



# **ODUMUNC 39**

## Global Summit on the Sustainable Development Goals

The Protection, Restoration, and Promotion of Sustainable use of Terrestrial  
Ecosystems

By: Meredith Arndt



## Issue Brief for the Global Summit on the Sustainable Development Goals



### *The Protection, Restoration, and Promotion of Sustainable use of Terrestrial Ecosystems*

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#### **I. Introduction:**

The term terrestrial ecosystem is defined as “an ecosystem found only on landforms. Six primary terrestrial ecosystems exist: tundra, taiga, temperate deciduous forest, tropical rain forest, grassland, and desert. A community of organisms and their environment that occurs on the land masses of continents and islands.” The actions that we undertake automatically affect the places in which we live. The Sustainable Development Goals (SDGs) are essential to the sustaining of environments and biodiversity that we depend on for improving our lives. However the protection, restoration, and promotion of the sustainable use of terrestrial ecosystems provides many challenges to their implementation. “Goal 15” of the SDGs, this goal’s challenges to implementation include cultural practices that are detrimental to the environment; include economic ramifications in state funding and prioritization; and include the severity to which states believe that a sustainable environment effects international security.

This issue is incredibly important because it affects cultural preferences, job markets, food security, and the like. Without protecting, restoring, and sustaining terrestrial ecosystems, we risk the wider wellbeing of our fast-growing population. The UN’s job on this topic is to provide states with advice on protective measures to take with regards

to natural resources and their preservation, along with projects that revitalize their state’s ability to participate in the international economy for years to come.

#### **II. History of Topic**

The United States has been a key player in environmental conservation since the 20<sup>th</sup> century. Environmental sustainability took off in the 1870s, with Theodore Roosevelt’s creation of the National Parks System. After the stock market crash of 1929, Theodore’s cousin, now President Franklin Roosevelt in the 1930s, improved upon this idea of conservation. A part of his initiative to create jobs for the American people, Roosevelt created the United States Conservation Corps in order to preserve the state’s beautiful, natural landmarks.<sup>1</sup> There was a stagnation in environmental improvements through World War II, but interest quickly skyrocketed by 1960s. By 1960, the world carbon monoxide level in the air rose to 300 parts per million, making it essential for international intervention, and the Amazon rainforest was being quickly destroyed.<sup>2</sup> By 1970, one of the pillars of

<sup>1</sup> “The National Parks: Historical Figures,” *Public Broadcasting Station*, last modified 2009, <http://www.pbs.org/nationalparks/people/historica/3/>.

<sup>2</sup> “American Experience Timeline: The Modern Environmental Movement,” *Public Broadcasting Station*, last modified 2013, <http://www.pbs.org/wgbh/americanexperience/features/timeline/earthdays/>.



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Nixon's platform included environmental reform, including the creation of Earth Day in 1970 after a proposal at UNESCO by activist John McConnell for a day to honor preserving the earth.<sup>3</sup> US Senator Edmund Sunkie, the leader in Congress for Earth Day's creation, led the inauguration of this Earth Day into effect.<sup>4</sup>

Although the United States is not the primary focus of the United Nations, the global environmental movement has largely been attributed to US technological research, technological innovation, and policy-making. Since the US's push for environmental consciousness, the idea of preserving terrestrial ecosystems and practicing environmental sustainability has been a main topic at the global stage through the rest of the 20<sup>th</sup> and into the 21<sup>st</sup> century. Since then, regional bodies like the African Union, the European Union, ASEAN, and OPEC have expressed some kind of need for sustainable practices when it comes to using the land for our consumption. However, there is a long way to go before deforestation and the uneven depletion of natural resources is resolved.

### III. Current Situation(s):

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<sup>3</sup> "American Experience Timeline: The Modern Environmental Movement," *Public Broadcasting Station*, last modified 2013, <http://www.pbs.org/wgbh/americanexperience/features/timeline/earthdays/>.

<sup>4</sup> Ibid.

A discussion on the environment has become a source of contention for every actor involved: NGOs, states, and international bodies alike. There are



multiple factors that go into the topic of terrestrial ecosystems, including the sectors of biodiversity of said ecosystems, and deforestation.<sup>5</sup>

In each of these sectors, there are large problems affecting the state of sustainability and environmental health. Although the goal also touches on desertification and land degradation, the most pressing issues the body will be facing this weekend will be in these two areas. In order to understand their states of environmental health, we must look at each individually.

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<sup>5</sup> "Sustainable Development Knowledge Platform," *Division for Sustainable Development of the United Nations Department of Economic and Social Affairs*, last modified 2015, <https://sustainabledevelopment.un.org/sdg15>.



