely relate to programme content to supplement learning.
* Discussions can be led by participants or the tutor, using the ‘articles in focus’ resource to prompt debate and aid the conversation.
* The suggested discussion points and questions provided in this pack for selected articles can be used as a starting point to guide the discussion.
* Students can be encouraged to choose to discuss any of the other articles within the issue.
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e*nvironmental SCIENTIST* **Counting on Net Gain**Vol 34, issue 3

<https://www.the-ies.org/resources/counting-net-gain>

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| **Topic overview**  | This issue of the journal examines an idea that has been gaining traction in environmental thinking: net gain.Approaching this topic from a range of different disciplines and perspectives, articles in this issue of environmental SCIENTIST consider the opportunities and limitations of net gain, as a global policy and regulatory framework, and as a way of thinking that can shape our understanding of progress and development.Contributors in this issue examine specific policies, such as the now-mandatory Biodiversity Net Gain, which came into effect in England in February 2024, as well as broader conceptualisations of the term that incorporate marine life, the wider environment, and our society.Situating net gain in a global context, articles will respond to important questions about its usage and implementation: including what challenges do policymakers face when addressing such complex and far-reaching goals? How can landowners and other stakeholders become engaged with long-term and complex environmental protection practices? Is net gain a concept that should be extended to other areas of environmental protection and policy, beyond just biodiversity?By bringing together voices at the cutting edge of these sectors, this issue takes a holistic and informed perspective on the emergence of net gain both as a policy and an ideological framework. |
| **Articles in focus** |
| **‘Brownfield regeneration and biodiversity net gain’****(Jon Davies and Tom Henman, p. 12)** | **Article overview:** This article looks at the challenges posed by brownfield sites when identifying areas for development in light of the biodiversity net gain policy. |
| * What does the new biodiversity net gain law require of developers?
* Describe one of the challenges for developers when they are hoping to develop new housing on brownfield land.
* Discuss the value of other natural capital benefits that developing a brownfield site could offer, and weigh these up against the potential biodiversity benefits.
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| **‘Embedding marine net gain into offshore wind farms’****(Bruno Agochukwu, p. 66)** | **Article overview:** In this article, the author considers how the concept of marine net gain could be applied in the context of offshore wind farms, and the conflicting interests that are brought to light when establishing a marine net gain approach to development in our oceans. |
| * Identify two methods that offshore wind farm developers could adopt to improve the biodiversity impacts of their installations.
* Discuss how the measurement of terrestrial biodiversity net gain differs from how marine net gain could be measured.
* Evaluate the barriers to establishing a marine net gain policy similar to the biodiversity net gain (BNG) policy, giving two examples.
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| **‘What will biodiversity net gain mean for smaller builders?’ (Rico Wojtulewicz, p. 92)** | **Article overview:** In this article, the author takes a critical perspective on the biodiversity net gain policy, to examine how the new mandatory requirements will affect smaller builders and their business needs.  |
| * This author describes the benefits of on-site BNG. What advantages might off-site BNG have compared to on-site BNG?
* Choose a case study to discuss from the bullet point list on p. 95-96. How do these scenarios demonstrate the challenges of BNG for smaller builders and developers?
* Analyse how BNG can impact the value of land to developers.
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