FOOD SYSTEMS & HEALTH



What does this action target?

Pledges in this category target the loss of biodiversity and enhance contributions to improving food and nutrition security, human and environmental health and resilience of food systems.

What is a "Food System"?

"Food System" refers to the full spectrum of inputs, finance and insurance, production, post-harvest storage, processing, transport, marketing and consumption



Why is this imortant?



United National General Assembly, 2019 recognized the need to strengthen the resilience and adaptive capacity of food systems and people's livelihoods in response to climate variability and extremes, to achieve a world without hunger and malnutrition in all its forms by 2030



Only nine of the plant and animal species cultivated or raised for food in the past account for 66% of total crop production.

75% Since the 1900s, some 75 percent of plant genetic

diversity has

been lost.

A critical pathway is to urgently safeguard and conserve the remaining globally important genetic diversity in order to halt & reverse biodiversity loss.

Freshwater, Coastal, and Ocean Ecosystems



Water occupies more than 70% of the Earth's surface and 95% of the biosphere

There is broad recognition that marine ecosystems face unprecedented human-induced threats.

Industries such as fishing and transportation, and the effects of waste disposal, excess nutrients from agricultural runoff, and the introduction of exotic species cause ecosystem degredation.





13%

Only 13% of marine and coastal ecosystems are devoid of intense human impacts



Almost 50% of living coral has been lost since 1870



1/3

a third of all carbon emissions from fossil fuels is absorbed by the ocean

35%

50%

35% of the world's fish stocks were overfished in 2016

Biodiversity plays an important role in underpinning ecosystem functions and services that are essential for the health and sustainability of our water systems.

Information from the Convention on Biological Diversity

CONSERVATION & RESTORATION OF LAND ECOSYSTEMS

What is ecosystem restoration?

ECOSYSTEM RESTORATION IS A MEANS OF CONSERVING AND RESTORING BIODIVERSITY, ECOSYSTEM FUNCTION, SERVICES AND RESILIENCE, GIVEN ADEQUATE TIME AND INVESTMENT



Why is restoration important?

ECOSYSTEMS ARE VALUABLE TO PEOPLE:
THEY PROVIDE LIVELIHOODS AND FOOD FOR
MILLIONS OF PEOPLE GLOBALLY, PLAY ESSENTIAL
ROLES IN WATER AND NUTRIENT CYCLES, PREVENT
EROSION, FOSTER SOIL FORMATION, AND SUPPORT
LARGE PORTIONS OF THE WORLD'S BIODIVERSITY

Where can restoration occur?

DEGRADED AND TRANSFORMED LANDS CAN OFTEN BE RESTORED OR REHABILITATED TOWARDS THEIR ORIGINAL NATURAL STATE

NATURE RESTORATION CAN HAPPEN AT ANY SCALE, BE IT A BACKYARD PLOT, A CITY PARK, A RIVER VALLEY, A NATIONAL FOREST OR A GLOBALLY THREATENED ECOSYSTEM.



What about Conservation?

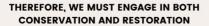
IF WE CONSERVE BEFORE DEGRADATION OCCURS WE CAN MINIMIZE THE DAMAGE AND NEED TO RELY ON RESTORATION.

CONSERVATION INVOLVES TAKING CONCRETE STEPS TO REDUCE THE WASTEFUL USE OF RESOURCES



Why both Conservation & restoration?

HUMANS ARE USING ABOUT 1.6 TIMES THE AMOUNT OF RESOURCES THE PLANET CAN REPLENISH, MEANING CONSERVATION EFFORTS ALONE CANNOT PREVENT LARGE-SCALE ECOSYSTEM COLLAPSE AND BIODIVERSITY LOSS.





