

With financial support from the Russian Federation





Climate Box

Understanding Climate Change and Taking Action Together

Easy-to-Read Edition

2026

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the Russian Federation

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Welcome to Climate Box

Easy-to-Read Edition

What is Climate Box?

Climate Box is an educational programme. It was created to help people learn about climate change. It also helps people discover practical ways to take action.

Climate Box was developed by the United Nations Development Programme (UNDP) with financial support from the Government of the Russian Federation.

Climate Box is used in schools, communities, and youth programmes in many countries.

What is Climate Box Easy-to-Read Edition?

Climate change affects everyone. But not everyone has equal access to clear information.

Many books and resources about climate change use difficult language. Long sentences and technical words can make learning difficult for some people. No one should be left behind when learning about climate change.

This book was created to make climate education easier to understand and more accessible for everyone.

Easy-to-Read is a way of writing that is clear and simple.

Easy-to-Read helps people with different learning needs, backgrounds, and experiences access important information more easily.

Who is this book for?

This book is created to support people who:

- prefer simple and clear explanations,
- find reading difficult,
- are learning in a second language,
- are new to the topic of climate change,
- have different educational backgrounds or learning needs.

You can find more stories, games, animated and educational videos on climate change at **www.climate-box.com**

Climate Box



About this book

Our planet Earth is the home we all share.

But the climate of our planet is changing.

Are you curious about what is happening to our planet?

Do you want to know why climate is changing?

Do you want to learn how people can help?

Then this book is for you.



This book explains:

- what climate is, how and why it is changing;
- how climate change affects nature and people;
- what we can do to protect our future.



How this book is organized

This book has three parts.

Each part explains a different topic about climate change.

Part 1. The problem of climate change



This part explains what climate is.

You will learn how and why climate changed in the past and how it is changing today.

You will also learn what global warming is and why it is happening.

Part 2. How climate change affects nature and people



This part shows how climate change affects our world.

You will learn how climate change affects weather, forests, water, mountains, cities, plants, and animals.

You will also learn how climate change affects people's health and way of life.

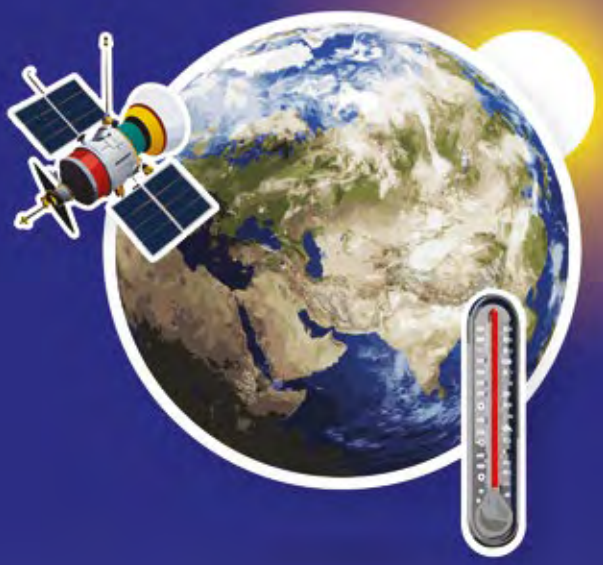
Part 3. How to prevent dangerous climate change



This part explains how people produce and use energy.

You will learn how people can reduce greenhouse gas emissions.

You will also learn how to save energy, protect nature, and help the planet.



Part 1

The problem of climate change

Part 1.

