

# GOAL 14: BIODIVERSITY

## INTRODUCTION – Why is this a Global Justice Issue?

*“Nature makes human development possible but our relentless demand for the earth’s resources is accelerating extinction rates and devastating the world’s ecosystems.”*

– **Joyce Msuya**, Acting Head, UN Environment

A 2019 UN report by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) has found that nature is declining globally at rates unprecedented in human history. Biodiversity is very much a Human Rights issue. The loss of biodiversity can have catastrophic impacts on human health and wellbeing including at a very basic level access to food and clean water. The report highlights the impacts of the biodiversity crisis on society with current trends indicating in biodiversity and ecosystem services will undermine the progress towards 80% of the targets within the sustainable development goals (Global Goals).

A quote from the IPBES report:

*“The health of ecosystems on which we and all other species depend is deteriorating more rapidly than ever. We are eroding the very foundations of our economies, livelihoods, food security, health and quality of life worldwide.”*

The main driving factors are:

1. **Changes in land and sea use** (farming, mining, deforestation)
2. **Direct exploitation of organisms** (overharvesting of species and natural resources e.g. overfishing, overharvesting, hunting etc)
3. **Climate change** - have already have irreversible impacts on biodiversity
4. **Pollution** e.g. land, air, water
5. **Invasive species**

The recognition **of interconnectivity and inequality** related to biodiversity is important here, with resource extraction and production taking place in one part of the world to satisfy the wants of consumers in another.

At least a quarter of the global land area is traditionally owned, managed, used or occupied by Indigenous Peoples. While these lands are increasingly under pressure their rate of biodiversity decline is generally declining less rapidly than other lands. Areas home to Indigenous peoples and some of the worlds poorest communities are projected to experience significant impacts from climate change, loss of biodiversity, ecosystem functions and natures contributions to people. Learning from, and acting in solidarity with, Indigenous peoples and communities that are protecting biodiversity through a range of approaches is essential.

The report presents 6 policy scenarios in response including ‘Regional Competition’, ‘Business as Usual’ and ‘Global Sustainability’. It is concluded that only **transformative change** can have an impact. This is a fundamental, system-wide reorganisation across our social, economic and technological goals and values – from local to global.

In response to the UN report, Pádraic Fogarty of the Irish Wildlife Trust:

*“Our seas have been emptied . . . Nature has all but vanished from our hills, rivers and farmland due to pesticide use, wild fires, land drainage, pollution, plantations of conifers, reseeded and artificial fertilisation of soil and neglect of our ancient hedgerow network.”*

### **Link to Covid 19**

The links between the destruction of biodiversity and the Covid-19 virus have been discussed at length during the pandemic. Indeed according to the Wildlife Conservation Society, 60% of emerging infectious diseases originate in animals (aka: zoonotic) and of more than 30 new pathogens recorded in humans in the past three decades, fully 75% have originated in wildlife. While many communities worldwide live in relative harmony with the natural world, the global impetus to protect, rather than encroach into nature's biodiverse areas for extraction and other reasons is clear.

### **Teacher Information on the IPBES report:**

**Highlights:** <https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report/>

**Full text:** <https://ipbes.net/global-assessment>

#### **Videos:**

- IPBES Assessment of Land Degradation and Restoration (2018): [www.youtube.com/watch?v=KCt7aai17Nk](http://www.youtube.com/watch?v=KCt7aai17Nk)
- IPBES Regional Assessments of Biodiversity and Ecosystem Services (2018): [www.youtube.com/watch?v=kR0HeepbWCc](http://www.youtube.com/watch?v=kR0HeepbWCc)
- IPBES Assessment of Pollinators, Pollination and Food Production (2016): [www.youtube.com/watch?v=YwkYbeiwK5A](http://www.youtube.com/watch?v=YwkYbeiwK5A)
- IPBES Assessment of Scenarios and Models of Biodiversity (2016): [www.youtube.com/watch?v=wZfcDmtGa9I](http://www.youtube.com/watch?v=wZfcDmtGa9I)

