The 17 Sustainable Development Goals — also known as the SDGs or the Global Goals — came into effect on January 1, 2016 following an historic United Nations Summit in September 2015. 193 governments from around the world agreed to implement the Goals within their own countries in order to achieve the 2030 Agenda for Sustainable Development. Over the next fifteen years, with these new Goals that universally apply to all, countries will mobilize efforts to end all forms of poverty, fight inequalities and tackle climate change, while ensuring that no one is left behind.

These new, interconnected goals build on the successes of the Millennium Development Goals, or MDGs, while also identifying new priority areas such as climate change, economic inequality, innovation, sustainable consumption, peace and justice, among others.

Although each country faces specific challenges in pursuit of sustainable development, special attention is given to the most vulnerable countries, in particular, African countries, less developed countries, landlocked countries and small island developing states. There are also serious challenges within many middle-income countries.

For each of the 17 goals, there is a list of specific targets we aim to reach. The targets discussed in this guide have been summarized for ease of reading. For a more detailed list of all the 169 targets, visit [GlobalGoals.org](http://GlobalGoals.org).
SUSTAINABLY MANAGE FORESTS, COMBAT DESERTIFICATION, HALT AND REVERSE LAND DEGRADATION AND HALT BIODIVERSITY LOSS

Healthy ecosystems are essential for supporting a wide array of species. Humans are not removed from this cycle, as we rely on our environment to keep us healthy, fed and supported in our daily lives. Without sustainable development, protecting the diversity of life on our planet and keeping ourselves warm and fed can seem like an impossible task. Protecting our lands means protecting the soil and species that live there. This is particularly important for industries located near natural ecosystems such as mining and agriculture. The right balance between our needs and the needs of our planet is essential to preserving life on land.

TARGETS

- Protect and conserve ecosystems (such as deserts and rainforests) by respecting international agreements and halting biodiversity loss.
- Reduce deforestation, plant more trees to increase reforestation and sustainably manage forests for the future.
- Protect and prevent the extinction of endangered species by controlling hunting and trafficking protected flora and fauna.
- Involve Indigenous communities in the conservation of our ecosystems.

“One individual cannot possibly make a difference, alone. It is individual efforts, collectively, that makes a noticeable difference—all the difference in the world!”

Dr. Jane Goodall
British primatologist and UN Messenger of Peace
Where did it begin?

- When we talk about biodiversity, we are discussing the variety of life in the world in general, as well as a particular habitat or ecosystem. When ecosystems are healthy and supportive, they are considered rich in biodiversity. Tropical forests and marine coastal zones are particularly rich in biodiversity. We need ecosystems to support the well-being of the environment and humanity, therefore biodiversity is essential in helping keep systems balanced. For example, the Catskill watershed near New York City contains a number of diverse species of plants that help provide drinking water for the city. If the biodiversity of this area is impacted, it could harm this supportive ecosystem environment and reduce its ability to provide clean water.

- Damage to biodiversity is sadly on the rise. According to the UN, between 1990 and 2015, forest coverage has diminished from 31.6 per cent to 30.6 per cent of the world’s total land mass.¹ This loss was mainly caused by deforestation for agricultural and infrastructural development. Biodiversity is affected by increases to human consumption, populations and resource extraction.

- Indirect drivers have direct impacts on biodiversity through over-exploitation, habitat change, pollution, invasive species and climate change. New species introduced to an ecosystem can be a threat and competition for resources to indigenous species that may not adapt as well to change, such as Japanese knotweed or the cane toad in Australia.

- To ensure global biodiversity for the future, protected areas have been established and identified as key biodiversity areas. In 2014, 15.2 per cent of the world’s terrestrial and freshwater environments were covered by protected areas.² Protecting our ecosystems is slowly gaining more momentum, with the percentage of key terrestrial areas covered by protected areas increasing from 16.5 per cent in 2000 to 19.3 per cent in 2016.³

- We need biodiversity and the systems it supports (such as disease resistance and water purification for humans) to change the course of climate change and natural disasters. Strong biodiverse systems help limit the negative impacts of climate change by strengthening the health of the ecosystem and its ability to adapt to change.
2 Why does this issue matter?

- **We need to reduce deforestation and desertification**
  Combating environmental degradation and threats to biodiversity is integral to ensuring agriculture is able to positively impact valuable ecosystems for future generations. Currently, 2.6 billion people depend on agriculture as their livelihood, however over half of the land used is moderately to severely affected by soil degradation. When the soil becomes unable to support growth, it becomes desert, a process called desertification. In order to reverse desertification, we need to mitigate drought and stop overuse, poor crop rotation and climate change to see the return of the green.

- **We need to increase biodiversity and end threats to endangered species**
  Biodiversity is mutually beneficial for us and for our planet. All organisms need food to eat, shelter to protect them and resistance to damaging forces like climate change, disease and habitat changes. Humans in particular need biodiversity to sustain resources we use for health, food and infrastructure development. While we are expanding protected areas, the risk of extinction is still threat for many vulnerable species due to ongoing human activity and expansion. Of the 8,300 animal breeds known, 8 per cent are extinct and 22 per cent are at risk of extinction.

- **We need to improve conservation efforts**
  Environmental conservation is the practice of protecting an ecosystem on individual or governmental levels. Conservation can be done through policies, economic incentives, voluntary practices, and public campaigns. Threats to conservation occur when people do not respect policies or conduct illegal activities (such as poaching animals in conservation areas) that put strain on species that are in need of protection. Since 1999, at least 7,000 animal and plant species have been detected in the illegal trade. Enforcement of protective policies and the ratification, or validation and action, of international agreements need to be maintained in order to make a difference.