## Issue Brief for the Global Summit on the Sustainable Development Goals



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#### *Biodiversity and Ecosystems*

Biodiversity focuses on the healthy variety of flora and fauna within an ecosystem that allows it to flourish. Since the Rio 20+ Conference in Brazil, lasting attempts have been made to preserve biodiversity in the events of illegal activity, the emergence of invasive species, and in natural disasters. However, there is still work to be done concerning these areas threatening biodiversity and ecosystem health.

Illegal poaching threatens every continent, but more so on continents with developing states. This is because there are rings of impoverished people who have made a business of killing large, popular animals where they can use their furs and their defining features (like tusks) to sell as luxury items in Europe and the United States. Poaching has decreased by 55% since the 1990s with the help of solutions like stricter governmental legislation and moving endangered animals into captivity. However, poachers are finding new ways to continue their malpractice. In October 2015, 22 elephants were killed at a zoological park from poachers' cyanide. After the carcasses were found in the morning by workers, they also noticed 3 tusks were gone. This is just one of many examples of how poaching is still a large problem today.<sup>6</sup>

<sup>6</sup> The Associated Press, "Zimbabwe: Poachers' Cyanide Kills 22 Elephants in Elephant Park," *The International New York Times*, 26 Oct 2015,

Invasive species also cause large problems for healthy ecosystems. The emergence of invasive species means that other plants may not be able to grow. Sometimes, animals in the ecosystem can be allergic to invasive species, causing them to die faster, creating gaping holes in the food webs of a specific habitat. According to the Global Invasive Species Database, Malaysia has suffered from 145 invasive species in their lush, sub-tropical ecosystems. The woodland bittercress is an herb that landed on the continent during international trade in the 1700s. This herb blooms quickly, and its strong root mats make it harder for native species to bloom. Their seeds remain viable for seven years, thus requiring intense monitoring and management for eradication.<sup>7</sup>

Ecosystems can be negatively affected by natural disasters as they are unable adequately prepare for or react to them. When the tsunami in Japan struck in 2011, it wasn't just people whose lives were destroyed. The Impact of the Great East earthquake on the natural environment in the Tohoko coastal regions devastated the local water

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Accessed 7 Nov 2015,  
[http://www.nytimes.com/2015/10/27/world/africa/zimbabwe-poachers-cyanide-kills-22-elephants-in-park.html?\\_r=0](http://www.nytimes.com/2015/10/27/world/africa/zimbabwe-poachers-cyanide-kills-22-elephants-in-park.html?_r=0).

<sup>7</sup> "Global Invasive Species Database: Malaysia," *Invasive Species Specialist Group*, last modified 2015,  
<http://issg.org/database/species/search.asp?st=sss&sn=&rn=Malaysia&ri=19467&hci=-1&ei=-1&fr=1&sts=&lang=EN>.





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habitats, killing about 50% of the underwater kelp—a staple in the Japanese food markets.<sup>8</sup> Natural disasters can be even more detrimental to ecosystems for developing states. Haiti's earthquake in 2010 destroyed the already fragile biodiversity within their ecosystems. Specifically, the forests of the Massif de la Hotte region are home to the “most critically endangered species” on the planet.<sup>9</sup>

*Deforestation*

Like land degradation and drought, deforestation is largely due to corporation's desire for raw materials, as well as industrialization of large cities. Multinational corporations are to blame for the destruction of the Amazonian Rainforest in Latin America. This rainforest is home to the most diverse ecosystem in the world, with the World Bank estimating that 10% of the world's species reside in the Amazon (most of them only found in this spot in the world); and Greenpeace (NGO) says it is

around 50%.<sup>10</sup> Two reasons for Amazonian deforestation exist: industrialization and urbanization. Regarding industrialization, deforestation in the Amazon can be attributed to extracting raw materials from trees, plants and species to make products ranging anywhere from mahogany wood to medications to soaps. Regarding urbanization, Brazil post-World War II was looking to urbanize “uninhabited” land to deal with their booming population. The UN even released a report stating that if used for farmland, the area of the Amazon rainforest could feed 36 million people. These things combined lead to an estimate of 137 species in the Amazon becoming endangered daily. Seeing this as a threat to biodiversity, the World Bank placed restrictions on the destruction of the Amazon Rainforest for 20+ years in order to bring the biome back to health.<sup>11</sup> However, today, the Amazon Rainforest still faces serious threats from multinational corporations as other states across the globe develop and seek raw materials to transform into goods in their growing markets.