## **STEP 1: IDENTIFY TARGET GROUP**

### **SUGGESTED CURRICULUM LINKS:**

- Religious Education
- Science
- Agricultural science
- Geography
- Home Economics
- History

### **SAMPLE LEARNING INTENTIONS:**

- Describe the main factors that negatively influence biodiversity globally
- Identify the impacts of biodiversity loss on human rights globally
- Evaluate the ways in which biodiversity loss can be stopped / reversed
- Identify a range of actions people / groups have taken globally to defend biodiversity
- Distinguish between degrading and non-degrading farming practices
- Identify the various perspectives on habitats as economic resources
- List the key recommendations of the IPBES report
- Evaluate whether Ireland is doing enough to reverse biodiversity collapse
- Explain the different ways in which biodiversity can be increased at an individual, school, community, national and global level.

## STEP 2: CHOOSE A GLOBAL JUSTICE THEME

### LINKS TO GLOBAL GOALS/ POTENTIAL AREAS OF FOCUS:

Loss of biodiversity relates to a number of global goals:

**Global Goal 2: Zero Hunger.** It relates to the indicators of: productivity and incomes of small scale food producers, Sustainable production and resilient agricultural practices and maintaining genetic diversity in food.

**Global Goal 15: Life on land** as it relates to the conservation, restoration and sustainable use of: water ecosystems and their services in particular forests, wetlands, mountains and drylands. This includes combatting desertification, restoring degraded land, soil and natural habitats. This includes integrating ecosystem and biodiversity values into national and local planning, development processes and poverty reduction strategies and accounts.

**Goal 1: No Poverty** - Increasing poverty and vulnerability particularly to natural disasters with flooding, mudslides, and harming peoples health and livelihoods.

**Goal 3: Good Health and Wellbeing** – Loss of biodiversity including deforestation results in flooding and blockages which can contribute to waterborne diseases such as malaria, dysentery and cholera, Much of modern medicine is developed from learning about natural process and biodiversity. Natural medicines are also highly valued in many cultures.

**Goal 12: Responsible Consumption and Production** – The harvesting of natural resources for human consumption is the major drive in ‘development’. This includes mining, deforestation (to turn into agricultural land or for the forest resources). The transformation of plastic production and consumption patterns will be necessary to create change.

**Goal 13: Climate Change** – Climate change is contributing to biodiversity globally. This impacts the poorest, most vulnerable people (who rely on local biodiversity) worst.

**Goal 14: Life Below Water** – Manage, protect and restore marine and coastal ecosystems. Support sustainable fishing practices and restore fish stocks in the shortest time feasible. By this year (2020), the global goals aim to prohibit certain forms of fisheries subsidies which contribute to overcapacity, overfishing, illegal, unreported and unregulated fishing.

## STEP 3: EXPLORE THE THEME

### TEACHING AND LEARNING MATERIALS:

*For more detailed resources on any of the specific causes of biodiversity loss (5. as outlined in the introduction) please see the relevant thematic resource sheets on our website*

## Resources:

### **Make Space for Nature: Why Biodiversity is Key to Achieving the Global Goals**

**Overview:** Introductory lesson plan looking at how the planet's biodiversity impacts the achievement of the Global Goals.

**Note:** Emphasise the focus of biodiversity being essential for human survival and ask supplementary questions about how the loss of biodiversity may impact human rights

**Link:** <https://c15a759148e3465cc1e0-b5c37212e1d32204235caf5298e9144a.ssl.cf5.rackcdn.com/2019/07/Make-Space-For-Nature-Lesson-Plan.pdf>

### **Guardians of the Rainforest (2020) – Short film and resources**

**Overview:** This film is fantastic for use with all ages, at home or in the classroom.

Watch to find out about the cocoa farmers who live by the great Gola Rainforest in Sierra Leone, West Africa. The story is told by 14-year-old Beshey, whose family have been cocoa farmers for generations. Download the 'Guardians of the Rainforest' Home Learning Challenge for lots of fun learning ideas and activities to try after watching the film.