“**We must protect the forests for our children, grandchildren and children yet to be born. We must protect the forests for those who can’t speak for themselves such as the birds, animals, fish and trees.**”

**Chief Qwatsinas (Edward Moody)**
Nuxalk Nation, British Columbia
3 Who and what are affected?

- **Soil**
  Healthy soil supports healthy and sustainable ecosystems for plants, animals, and humans. Sadly, arable land loss from soil deterioration is estimated to be 30 to 35 times the historical rate in recent years. Soil needs roots to hold it together and help maintain the balance of nutrients. Deforestation, desertification and floods can impact soil structure, drainage, acidity and nutrients levels that contribute to erosion and degradation. Protecting our biodiversity means supporting our ecosystems from the ground up with sustainable practices.

- **Vulnerable populations**
  Almost 75 per cent of the world’s poor are affected directly by land degradation. Poverty cycles, uneven gender responsibilities and unequal access to resources, sanitation and services makes adapting to changes in land quality difficult for vulnerable populations such as women, Indigenous communities, rural communities and the poor. Increases in pollutants, infectious diseases and poor hygiene and nutrition put additional strains on those who are marginalized.

- **Farmers**
  As the main industry impacting biodiversity, deforestation and the quality of our soil, agriculture plays an integral role in ensuring our ecosystems are healthy and sustained. Sustainable agriculture needs to be accelerated and researched to improve the uptake of renewable practices by farmers. Farmers play a critical role in meeting this sustainable development goal by conserving our ecosystems and ensuring future food security. Sharing knowledge, improving access to agricultural tools, protecting harvests and prioritizing research are great ways to improve the resilience and sustainability of farmers impacted by land degradation.

“Education, if it means anything, should not take people away from the land, but instill in them even more respect for it, because educated people are in a position to understand what is being lost. The future of the planet concerns all of us, and all of us should do what we can to protect it. As I told the foresters, and the women, you don’t need a diploma to plant a tree.”

Wangari Maathai
Kenyan environmental activist and Nobel Peace Laureate
4 What needs to be done?

- Improving biodiversity and reversing land degradation requires a **systems approach** to protecting and conserving our ecosystems and species, while allowing agriculture and industry to support drivers of human development.

- Instead of responding to issues on a case-by-case basis, taking an ecosystem approach to resource management and environmental protections considers the interrelationships of ecosystems as a whole into decision making. Working with decision-makers and diverse **stakeholders** like farmers, national parks staff, environmental groups and citizens helps introduce a collaborative approach to conservation.

- International environmental agreements are important to protecting vulnerable ecosystems and species from damaging human impacts at local, national and international levels. Agreements are usually legally binding and have implications if they are not followed. Some of the most well-known agreements include the Kyoto Protocol and the Geneva Protocol.

- **Non-governmental organizations (NGOs)** at local, national and international levels are integral to supporting specific environmental concerns as well as organizing citizen, business and governmental efforts to conserve and protect our environment. Organizations like Greenpeace, World Wildlife Fund, Jane Goodall Insitute of Canada and David Suzuki Foundation are integral to raising awareness and holding stakeholders accountable to social, economic, and political commitments to protect and conserve.

- Changes to our own habits and practices are essential for reducing our environmental impact and ensuring a sustainable future for humanity. Taking on a particular initiative to raise awareness, donating funds or making a positive change in your community’s relations with the environment are great ways to get involved. Global change starts with you.
Improving biodiversity, reversing land degradation and implementing sustainable agricultural practices intersect with a number of other goals. By improving food security, reducing inequalities between urban/rural and gender divides, and improving decent work by investing in sustainable agricultural jobs, everyone benefits and Life on Land targets are met.

From medicine to makeup, we depend on our ecosystems for our health, well-being and economic development. Biodiversity and the quality of our ecosystems are powerful indicators letting us know the sustainability, or unsustainability of our impact on the environment.

Reducing deforestation and soil degradation and increasing resilience to natural disasters are all connected with efforts to put an end to human impacts on climate change. Addressing our high emissions and reliance on non-renewable resources will help us maintain an ecologically sound future.
Consequences of inaction

- Lowering the biodiversity of our planet will cost us valuable resources in our economy. For example, insects and other pollen-carriers alone are estimated to be worth US$200 billion per year to the global food economy. No more bees, no more food or money, honey.

- Three-quarters of the top-ranking prescription drugs contain components that are derived from plant extracts. Decreasing the biodiversity of our ecosystems jeopardizes our own well-being in addition to our planet’s.

- Increased natural disasters caused by disrupted ecosystems from human impact and climate change already costs the world more than US$300 billion per year. Failing to curb deforestation and reestablish healthy forest ecosystems will only increase that financial cost for our governments, while putting vulnerable populations under even more strain.

**REFLECTION AND ACTION QUESTIONS**

1. How do you feel about the issue now that you know more about it?
2. How might this issue have been prevented? What could have been done differently?
3. How has this problem changed over time? Where do you see it going in the future?
4. What questions do you still have?

“**The environment, after all, is where we all meet, where we all have a mutual interest. It is one thing that all of us share. It is not only a mirror of ourselves, but a focusing lens on what we can become.**”

*Lady Bird Johnson*

Former US First Lady