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<sup>8</sup> Nature Conservation Bureau Ministry of the Environment Biodiversity Center of Japan, *Impact of the Great East Japan Earthquake on the Natural Environment of the Tohoku Coastal Regions*, Ed. Asia Air Survey Co. Ltd (Yamanashi: November 2013), 6.

<sup>9</sup> Catriona Davies, “Haiti's Fragile Ecosystems Facing Disaster,” *Cable News Network*, 10 September 2010, accessed 7 Nov 2015, <http://www.cnn.com/2010/WORLD/americas/09/10/haiti.biodiversity/>.

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<sup>10</sup> Devadas Vittal, “The Amazon Rain Forest Is in Danger of Being Destroyed,” *Rain Forests*, Ed. HaiSong Harvey. San Diego: Greenhaven Press, 2002, At Issue. Rpt. from “What Is the Amazon Rainforest?”

<http://www.homepages.go.com/homepages/d/v/i/d/vittal/amazon/intro.html>.

<sup>11</sup> Ibid.



## Issue Brief for the Global Summit on the Sustainable Development Goals



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Deforestation is also a product of natural disasters and outdated and harmful agricultural techniques in developing states. A state that encompasses both of these problems is Haiti, a previously mentioned country in this background guide. As a result of the earthquake, the already unstable and food-insecure state needed a quick way to harvest more food. Although the earthquake killed about half of their forests, it was the use of slash and burn agriculture that escalated the state of deforestation and loss of biodiversity.<sup>12</sup> The NGO Ecologic Development Fund defines slash and burn agriculture as “a widely used method of growing food in which wild or forested land is clear cut and any remaining vegetation burned.”<sup>13</sup> When the burned vegetation decomposes, it creates fertile land for a few years. However, the nutrients in the soil become used up quickly, forcing the farmer to move to a different land plot and use this method again.<sup>14</sup> As of late, just 3% of Haiti’s original forests remain.<sup>15</sup>

<sup>12</sup> Catriona Davies, “Haiti’s Fragile Ecosystems Facing Disaster,” *Cable News Network*, 10 September 2010, accessed 7 Nov 2015, <http://www.cnn.com/2010/WORLD/americas/09/10/haiti.biodiversity/>.

<sup>13</sup> “Slash and Burn Agriculture,” *EcoLogic Development Fund*, last modified 2014, <http://www.ecologic.org/actions-issues/challenges/slash-burn-agriculture/>.

<sup>14</sup> Ibid.

<sup>15</sup> Catriona Davies, “Haiti’s Fragile Ecosystems Facing Disaster,” *Cable News Network*, 10 September 2010, accessed 7 Nov 2015,

The Sustainable Development Goal 15 (G15) is intended to tackle the



challenges associated with problems within these subareas of the sustainable use of terrestrial ecosystems. Delegates will need to create solutions that enhance G15’s proposed targets, while keeping in mind previous UN action and challenges facing the sustainable use of terrestrial ecosystems—all of which will be discussed later in this issue brief.

#### **IV. United Nations actions on subject, its role, and landmark resolutions:**

##### *Goal 15 of the Sustainable Development Goals:*

Here is a summary of the main points of Goal 15:

1. Promote the sustainable management of all types of forests and improve the status of forests that have become victims of destruction and depletion,

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<http://www.cnn.com/2010/WORLD/americas/09/10/haiti.biodiversity/>.



## Issue Brief for the Global Summit on the Sustainable Development Goals



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2. Take significant action against the loss of biodiversity within all ecosystems across the globe,
3. Introduce measures to halt the extent to which invasive species destroy habitats across various ecosystems,
4. Enhance global networks to prevent poaching and other illegal activities concerning hunting endangered species,
5. Integrating values of biodiversity and healthy ecosystems into local, regional, and national governing bodies across the globe, and
6. Promoting the proper use of genetic resources and giving access to those who could benefit from their use.<sup>16</sup>

Delegates should note that this list only highlights main points of the G15's SDGs, and delegates should look at the full list of proposed targets in order to understand their topic to the fullest.

#### *Other UN Actions*

The United Nations Environmental Program (UNEP) centers on the preservation of our global environment, reducing adverse effects of climate change, and fostering new

technology for a sustainable future. Regarding ecosystem management, UNEP has made attempts to not only focus on the scientific process of conserving ecosystems and preserving their biodiversity, but to also integrate social development into the process. UNEP's UN Policy Series on Ecosystem Management released "The Social Dimension of Ecosystem-Based Adaptation" in 2013, highlighting specific projects that improved the lives of at-risk demographics affected heavily by the destruction of ecosystems, like indigenous peoples, women, and children.<sup>17</sup>