**Note:** May need to register and log-in to access. But registration and downloading is free.

**Link:** <https://schools.fairtrade.org.uk/resource/guardians-of-the-rainforest/>

### **SDG 15. Life on Land #SDGChallenge Info Pack**

**Overview:** This info pack explores the topic of protecting, restoring and promoting sustainable use of terrestrial ecosystems, sustainably managed forests, combating desertification, and halting and reversing land degradation and biodiversity loss. Based on a 4 step approach– explore the Goal; Understand; Act; Share with key facts, statistics and videos.

**Link:**

## Short Video Clips:

### **Human Impacts on Biodiversity**

**Outline:** Animation simply outlining the key human impacts on biodiversity

**Link:** <https://www.youtube.com/watch?v=wXJiHr8jWBs>

### **Why Does Biodiversity Matter to Me?**

**Outline:** Outlines the human and economic reasons for why biodiversity is important

**Link:** [https://www.youtube.com/watch?v=O7PPd\\_0a9Mw](https://www.youtube.com/watch?v=O7PPd_0a9Mw)

### **What is Biodiversity**

**Overview:** Short basic video describing what biodiversity is and how it is important for human survival. Narrated by David Attenborough.

**Link:** <https://www.ourplanet.com/en/video/what-is-biodiversity/>

### **IPBES - 5 Drivers of Biodiversity Loss**

**Overview:** UN report very short animations on each of the main driving factors for loss of biodiversity

Five Drivers: <https://www.youtube.com/watch?v=uXIIPe7DAxw>

Causes of land degradation:

<https://www.youtube.com/watch?v=JAzycGXB0H4>

Pollution: <https://www.youtube.com/watch?v=wELj99eBZtM>

Lots of other videos available at:

<https://www.youtube.com/user/ipbeschanel/videos>

### Short Film:

#### **Guardians of the Rainforest (2020) – Short film (13mins) and resources**

**Overview:** The story is told by 14-year-old Beshey, whose family have been cocoa farmers for generations in the Gola Rainforest in Sierra Leone, West Africa. Explore this video with a focus on sustainable agriculture – farming with nature, supporting local biodiversity. Download the ‘Guardians of the Rainforest’ Home Learning Challenge for lots of fun learning ideas and activities to try after watching the film.

**Link:** <https://schools.fairtrade.org.uk/resource/guardians-of-the-rainforest/>

## **CAMPAIGNS/ PROGRAMMES/ ORGANISATIONS:**

### **Greenpeace**

**Who:** Greenpeace is a non-governmental environmental organization **who** uses non-violent creative action to pave the way towards a greener, more peaceful world, and to confront the systems that threaten our environment.

**Offers:** Outlines key issues facing the natural world and campaigns and actions you can get involved in such as. More details of some campaigns in ‘Meaningful Action’

**Link:** <https://www.greenpeace.org.uk/>

### **La Via Campesina**

**Who:** An international movement bringing together millions of peasants, small and medium size farmers and fishing folks from around the world. Together they fight for land, water, territories, food sovereignty and climate justice (among many other things).

**Offers:** Lots of articles on food related issues such as food sovereignty, climate and environmental justice, seeds etc

**Link:** <https://viacampesina.org/en/what-are-we-fighting-for/>

## **STEP 4: COLLABORATION AND RAISING AWARENESS**

- **Celebrate National Biodiversity Week (May) or EU green week (October)–.** Showcase learning on Biodiversity as a Global Justice issue. Highlight all the things we can do in our daily lives to reduce biodiversity loss (actions which lead to climate change, pollution, land degradation etc). Identify actions people can take to increase the biodiversity of their area. You can do structured peer-to-peer education sessions, assemblies, interactive stalls or games.

