



Lesson: Human interactions with ecosystems - Responsible Consumption and Climate Action



ACTIVITY OUTLINE



The focus in this lesson is on the impact of humans on peatland ecosystems, stressing the links with climate change and biodiversity.

Wider social and ecological consequences of peatland degradation are introduced.

Explain to students what a peat land is, its slow formation (1mm/yr) and its role as the biggest terrestrial carbon sink on the planet.

Carbon is being emitted from peatlands by burning, draining and deforestation.

Use the map to identify different parts of the world where emissions are occurring.

Explore how peat acts as a carbon sink and effect of draining in triggering decomposition.

The impact on tropical peatland is explained in the 2 min video

<https://www.youtube.com/watch?v=1C7ecAoXav0>

Students identify Indonesia as currently producing the highest levels of emissions and understand that this is due to the expansion of palm oil plantations.

Much of the oil from these very productive plants is exported and found in many supermarket products.

Introduce the environmental and social impacts of degrading peatlands then students work in groups to arrange the hexagon cards.

Allow plenty time for the students to develop the rationale for their placement of the cards. Their reasoning is much more important than the solution they come up with. There are several blank hexagons on which students can add their own content.

Students could then move round the class to each group who then explains some of the links they have made.

Students summarize by identifying 3 key negative impacts of peatland degradation.

A discussion, whole class or in groups of some of the points raised in speech bubbles will enable students to develop their own ideas and actively listen to others.

Students can then sort the cards into threats and opportunities for securing the future of orangutans.

Identify personal actions which can help preserve peatlands in Indonesia and the UK.



CURRICULUM OUTCOMES



Name ways in which humans reduce the amount of land available for other animals and plants. The decay or burning of the peat releases carbon dioxide into the atmosphere.

Explain the ecological impact of the destruction of peat bogs, and other areas of peat to produce consumer products.

Including the destruction of peat bogs, and other areas of peat to produce garden compost, reduces the area of this habitat and thus the variety of different plant, animal and microorganism species that live there (biodiversity).

Evaluate given information about methods that can be used to tackle problems caused by human impacts on the environment.



Lesson: Human interactions with ecosystems - Responsible Consumption and Climate Action



GLOBAL LEARNING OUTCOMES



RESPONSIBLE
CONSUMPTION
AND PRODUCTION



Students can explain why the protection and renewal of carbon sinks are essential strategies to slow climate change and name some different types

CLIMATE
ACTION



Students can provide examples of how mass production processes can lead to the degradation of natural resources

SMSC / British Values - Understanding of the consequences of their behaviour and actions

Action

Campaign to Protect Rural England



Connect with 'the countryside charity' who work across England to preserve our countrysides.

They work for a countryside that's rich in nature, accessible to everyone and playing a crucial role in responding to the climate emergency. With a local CPRE group in every county, there is plenty get involved with.

Check their website to see campaigns by your local group:
<https://www.cpre.org.uk/>



The project has been funded with support from the European Commission. The contents of this publication are the sole responsibility of Leeds DEC and do not necessarily reflect the opinion of the European Union.