The Economic and Social Council (ECOSOC) recently added the UN Forum on Forests to their numerous standing committees. The paramount resolution from this body, entitled the "International Agreement on Forests," outlines the various preservation efforts necessary to conserve forests around the world and guidelines that states should follow when facilitating projects. It also specifies how governments should regulate private, national, and multinational corporations when it comes to obtaining raw materials and disposal of unneeded product. In June 2015, they also extended this international

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<sup>16</sup> "Goal 15. Protect, Restore and Promote Sustainable Use of Terrestrial Ecosystems, Sustainably Manage Forests, Combat Desertification, and Halt and Reverse Land Degradation and Halt Biodiversity Loss," United Nations Association of Greater Philadelphia, 2014, Accessed 7 Nov 2015, <http://una-gp.org/clancvt/files/goals/goal15.pdf>.

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<sup>17</sup> United Nations Environmental Program, "Ecosystem Management: The Social Dimension of Ecosystem-Based Adaptation," *United Nations Policy Series* (2015): 18.



## Issue Brief for the Global Summit on the Sustainable Development Goals



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agreement to discuss funding for specific projects.<sup>18</sup>

The task of the UN Educational, Scientific, and Cultural Organization (UNESCO) is to preserve the world's cultural heritage sites, foster innovation in scientific knowledge for sustainable societies and ecosystems, and provide a network of understanding for these subjects. In regards to the G15, UNESCO recently inaugurated the exhibition "Mountains: Early Warning Systems for Climate Change." This exhibition at the next UNESCO General Conference seeks to raise awareness about the effect of climate change on mountains, which severely impact water and food security for the communities that rely on them. Millions of people rely on the Andes Mountains and Mt. Kilimanjaro for sustenance, and without bringing awareness to climate changes' effects on these terrains, there can be severe impacts on biodiversity and on depletion of resources for humans.<sup>19</sup>

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<sup>18</sup> E/2015/42, "United Nations Forum on Forests," 19 April 2013 and 4 to 15 May 2015, Accessed 7 Nov 2015, [http://www.un.org/ga/search/view\\_doc.asp?symbol=E/2015/42](http://www.un.org/ga/search/view_doc.asp?symbol=E/2015/42).

<sup>19</sup> Natural Sciences Sector, "Mountains: Early Warning Systems for Climate Change," *United Nations Educational, Scientific, and Cultural Organization Media Services*, 11 Apr 2015, Accessed 7 Nov 2015, [http://www.unesco.org/new/en/media-services/single-view/news/mountains\\_early\\_warning\\_systems\\_for\\_climate\\_change/#.VmdLgbgrLIV](http://www.unesco.org/new/en/media-services/single-view/news/mountains_early_warning_systems_for_climate_change/#.VmdLgbgrLIV).

The United Nations is limited in their enforcement of resolutions due to the nature of the organization itself, as it cannot infringe on the national sovereignty of any of its member states. It is also prohibited by funding situations and allocation by the UN itself, meaning it must look outside the UN for funding sources. However, all resolutions can provide basic projects and guidelines that can be voluntarily implemented, and can look to partnerships with NGOs, international monetary organizations, and private sectors to carry out solutions.

#### **V. Issues facing the body & Key Arguments:**

Some states don't see this as an immediate threat because they have other concerns, such as political corruption and internal instability. However, many of the problems associated with basic access to necessities for sustaining life—such as food, water, and shelter—are largely due to a lack of environmental consciousness by the state. Another thing to consider is that many times, capitalist venture is deemed more important than the efforts of spending money in environmental sustainability—which some economic theorists say is detrimental to an economy as a whole (think "Tragedy of the Commons" by Garrett Hardin).<sup>20</sup> Countries like the Republic of China have focused more on building their

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<sup>20</sup> Garrett Hardin, "Tragedy of the Commons," *Science*, by Moses King, Vol. 162 (13 December 1968), 1243-1248.





## Issue Brief for the Global Summit on the Sustainable Development Goals



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industries to become economic powerhouses, but their environmental preservation is at an all-time low. They have used “satellite cities” like Hangzhou to show their efforts in conservation, seen through making the famous West Lake a UNESCO World Heritage Site in 2011.<sup>21</sup> However, there still is much that can be done to prevent biodiversity loss, deforestation, and conservation of arable land.