The problem of climate change



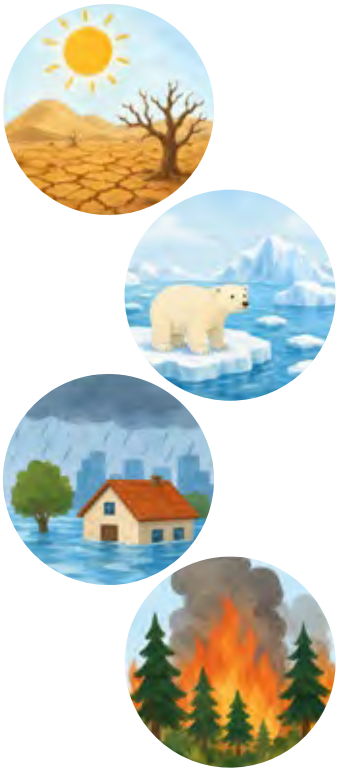
Scientists have measured temperatures in different parts of Earth for many years.

The results show that our planet is getting warmer.

This is called **global warming**.

This warming is causing changes in the Earth's climate.

These changes are called **climate change**.



The Earth's average temperature has risen by about 1.2°C in the last 100 years.

That may sound small. But even a small rise in temperature can cause big problems.

Winters are getting warmer. Glaciers are melting. Some rivers are getting less water.

Sea levels are rising. Some coastal towns may soon go underwater.

Storms, floods, and droughts are getting stronger. They cause more damage to us and nature.

Plants, animals, and people are also affected by the heat.



Remember

These are not just one-time weather events.

These are long-term changes in our climate. They affect how people grow food, find water, and live their lives.

How did the Earth's average temperature change in the last 100 years?

1.1 Weather and climate



People often use the words **weather** and **climate**.

But these words do not mean the same thing.

First, let us understand what they mean.



What is weather?

Weather is what is happening outside right now. Weather can be:
- hot or cold;
- rainy or dry;
- windy or calm;
- sunny or cloudy.

Weather can change very quickly. That is why people check weather forecasts every day.

What is the weather like today?
Can weather change during one day?



What is climate?

Climate is what the weather is usually like in a place over many years.

To understand climate, scientists study weather over a long time.

Climate changes very slowly, over decades or centuries.



Remember

Weather is what happens today.

Climate is what usually happens over many years.

1.2 Types of climates



Different places on Earth have very different climates.

For example:

- some places have hot weather all year round;
- others have hot summers, but cold winters and lots of snow.

Why are climates different?



The Sun heats Earth unevenly.

Near the equator, the Sun's rays are stronger and more direct. These regions are warmer.

Closer to the poles, the Sun's rays are weaker. These regions are colder.

Mountains, oceans, and winds can also affect the climate of a place.

? **Why is it warmer near the equator?**

Climate zones



Scientists divide the Earth into large zones where climates are similar. These are called climate zones.

Climate differs from one zone to another. Places in the same zones have similar seasons and temperatures.

On climate maps, areas with the same climate are shown in the same color.



Hot and rainy zones

These are found near the equator.

Here the weather is warm all year.
It rains a lot, almost every day.

These places have thick green forests with many different animals and plants.



Hot zones with wet and dry seasons

Some warm places have two seasons.

A rainy season with lots of rain.

A dry season when rain is rare.

Grasslands and savannas are located in these zones.



Hot and dry zones

These places get very little rain.

Days can be very hot. Nights can be very cold. Deserts are found here.

Only a few types of plants that can survive with very little water are found here.



Mild zones

These places have four seasons.

Summers are warm. Winters are cool.
The weather in spring and autumn is mild.

Rain is common during the whole year.
These places have lush forests and grasslands.



Cold zones

These places are far from the equator.

Winters are long and cold. Summers are short and cool.

Snow covers the ground for many months.

Only mosses, grasses, small trees, and shrubs can grow here.



Polar zones

These are near the North Pole and the South Pole.

It is extremely cold here. Ice and snow cover the land almost all year.

Only a few special animals and plants can survive here.

?

Which climate zone do you live in?

Do you have winter in your climate zone? What is it like?

1.3 How the climate changed in the past



The Earth's climate has changed many times before.

Millions of years ago it was much warmer.

Thick green forests with giant trees covered many places.

