

UN Sustainability Goals: Climate Action, Life Below Water, Life on Land

Introduction

As mentioned last week, for the next few weeks, we will be focusing on and discussing three different UN sustainability goals, each under a broad theme. For this week, the theme is Climate Change and the sustainability goals that will be discussed are "Climate Action, Life below Water, and Life on Land".

The Climate Action goal seeks to improve the environmental conditions on Earth prior to 2023. Specifically, the goal focuses on the reduction of CO2 emissions and improving the funding for climate change efforts. Thereby, combating the rise in global temperatures, sea levels, and natural disasters.

The Life below Water goal aims to improve the oceanic conditions on Earth prior to 2023. Specifically, the goal focuses on the reduction of ocean acidification, plastic pollution, and increasing the support of small-scale fisheries. The plan is to use resources that the ocean provides more sustainably and be mindful of the different employments that rely on the ocean.

The Life on Land goal plans to improve the conditions on continental Earth prior to 2023. Specifically, the goal focuses on the increase of biodiversity funding, proper usage of genetic resources, and the reduction of deforestation and agricultural expansion. Therefore, the idea is to promote terrestrial restoration efforts, protect millions of endangered species, and improve the sustainable use of different ecosystems and environments on land.

Northeastern Connections

Faculty Connection

Sara Wylie ([Related News](#))

Associate professor Wylie works in the sociology and health sciences department at Northeastern University. For years she's been researching environmental justice and how climate change and environmental policies affect different groups of people. Now she has the opportunity to work at her year-long fellowship in the



U.S. Department of Energy's new Office of Energy Justice Policy and Analysis. At this fellowship she will be focusing on bridging the gap in the system such that all communities are being counted in the new policies set to improve the world.

Student Connection

At Northeastern University, the Model United Nations team seeks to address many topics surrounding the UN, including the sustainability goals. In a debate-style format, students discuss the feasibility and opportunities that will pave the way for goals set forth by the UN to be achieved in a timely and realistic manner. At the Northeastern University School of Public Policy and Urban Affairs, the topics of climate and sustainability are tackled from a prospective standpoint. The school focuses on preparing students to lead and take charge of sustainability efforts and climate change resilience. The website also provides information and resources for the general public regarding an overview of the impacts of climate change and the efforts to combat it. For example, the topics include "Climate Change Fundamentals, Climate Resilience, and Understanding and Coping with Climate Change".



Do Now

[Understand Goal 13: Climate Action \(Secondary\)](#)

Watch the video above and think about the questions listed below afterward.

Discussion Questions:

- Based on the video, what are some natural disasters that impact our world? Can you think of any others?
- Why is Climate Action necessary to improve our world?

Activity

Due to the increase of fossil fuel burning, we've been increasing the amount of greenhouse gas in our Earth's atmosphere. As a result, temperatures have been steadily rising causing my glaciers to melt. For this activity, we'll be learning about how climate change, specifically global



warming impacts our oceans and lands.

Materials Needed:

You can use any materials you want but here are some suggestions:

- Medium sized food storage container (recommended 4in by 7in)
- Clay or playdough
- Ice cubes
- Water
- Marker
- Blue food coloring

Steps:

- Create a landmass out of the clay or playdough that is large enough to sit at one end of the container. This landmass should fill about one quarter of the container wide and be about one and half inch tall.
- On top of the landmass, place as many ice cubes as possible to represent the glaciers.
- Carefully pour water into the empty side of the container, making sure that it does not go past the top of the clay. If desired, add a drop of blue food coloring to the water. This will represent the ocean.
- Mark the container with the marker where the water level currently sits. Repeat this step every 30 minutes until the ice completely melts.

Discussion Questions:

- What happened to the ocean and land when the ice melted? How does this relate to what is currently going on in our world?
- How are coastal communities affected by glaciers melting? How are different ecosystems being affected by the glaciers melting?
- What are some actions we can take to slow down the rate of the ice melting?

Share Your Results

We'd love to know how the activity and/or the "do now" turned out! What worked and what didn't work? Please share with us something you learned and/or send us pictures! Email us at stem@northeastern.edu.

Related links/Extensions

- [UN Goals](#)
- [Northeastern International Relations Council](#)

- [Northeastern Climate & Sustainability](#)
- [PBS - What Makes the Sea Rise?](#)
- [NASA - Climate Time Machine](#)
- [NASA - Climate Kids](#)