- **Showcase learning on degrading V non-degrading farming practices** (e.g. permaculture, organic)
- **Showcase regenerative farming practices in your area** - Research the small farmers in your area who are choosing to farm in a regenerative organic fashion that supports increased biodiversity. Do a school trip to their farm and interview them. Share your findings in the school (video, display, assembly etc) or Invite them into the school to talk to students.
- **Create a play** - based on the story of a Cork woman who cut down Coillte trees close to her home.
  - Research a variety of news sources which reported on the issue.
  - Students identify the key Actors within the story and their various perspectives in the story.
  - Do a critical media analysis of the sources, identifying perhaps which sources may have been more sympathetic to which actor in how they reported e.g. <https://www.theguardian.com/world/2020/feb/29/welsh-woman-sioned-jones-found-guilty-biodiversity-sitka-spruce> and <https://www.thejournal.ie/sioned-jones-court-coillte-5024154-Feb2020/>
  - Develop a script based on the story showcasing the viewpoint of each actor.
  - Showcase it within the school - create a moving debate with the audience based on the themes of the play. If it is a small audience it can be done by the students, if it is larger perhaps ask teachers to facilitate it back in their smaller classes. Develop statements that are broad enough to elicit debate e.g.:
    - “Sioned Jones was doing her citizens duty to protect the environment and biodiversity”.
    - “There is never any excuse to break the law”.

## STEP 5: TAKING MEANINGFUL ACTION

### Ideas for School Community Actions:

- **Audit biodiversity in the school and take action based on results**– Review the biodiversity within your school, identify actions you can do to stop biodiversity loss and indeed increase it within the school. This may include creating a policy to stop the use of petroleum based pesticides and increase wild areas. Make sure you link in with all stakeholders in the school (including management and caretakers). Ensure this is combined with an education programme in the school so the school community are aware of the global justice issues surrounding biodiversity and as many as possible are involved in creating and maintaining the plan.

### Ideas for Local and National Community Actions:

- **Work with the local community to become a ‘pollinator-friendly’ and actively increase biodiversity in your local community** – Do an information session in your school inviting major stakeholders in the community including the tidy towns, business and local community groups. Showcase the global justice issues around biodiversity loss. Give examples of how indigenous groups globally have been

fighting biodiversity loss and inspire the community to do their part locally to join this movement to protect our biodiversity. Invite them to join to implement the All-Ireland Pollinator Plan. Brainstorm ideas with them for how we might increase biodiversity locally. Decide the priorities with the most impact. Organise into working groups to work on the top ideas or create a timeline where you can do one task at a time.

**All-Ireland Pollinator Plan:** <https://www.biodiversityireland.ie/wordpress/wp-content/uploads/All-Ireland%20Pollinator%20Plan%202015-2020.pdf>

**Sign your community up here:** <https://pollinators.biodiversityireland.ie>

**Here are some ideas:** <https://www.biodiversityireland.ie/communities-helping-our-endangered-pollinators/>

- **Create, and present a set of recommendations or asks for the government on biodiversity –**

Considering the [recommendations by the IPBES report](#), in smaller groups research different reports and develop a set of recommendations to the Irish Government in our response to the biodiversity collapse.

- o Students research Irish and EU policy such as:
  - [National Biodiversity Action Plan \(2017-21\)](#);
  - [The EU – from farm to fork: our food, our health our plan](#),
- o Students may also research organisations who offer a critique to policies:
  - <https://www.socialjustice.ie/content/policy-issues/protecting-nature-and-biodiversity-must-be-heart-all-government-climate-plan>
- Each group bring forward their top recommendations and using interactive methodologies decide as a class which ones are the priority for you.
- Create a petition within your school asking students to sign up to support the recommendations.
  - o Present these to your local government representative, ask them questions and discuss. Ask them how they will forward these proposals and keep following up to get a response.

**Note,** [Dr. Brian Nelson](#), is the National Focal Point for the IPBES in Ireland

### Ideas for European And Global Community Actions:

- **Join a global campaign to end extractive practices that damage biodiversity globally**

Research campaigns that are taking action to encourage companies to make changes in their supply chain to: stop biodiversity loss; increase preservation efforts; and protect indigenous peoples and local communities from attack as they protect local biodiversity. Plan how you can bring these campaigns into your local area.

E.g. Greenpeace who have a number of campaigns:

- [“Tesco: your industrial meat is destroying our forests”](#)
- [“For Brazil’s Indigenous Peoples, protecting nature is a matter of life and death”](#)
- [Palm oil and its impacts](#)