Dinosaurs lived during these times.



At other times, the Earth was much colder.

Huge sheets of ice covered large parts of the world. These cold periods are called ice ages.

These natural climate changes happened slowly over thousands or even millions of years.

How do we know about past climates?



Scientists, like detectives, study clues left in nature.

These clues help them understand what the climate was like long ago.

Scientists study rocks, fossils, tree rings, ocean mud, and deep layers of ice.



The most important clue comes from Antarctica.

Scientists drill deep into ancient ice.

They find tiny air bubbles trapped in the ice for hundreds of thousands of years.

These bubbles show how warm or cold the Earth was before.



Climate changes over millions of years

One reason Earth's climate changed over millions of years was the slow movement of the continents.



Long ago, all continents were joined together. It was one giant continent called **Pangaea**.

The Earth's surface is made of large plates that move very slowly. Over time, they drifted to new positions and formed separate continents.



Look at the maps of Africa and South America.

Do you see that their coasts match like puzzle pieces?

Long ago, Africa and South America were connected.



They were part of one huge continent called Pangaea.

Over millions of years, the continents slowly moved apart.

Today, the Atlantic Ocean lies between them.



Where a place is located affects its climate.

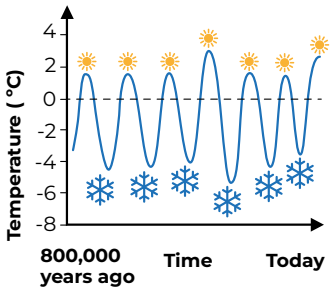
Near the equator, the Sun's rays are stronger, so the climate is warmer.

Near the poles, the Sun's rays are weaker, so the climate is colder.

The continents that moved closer to the equator got warmer. The ones that moved to the poles got colder.

?

What was one main reason for climate change millions of years ago?



Climate changes over hundreds of thousands of years

During the last 800,000 years, the Earth's climate changed often.

It switched many times between ice ages and warmer periods.

Today, we live in a warm period.



Earth moves around the Sun. Its position and tilt change very slowly over a long time. Changes in this tilt affect how much sunlight reaches different places.

When polar regions received less sunlight, the planet became colder.

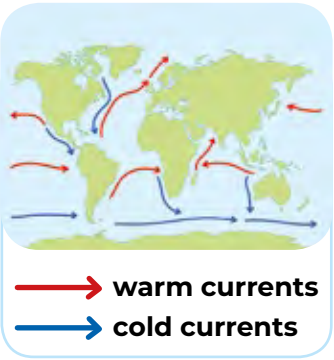
When sunlight increased again, the climate warmed up.



Climate changes over short periods

The climate can also change over shorter periods of time.

Natural events can affect the climate over several years.



Ocean currents

Oceans move warm and cold water around the world. These moving streams of water are called ocean currents.

Warm currents can make nearby places warmer.

Cold currents can make nearby places cooler.



Changes in the Sun's activity

The Sun's energy changes a little over time.

Sometimes it gives Earth a little more energy.

Sometimes it gives Earth a little less energy.

This can make Earth slightly warmer or cooler.



Big volcanic eruptions

Big eruptions send ash high into the air.

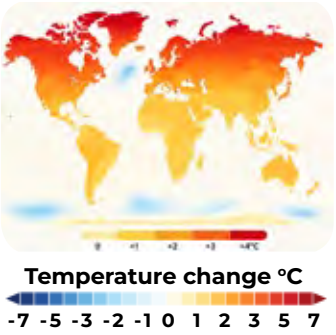
The ash can block some sunlight.

Less sunlight reaches the Earth.

This can make Earth cooler for a few years.

Can you name at least one natural factor that can affect the climate?

1.4 Climate change today



Today, Earth is warming up very fast.

The average temperature has risen by about 1.2°C in the last 100 years.

The ArcticEither connect second sentence to the previous or make same interpara space as with previous para four times quicker than the rest of the world.



