***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 following 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/points you may wish to consider when reading and discussing these articles are outlined.

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| Learning outcomes | * Understand the main ideas discussed in the publication
* Describe the main conclusions and their relevance to the environmental science sector
* Critically reflect on the main concepts discussed
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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 attached here
* 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* **Creating a sustainable future: the Decade of Ocean Science**Vol 30, Issue 1

[www.the-ies.org/resources/creating-sustainable-future](http://www.the-ies.org/resources/creating-sustainable-future)

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| **Topic overview**  | The wellbeing of people and the ocean is linked through a wide range of ecosystem services, include climate regulation and food security. The Decade of Ocean Science for Sustainable Development (2021-2030) aims to provide a framework to generate the global ocean science needed for sustainable development of our shared ocean. This edition examines the 10 challenges of the Decade where efforts will be concentrated. Articles examine topics such as the impacts of climate change on coastal systems, actions needed for sustainable marine food production, building resilience to coastal hazards, and how marine professionals and coastal residents can work together to increase ocean literacy. |
| **Articles in focus** |
| **A source of nutritious food****Colin Moffat (p.25)** | **Article overview:** This article considers current marine food production and the necessary actions for the ocean to continue to provide us with good-quality food. |
| * What measures are needed to ensure that increases in marine production over time are sustainable? What role do you think the Ocean Decade could play in this?
* Given that marine fishing is a global activity, what do you think might be some of the most significant difficulties for the management of marine fish stocks?
* One of the potential solutions posited in the article that can be generated through the Ocean Decade is large-scale human behaviour change. How do you think this might be most effectively achieved?
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| **Industry engagement with the Ocean Decade****David Millar (p.30)** | **Article overview:** This article outlines the advantages of input from industry for theequitable and sustainable development of the ocean economy. |
| * Why do you think it is so important for ocean businesses to contribute to efforts to reverse the cycle of decline in ocean health and engage with initiatives such as the Ocean Decade?
* With the global ocean economy projected to be worth US$ 3 trillion by 2030, what do you think is needed to ensure that development is both sustainable and equitable? What role should the private sector play?
* How do you think public-private partnerships could be utilised to achieve the Decade outcomes?
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| **The coastal based approach****Natasha Bradshaw, Bob Earll, Peter Barham, Amy Pryor and Mark Everard (p.84)** | **Article overview:** This article outlines a proposal to establish partnerships covering the entire English coast for better oversight and stewardship of coastal and marine resources. |
| * What do you think are the key benefits of collaborative, place-based approaches – bringing together stakeholders such as public bodies, private-sector interest groups and coastal communities – to the stewardship of marine and coastal resources?
* How do collaborative approaches like the coastal based approach differ from traditional top-down governance?
* What benefits do you think the coastal based approach could provide to government and its agencies in the delivery of existing marine/coastal initiatives?
* What linked benefits might there be in terms of wider environmental objectives such as the achievement of net zero emissions targets and a green recovery from the Covid-19 pandemic?
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