CLIMATE CHANGE MITIGATION & ADAPTION

The Convention on Biological Diversity has 3 objectives:

- 1. THE CONSERVATION OF BIODIVERSITY
- 2. THE SUSTAINABLE USE OF ITS COMPONENTS
- 3. THE FAIR AND EQUITABLE SHARING OF BENEFITS FROM GENETIC RESOURCES





EFFORTS TOWARDS THE ACHIEVEMENT OF THESE OBJECTIVES ARE UNDER THREAT FROM CLIMATE CHANGE

BIODIVERSITY HAS AN IMPORTANT ROLE IN CLIMATE CHANGE MITIGATION.

CLIMATE CHANGE AND BIODIVERSITY LOSS ARE INSEPARABLE THREATS TO HUMANKIND AND MUST BE ADDRESSED TOGETHER.

BIODIVERSITY IS STRONGLY IMPACTED BY CLIMATE CHANGE, WHILE THE CONSERVATION OF BIODIVERSITY POSITIVELY AFFECTS CLIMATE CHANGE

THE GOOD MANAGEMENT OF ECOSYSTEMS

(EX: WETLANDS AND FORESTS
S AN EFFECTIVE MITIGATION OPTION

THESE NATURAL SYSTEMS CAPTURE & STORE CARBON

CONSERVATION & SUSTAINABLE USE OF SPECIES



Biodiversity is currently being lost at up to 1,000 times the natural rate.

This category intersects with many Global Biodiversity Framework goals:

Target 5: significantly reduce the rate of loss of all natural habitats.

Target 7: sustainable management of areas under agriculture, aquaculture and forestry

Target 9: invasive alien species are identified and prioritized, and measures are in place to prevent the introduction of invasive species.

Target 12: address efforts towards the extinction of known threatened species

Target 13: protect the genetic diversity of cultivated plants, farmed & domesticated animals and wild animals

Some scientists are now referring to the crisis as the 'Earth's sixth mass extinction'



Efforts to preserve biodiversity must take into account not only the physical environment, but also social and economic systems that are well connected to biodiversity and ecosystem services.

SUSTAINABLE CONSUMPTION & PRODUCTION



Governments, business, and stakeholders need to take the steps necessary to bring resource consumption to sustainable levels



WHY IS THIS IMPORTANT?

Worldwide consumption and production — a driving force of the global economy — rest on the use of the natural environment and resources in a way that continues to have destructive impacts on the planet.

GLOBAL MATERIAL FOOTPRINT
HAS INCREASED

2010: 73.2 BILLION METRIC TONS 2017: 85.9 BILLION METRIC TONS





UNCTAD'S BIOTRADE INITIATIVE AND ITS PARTNERS HAVE BEEN PROMOTING SUSTAINABLE TRADE OF GOODS AND SERVICES DERIVED FROM NATIVE BIODIVERSITY UNDER THE CRITERIA OF

SUSTAINABLE TRADE, INCLUDING BIOTRADE, CAN HELP ORIENT GLOBAL TRADE PATTERNS IN A DIRECTION THAT CONTRIBUTES TO THE ACHIEVEMENT OF BIODIVERSITY GOALS

ENVIRONMENTAL, SOCIAL, AND ECONOMIC SUSTAINABILITY.

BIOTRADE PROVIDES POSITIVE INCENTIVES FOR - AND PROMOTING PRIVATE SECTOR ENGAGEMENT IN - THE CONSERVATION AND SUSTAINABLE USE OF BIODIVERSITY.

MOREOVER, IT COULD FOSTER THE INTEREST OF GLOBAL FINANCE AND BUSINESSES SOURCING BIOLOGICAL RESOURCES IN DEVELOPING AND IMPLEMENTING BIODIVERSITY-FRIENDLY PRACTICES AND IN ALLOCATING RESOURCES TO CONSERVATION AND SUSTAINABLE USE.

BIOSAFETY

The Cartagena Protocol on Biosafety, aims to ensure the safe handling, transport and use of living modified organisms resulting from modern biotechnology that may have negative effects on biological diversity.

Living Modified Organism

Any living organism that possesses a novel combination of genetic material obtained through the use of modern biotechnology.