On the topic of arable land, the body will also need to decide how drastic the improvements on the G15 SDGs will need to be. Many scientists and theorists have spoken on the topic of climate change and the destruction of terrestrial ecosystems as an immediate security threat more dangerous than even nuclear terrorism. With the destruction of forests and terrestrial ecosystems comes the destruction of food sources, which could lead to widespread food insecurity across the globe. Malthusianism is based off of the theories of Thomas Malthus, who predicted that while population growth would increase geometrically, food growth would increase arithmetically.<sup>22</sup> In other words, the world population will grow far faster than the world population

will be able to produce food. Neo-Malthusians like Thomas Homer-Dixon believe that the destruction of terrestrial ecosystems and the depletion of resources will eventually result in larger conflicts, thus causing both resource insecurity and national, potentially international, security threats.<sup>23</sup> Delegates must understand their state’s position on the importance of environmental sustainability, the severity to which they believe it will foster conflict, and think of ways to mitigate this conflict.

With these things in mind, delegates will need to enhance the detail of the G15 proposed targets, or leave them less specific to suit their needs in terms of their state’s passion on the topic and their motives for environmental support or lack thereof. This also influences funding for the projects that the body will outline in their resolutions—depending on a state’s stance, the ability to obtain funding for specific projects on preservation will be affected. Delegates will need to think about their sources of revenue in order successfully implement the solutions they plan to discuss.

#### **VI. Country Positions:**

**The African Union:** The AU is very supportive, but also dependent on

<sup>21</sup> “West Lake Cultural Landscape of Hangzhou,” *United Nations Educational, Scientific, and Cultural Organization*, last modified 2015, <http://whc.unesco.org/en/list/1334>.

<sup>22</sup> Meredith Marsh, *Barrons AP Human Geography 2008 Edition*, ed. Peter S. Alagona (2008). Barron's Educational Series. ISBN 978-0-7641-3817-1.

<sup>23</sup> Thomas Homer-Dixon, “Environmental Change as a Cause of Acute Conflict,” *International Security*, Vol. 16 (Fall 1991): 99-104.



## Issue Brief for the Global Summit on the Sustainable Development Goals



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financial support. States within the African Union are also very suspicious of anything that limits their economic development, so they stress ‘sustainable’ in an economic trade-off sense.

**China:** The Republic of China accepts the SDG process and goals, and it is willing to spend some considerable but not large amount of money on the execution of the goals themselves. However, China is hoping for targets without any mandate for specifics that would limit its economic development. China is looking to propose less specific goals in regards to the SDG implementation to show that they are unwilling to contribute a lot of money to this UN cause.

**The European Union:** The EU is one of the organizations actively pushing for the implementation of the SDGs in every state across the European continent, and across the globe. The EU is also the only bloc that expresses the desire to donate significant funding to the process. However, to date, there are significant strains within the EU that will prevent the extent to which this funding to maintain the SDGs is given. The current financial crisis across Southern Europe (including in Greece and in Italy) has caused leaders to speak against funding, but Northern European states (who are also leading the movement on sustainable environmental innovation) are pushing for substantial funding and strong measures.

**Latin America:** Latin American states are incredibly supportive of the SDG initiative, as Brazil hosted the Rio 20+ Summit that became the outline for Goal 15. However, this country bloc is polarized in their ability to provide sufficient funding to execute the specificities of the SDGs. They are hoping to create more relaxed, less specific goals, much like China and the Asia bloc.

**NAM (Non-Aligned Movement):** NAM is not so much opposed to the SDGs outlined in this issue brief as they are cautious. NAM is largely focused on economic development, so any other global issue will come second. NAM is closely aligned with China on the issue of environmental sustainability and believes that the SDG goals need to be refined to less specificity to complement the other priorities that states have, like building industry.

**Russian Federation:** The Russian Federation has acted as a skeptic when it comes to the topic of environmental sustainability and the rest of the SDGs. Russia stays cautious about any action on environmental sustainability that would limit the development of its gas and oil industry. Russia sees no economic advantage in the preservation and conservation of their terrestrial ecosystems, thus they are unwilling to spend copious amounts of money on the SDGs.



**Issue Brief for the Global Summit on the  
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**United States:** The USA is torn yet incredibly active on the issues concerning environmental sustainability. However, currently the USA is less willing to offer financial support and is unwilling to support humanitarian projects in countries with whose governments they disagree or have conflicts. They are most

comfortable when environmental restrictions affect others, not themselves. They are more preoccupied with “fairness” in regards to environmental laws—fairness in regards to allowing their multinational corporations lenience while others do not have the same treatment.

**VII. Essential Questions:**

- How have the current proposed targets of the G15 helped the delegate’s state?
- What is the delegate’s country policy on environmental preservation (specifically in regards to terrestrial ecosystems)?
- How can the body improve upon the G15 proposed targets in an economical way? What can they do to create sustainable agricultural practices in developing states?
- How can the body modify the G15 proposed targets to include legislation and preparation for preserving ecosystems after natural disasters?



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