Human activities are changing the climate

Scientists all over the world agree: today Earth is getting warmer mainly because of human activities.

Greenhouse effect

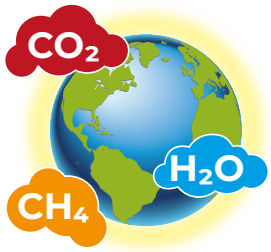


The air around the Earth keeps some heat near the planet, like the glass in a **greenhouse**.

This is called the greenhouse effect.

It happens because some gases in the atmosphere stop some heat from escaping into space.

These gases act like a blanket around the planet. Without it, Earth would be too cold for people, animals, and plants to live.



Greenhouse gases are gases in the air that trap heat.

The main ones are carbon dioxide (CO_2), methane (CH_4), and water **vapor** (H_2O).

?

Why is Earth getting warmer?

What are greenhouse gases?

Why is the Earth warming today?



Human activities add a lot of extra greenhouse gases to the air.

This makes the greenhouse effect much stronger.

More heat gets trapped. Earth gets warmer.

The greenhouse effect is natural and good. The problem is that people are making it too strong.





Human activities that cause climate change

About 150 years ago, people began building many factories.

Factories needed large amounts of energy. We started burning more fossil fuels like coal, oil, and gas.

Burning fossil fuels increases greenhouse gas emissions that warm the Earth.

Today, there are more greenhouse gases in the atmosphere than at any time in human history.



People release greenhouse gases in many ways:

- burning coal, oil, and gas to produce electricity and heat;
- driving cars and flying on airplanes;
- leaving large amounts of waste;
- raising a large number of farm animals;
- cutting forests.

? **Can you name at least two human activities that release greenhouse gases?**



How does nature help?

Forests, soils, and oceans absorb some carbon dioxide from the air. They act like giant sponges.

But they have limits.

When forests are cut down, less carbon dioxide is removed from the air.

Oceans and soils also cannot absorb all of the gases that people release.



What is climate change causing?

Some places get much more rain and flooding. Other places have long droughts and water shortages.

Storms are becoming stronger and more dangerous.

Sea levels keep rising.



Oceans become more acidic.

This harms fish and other sea animals.

Forests dry out, and fires spread more easily.

Plants, animals, and people find it harder to adapt.

?

Name at least two changes in nature that happen because the Earth is warming.

How can these changes affect people?

What might happen in the future?

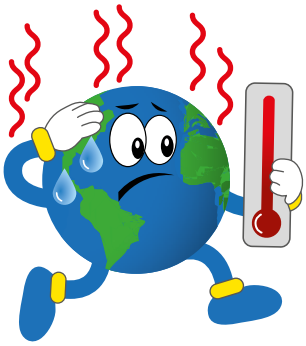


Scientists use computer models to predict the future.

What happens depends on what we do now.

If we reduce emissions quickly:

- warming may stay below 2°C;
- the world will stay more stable.



If emissions keep rising:

- the planet could warm up by more than 5°C by 2100;
- this would cause massive changes everywhere.

What does this mean for us?



Human activity is the main cause of today's fast warming.

The choices we make today are very important for the future.

The good news is that people can still act.



We can reduce greenhouse gas emissions by:

- saving energy;
- using clean sources of energy;
- protecting forests;
- producing less waste;
- choosing how we grow food.



Part 2

How climate change affects nature and people

Part 2.

How climate change affects nature and people



Earth is getting warmer.

This is changing the climate and the world around us.

Everything on Earth is connected.

Plants, animals, forests, rivers, oceans, and people all depend on each other.

When one thing changes, it affects many other things too.





How climate change affects life

Climate change affects nature and people's lives.

It affects weather, water, plants and animals, ecosystems, and people's health.

Some of these effects are already happening. For example, some places get more heatwaves, floods, and droughts.

Others may get worse in the future.