Technology is always changing, and that includes biotechnology, where new developments are opening up new possibilities to address global challenges

These new applications of different technologies should go hand in hand with biosafety measures that are effective in safeguarding biological diversity.

Modern biotechnology involves modifying the genetic material of an organism with the aim of developing or improving one or more characteristics in the organism.

While this technology has the potential to generate benefits for humankind and contribute to sustainable development, there are concerns that living modified organisms resulting from biotechnology may have negative effects on biodiversity and human health.

diversity and human health.







FOOD SYSTEMS & HEALTH



What does this action target?

Pledges in this category target the loss of biodiversity and enhance contributions to improving food and nutrition security, human and environmental health and resilience of food systems.

"While biodiversity rapidly disappears, the number of undernourished people has increased to 821 million"

-Convention on Biological Diversity, 2021

JOIN THE OTHER PLEDGES COMMITTED TO PROTECTING FOOD SYSTEMS & HEALTH WITH THE ACTION AGENDA!

A great example is the pledge made by the Egyptian Government's Ministry of Agriculture in response to the ever-increasing demand placed on fish stocks due to the increase in population growth



This pledge also intersects with two other categories:

- Conservation and sustainable use of species
- Freshwater,
 Coastal & Ocean
 Systems

CONSERVATION & RESTORATION OF LAND ECOSYSTEMS

ECOSYSTEMS ARE VALUABLE:

THEY PROVIDE LIVELIHOODS AND FOOD FOR MILLIONS OF PEOPLE, AND SUPPORT LARGE PORTIONS OF THE WORLD'S BIODIVERSITY

JOIN THE OTHER PLEDGES COMMITTED TO CONSERVATION WITH THE ACTION AGENDA

A great example is the pledge made by Climate Action SDG Laboratory





This pledge highlights and documents indigenous knowledge associated with biodiversity by the Nganyi Community in Kenya.



The action concludes that the traditional indigenous knowledge is an asset in the conservation of biodiversity resources.

CONSERVATION & SUSTAINABLE USE OF SPECIES



Biodiversity is currently being lost at up to 1,000 times the natural rate.

JOIN THE OTHER PLEDGES COMMITTED TO PROMOTING CONSERVATION WITH THE ACTION AGENDA

A great example Is the pledge from Elephant Gin in Germany!

The company pledged to contribute 15% of bottle profits to partner foundations that are devoted to the conservation of the African elephant.

ELEPHANT GIN

SUSTAINABLE CONSUMPTION & PRODUCTION



Governments, business, and stakeholders need to take the steps necessary to bring resource consumption to sustainable levels

JOIN THE OTHER
PLEDGES COMMITTED TO
SUSTAINABLE
CONSUMPTION &
PRODUCTION WITH THE
ACTION AGENDA!

A great example is the pledge by The Spanish Business and Biodiversity Initiative





to publish every three years a compilation of best practices from business that helps to promote the transformative change that the business sector needs to undertake to ensure an economy that is sustainable and compatible with biodiversity.



This pledge has 24 partners including Nestle, Unilever & Heineken

This pledge intersects with 4 other Action Agenda categories

- 1.Climate change mitigation and adaptation
- 2.Conservation and restoration of land ecosystems
- 3.Conservation and sustainable use of species
- 4.Freshwater, coastal &ocean ecosystems stewardship

STEWARDSHIP



Stewardship is the responsible management of land and water to ensure its values and services are maintained for future generations.

JOIN THE OTHER PLEDGES COMMITTED TO BIODIVERSITY STEWARDSHIP WITH THE ACTION AGENDA



A GREAT EXAMPLE IS THE PLEDGE FROM KERING

- (1) regenerating 1 million hectares of farms and rangelands inside its supply chain landscapes
 - (2) protect an additional 1 million hectares of critical, 'irreplaceable' habitat outside of its supply chain

This will be achieved though investments that safeguard biodiversity, enhance carbon sequestration, and improve local livelihoods.