Living with climate change

Plants and animals are adapting to new conditions.

Some animals and plants are moving to new places or changing the way they live.



People also need to adapt to the changing climate.

We can protect nature and make it more resilient.

We can change the way we use water and produce food.



We can make our homes safer from climate dangers.

We can prepare for floods and heatwaves.

We can learn about climate change and help others learn too.

? **Can we adapt to climate change? How?**

2.1 How climate change affects the weather



Weather is becoming more extreme. In recent years there have been more:

- strong storms;
- long droughts;
- large floods;
- big wildfires.



These events have happened before.

Climate change is making some of them happen more often.

It is also making some of them stronger and more dangerous.

Unusual and dangerous weather





Sometimes the weather is very different from what is normal.

This is called a weather anomaly.

An anomaly is something that is not normal or expected.

For example, snow falling in summer is a **weather anomaly**.

Sometimes weather becomes dangerous.

This is called **extreme weather**.

Examples include floods, heatwaves, droughts, and strong storms.

Extreme weather can harm people, homes, animals, and nature.



Remember

These dangerous events happened before too.

But climate change is making them stronger and more common.

Have you noticed any anomalies in the weather where you live?

Types of extreme weather

Heatwaves



A heatwave happens when temperatures stay much higher than normal for several days.

Since the year 1950, heatwaves have changed.

Now, heatwaves happen more often.

They also last longer.

Heatwaves can be dangerous for people, animals, and plants.

Droughts



A drought happens when very little or no rain falls for a long time.

When the air is warmer the soil dries up much faster.

This makes it harder to grow food.

Droughts also make it harder to find clean drinking water.

Strong storms



Warmer oceans give storms more energy.

This can make storms stronger.

Strong storms often bring heavy rain and cause dangerous floods.

Heavy rainfall and floods



In warmer weather, water turns into a gas called water vapor.

This water vapor goes up into the air.

It comes from oceans, rivers, lakes, and even plants and soil.



This water later falls back to Earth as rain.

More water vapor can cause heavier rains. When it rains, a lot of water can fall in a short time.

The ground cannot absorb all the rainwater.

This causes floods.

Wildfires



Hot and dry weather dries out trees and grass.

Dry plants catch fire more easily.

This is why wildfires are happening more often these days. And why they are stronger than before.

?

Which types of extreme weather happen where you live?

What kinds of extreme weather have you heard about on the news?

Can we predict the weather?



Short-term weather forecasts are usually accurate.

They can predict weather for the next few days.

It is much harder to predict the weather many weeks ahead.

Most forecasts are accurate only up to 10 to 14 days.



Scientists can predict general trends over longer periods.

For example, they can see if a whole summer will be hotter than normal.

But they cannot predict exactly where or when every heatwave or storm will happen.

?

Is it possible to predict accurately the weather for tomorrow?

What about for one month?



Preparing for dangerous weather

Even when we know extreme weather is coming, we cannot stop it.

But we can prepare and stay safer.

Early warning systems



Scientists use special tools to watch and predict the weather. They may see when a dangerous storm or flood is coming and can warn people. Warnings appear on TV, radio or mobile phones. This gives people time to:

- move to a safe place;
- store food and water;
- get essential items, such as clothes, medicine, and documents.

Safer homes and towns



Flood barriers and water drains can help stop floodwater from entering streets and buildings. Strong roofs and windows help keep homes safe during storms and strong winds. These are just some ways people can protect themselves from extreme weather.

Simple steps to stay safe





During heatwaves

- drink plenty of water;
- stay in the shade or cool places;
- cover your head when outside;
- wear light-colored clothing.

During floods and storms:

- check weather warnings;
- follow safety instructions;
- move to a safe place if needed.

What would you do during a heatwave?

2.2 How climate change affects plants and animals



Nature gives us many things we need to live. It gives us food, clean air and water.

It also gives us materials to build our homes and make medicine.

Nature helps protect us from dangerous weather. For example, trees give us shade and help cool the air.

But climate change is hurting nature too.

Nature works better together



Nature is stronger when many different plants and animals live together.

Imagine a forest where birds eat only one type of insect. If a drought kills these insects, the birds cannot find enough food. They may not survive or will have to leave.

Everything in nature is connected.

When one plant or animal disappears, other living things can also be affected.



Now imagine a forest with many different insects. If one insect disappears, birds will still have plenty of food.

More species means nature can adapt more easily to change.

Why nature is in danger





Human activities are damaging nature.

People cut down forests, pollute rivers and oceans.

They also destroy the natural homes of plants and animals.

Roads, cities, and farms also break natural areas into smaller parts.

Because of this many animals can no longer move safely to new places. It gets harder for them to adapt to the changing climate.

Some plants and animals are now at risk of disappearing forever.

Climate change makes these problems even worse.

How climate change affects nature





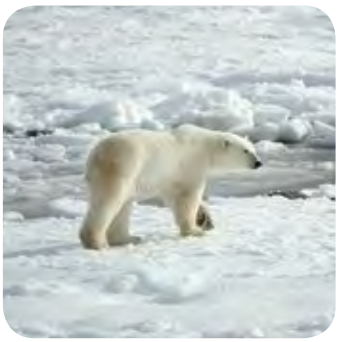
Animals and plants need certain conditions to survive.

They need the right temperature, enough water, food, and safe places to live.

Climate change is changing these conditions.

Some plants and animals adapt and find new ways to live or move to cooler places.

Some cannot adapt quickly enough and may disappear forever.



Polar bears

Polar bears use sea ice to hunt and breed.

As the Arctic becomes warmer, the ice melts earlier.

Polar bears must travel farther to find food and rest.



Coral reefs

Water that is too warm can damage coral reefs.

Many fish lose their homes and do not get enough food when coral reefs die.

When this happens, some fish move to new places, and others disappear.



Pandas and bamboo

Giant pandas eat bamboo.

Climate change is making mountain forests hotter and drier.

Some bamboo plants can't grow in such conditions. They are moving higher into the mountains.

Pandas may not find enough food.

This means fewer pandas may survive.

?

Which animal in your country do you think is most affected by climate change?

How we can help nature



People can help protect nature.

You can plant trees and flowers. They give food and shelter to many animals, birds and insects.

Keep forests, wetlands, rivers, and seas clean so animals can live there safely.

Use less plastic and do not litter in nature. Our trash is very harmful to the environment.

Learn how to collect herbs or mushrooms without harming nature.

? **What is one thing you could do to help nature where you live?**



2.3 How climate change affects forests



Forests are very important for life on Earth.

They are home to many plants and animals. Some forests grow in hot tropical regions. Others grow in cold northern areas.

Forests can look very different, but all of them are important for nature and people.



Forests give us many resources we need to live. They make oxygen.

They give us clean water, food, and wood for building and plants for medicine.

Forests also help by holding onto carbon.

They trap carbon inside their trees and soil.

This keeps carbon dioxide out of the air and helps slow down climate change.

? Why are forests important for people?



How does climate change affect forests?

Forests depend on temperature and rainfall.

Higher temperatures dry out trees and soil.

Droughts make trees weaker.

Weak trees can get sick or be damaged by insects much more easily.



Strong storms and heavy winds can also break trees.

Wildfires happen more often in hot and dry weather.

When forests burn or are damaged, carbon dioxide goes back into the atmosphere.

This gas traps more heat around Earth.

This makes climate change even worse.