This pledge intersects with 3 other Action agenda categories:

1.Climate change mitigation and adaptation 2.Conservation & restoration of land ecosystems 3.Sustainable consumption and production

GREEN FINANCE



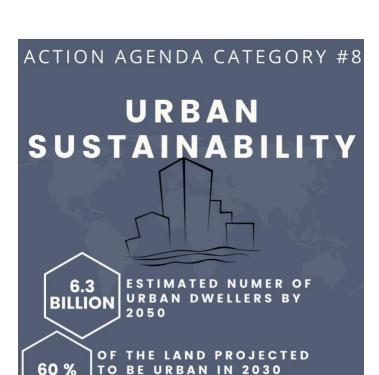
JOIN THE OTHER PLEDGES COMMITTED TO PROMOTING GREEN FINANCE WITH THE ACTION AGENDA

A great example Is the pledge from Karner Blue Capital

The firm invests across a broad range of industries and market-capitalizations seeking forward-looking companies that are developing innovative solutions to preserve biodiversity.



For this pledge Karner Blue Capital partners with
1.Intentional Endowments Network
2.Principles for Responsible Investment Association
3.Interfaith Center on Corporate Responsibility



Join the other pledges committed to Urban Sustainability with the Action Agenda

HAS YET TO BE BUILT

A great example is the pledge from the City of Montreal, Canada!



This pledge focuses on 6 initiatives that promotes biodiversity, provides advice to help replicate the initiative in other cities, and specifies which 2030 action targets from the Post-2020 Global Biodiversity Framework are addressed by the initiative.

This pledge has two partners:



BIOSAFETY

Technology is always changing, and that includes biotechnology, where new developments are opening up new possibilities to address global challenges

These new applications of different chnologies should go hand in hand with biosafety measures that are effective in safeguarding biological diversity.

JOIN THE OTHER PLEDGES COMMITTED TO PROMOTING BIOSAFETY WITH THE ACTION AGENDA.

A great example is the pledge from The Every Woman Hope Centre In Nigeria



This pledge aims to

- mobilize strategic plans & actions, for public awareness purposes on biosafety or biodiversity
- facilitate awareness-raising activities to disseminate adequate information on implementation strategies

CLIMATE CHANGE MITIGATION & ADAPTION

Biodiversity has a crucial role in climate change mitigation. Fighting both is inseparable.



JOIN THE OTHER PLEDGES COMMITTED TO ADDRESSING CLIMATE CHANGE WITH THE ACTION AGENDA

A great example is the pledge from the New Global Fund Coral Reefs





This project mobilizes public and private resources to support developing countries meet their commitments under the new post-2020 Global Biodiversity Framework.

The Global Fund will offer critical risk equity capital and grant funding to deliver on exciting projects that offer solutions to climate change related to coral reefs.

This pledge intersects with three more
Action Agenda categories:
Food systems and health & Freshwater, coastal and
ocean ecosystem & Green finance

ACTION AGENDA GOALS

PROMOTE ACCESS TO BENEFIT SHARING

WHAT IS ABS?

- THE WAY GENETIC RESOURCES MAY BE ACCESSED
- HOW THE BENEFITS FROM THEIR USE ARE SHARED BETWEEN USERS & PROVIDERS



WHY IS ABS IMPORTANT?

- BETTER WAY TO UNDERSTAND THE NATURAL WORLD
- BETTER PRODUCTS & SERVICES FOR HUMAN BENEFIT
- CONTRIBUTE TO MORE EQUITABLE DEVELOPMENT & SUSTAINABILITY



NON-MONETARY BENEFITS

- research & development
- training & education
- transfer of technology
- royalty payments
- joint ownership of Intellectual property <u>rights</u>

Providers of genetic resources:

States have sovereign rights over natural resources under their jurisdiction.
Conditions should facilitate access to these resources for environmentally sound uses.

Users of genetic resources:

users are responsible for sharing the benefits derived from genetic resources with the providers.