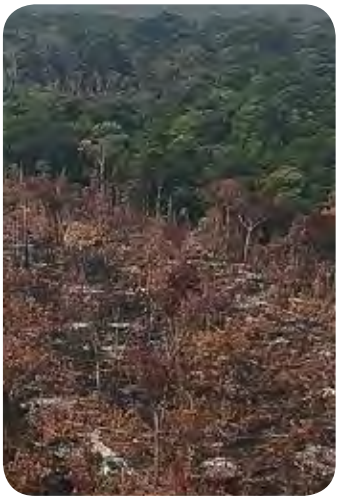
Climate change can also change where forests grow.

In some places, as temperatures rise, forests may slowly shift northward or higher into the mountains, where it is cooler.

In other places, forests disappear because the climate becomes too hot or too dry.

? Why is hot and dry weather dangerous for forests?

Droughts in the Amazon forests



The Amazon rainforest is the largest rainforest on Earth. It is home to many different plants and animals.

In recent years, climate change has brought more heat and droughts to the Amazon.

During these long dry periods, trees do not get enough water. Many trees have dried out.

As this happens, many animals and plants lose their food source and homes.



Forest fires in Siberia

Siberia is a very large, cold region in Russia.

It has huge forests with many pine and fir trees. These forests are called taiga or boreal forests.

Lately, rising temperatures have caused more frequent and larger wildfires there.

Some forest fires burned for many weeks. They have destroyed large areas of forest.

How can we help prevent forest fires?



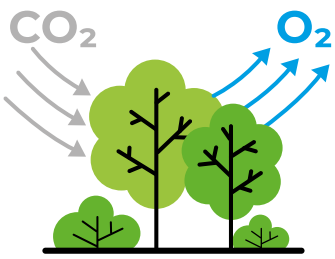
Many forest fires start because of human actions. Even a small spark can cause a large fire in dry weather.

We can help protect forests by following simple rules:

- never leave campfires burning;
- clean up trash;
- do not leave bottles or broken glass in forests;
- do not burn dry grass.

? **Why are forest fires happening more often?**

How forests help fight climate change



Forests help slow climate change.

Trees absorb large amounts of carbon dioxide every year. They store it in their trunks, branches, leaves and roots.

Forests also cool the air around them.

They can protect us from floods and landslides.

What can people do?



People can help protect forests by:

- planting and protecting trees;
- preventing forest fires;
- using less paper and recycling paper.

When we protect forests, forests protect us.

What kind of forest is the closest to where you live?

What animals and plants live there?



2.4 How climate change affects water



Water is essential for all life.

People, animals, and plants all need water to survive.

Climate change is affecting water all over the world.

It is changing when and where rain falls. It also changes how much water we have and how clean it is.

Water on Earth





Water is found everywhere on Earth. It is in oceans, rivers, lakes. It is also found deep underground, in the air, and frozen as ice.

But most of the water on Earth is salty and is in the oceans. We cannot drink salty water or use it to grow plants.

We need fresh water to live.

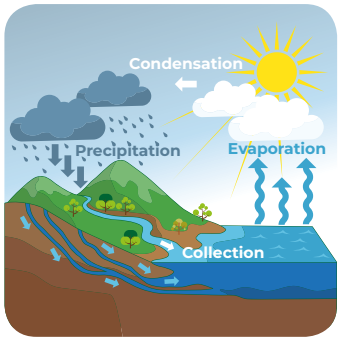
A large part of our fresh water is frozen away as ice. This ice is frozen inside giant mountains of ice called glaciers.

Only a tiny amount of fresh water is left for people, animals, and plants to use.

That is why it is very important to protect fresh water and use it carefully.

? **Can all the water on Earth be used by people? Why not?**

The water cycle



Water is always moving.

This is called the water cycle.

Water evaporates from oceans, rivers, lakes, and soil.

It rises into the air and forms clouds.

Then it falls back to Earth as rain or snow.

How climate change affects rainfall



When temperatures rise, more water evaporates. Evaporates means the water turns into a gas and rises up into the air.

Because of this, more rain falls around the world. But this rain does not fall evenly.

Some places get too much rain and experience floods. Others get too little rain and experience droughts.

Too much water



In some places, rain is falling more heavily than before. Large amounts of rain can fall in a very short time.

The ground cannot absorb so much water so quickly.

Water builds up on the ground and causes floods.

Floods can damage homes, roads, farms, and nature. They can even harm people and animals.

Too little water



In other places, rainfall is getting less frequent.

Higher temperatures dry out soil, rivers, and lakes faster.

This leads to droughts and water shortages.

Droughts make it harder to grow food and find clean drinking water.

The role of glaciers



Many rivers depend on glaciers and mountain snow.

In spring and summer, melting ice fills rivers with water.

As temperatures rise, glaciers are shrinking.

At first, rivers get more water as ice melts faster.



As glaciers shrink, some rivers carry less water, especially during dry periods. This causes big problems for millions of people.

It threatens their clean drinking water.

It makes it hard to grow food on farms.

It also stops hydropower stations from making electricity.

? **What problems can happen when glaciers shrink?**

Water quality



Climate change also affects how clean water is.

During heavy rain, mud, waste, and harmful chemicals wash into rivers and lakes.

During droughts, water becomes warmer and still. Harmful bacteria grow more easily in warm, slow-moving water.

Both situations can make water dirty and unsafe to use.

What can we do?





Every drop of clean water is precious, and everyone needs to protect it:

- **Use water carefully.** Turn off taps, fix leaks, and do not waste water at home or at school.
- **Keep rivers, lakes, and streams clean.** Never throw trash, chemicals, or waste into water.
- **Protect forests and green areas.** Trees help keep water in the soil and reduce droughts and floods.

? **What can you do to save water at home or at school?**

2.5 How climate change affects agriculture



Today, food comes mainly from farms.

Farmers grow crops and raise animals to feed people everywhere.

But farming depends on the weather conditions.

Climate change is making the weather difficult to predict. This makes it much harder for farmers to grow food.



What farmers need to produce food

To produce food successfully, farmers need:

- enough rain but not too much;
- warm temperatures but not extreme heat;
- enough water and food for farm animals;
- predictable seasons so they know what and when to plant and harvest.

Climate change is changing these conditions. It makes food production more difficult around the world.

?

What are the main crops or farm animals in your region?

How could climate change affect them?

How climate change affects crops



Higher temperatures can damage crops.

Some plants stop growing or producing fruit when it becomes too hot.

Droughts dry out the soil and reduce harvests.

Floods can wash away crops and damage farmland.

Warmer temperatures also help pests and plant diseases spread to new places.

How climate change affects livestock





Farm animals also suffer when it gets too hot.

Very hot weather can make cows, sheep and other animals weak and sick.

When this happens, they produce less milk and meat.

Droughts reduce the grass and water that animals need.

Floods can also hurt animals and wash them away.

Warmer weather also brings more bugs. These bugs carry dangerous diseases that make animals sick.

Remember



Climate change affects the food on our plates.

It can change what we are able to eat.

It can make food cost more money.

It can also make it harder for families to get enough food to stay healthy.

What can farmers do?







Farmers can adapt to the changed climate in different ways.

Saving water

Farmers are finding smart ways to save water when the weather gets hot and dry.

Drip irrigation is a special way to water plants. Long tubes with tiny holes let water drip directly onto the plant roots.
This saves water because none of it is wasted on the empty dirt.

Watering crops early in the morning or late in the evening helps reduce water loss during hot weather. This stops the hot sun from drying up the water before plants can drink it.

Covering soil with straw, leaves, or grass helps keep moisture in the ground.

Protecting crops

Planting trees and bushes around fields helps protect fields from strong winds or floods.

Special nets protect fruit and vegetables from hailstorms.



Growing smarter

Some crops can grow better in hot and dry weather and need less water. Choosing the right crops for the local climate is important.

Growing different crops helps reduce the risk of losing all harvests. If the weather gets too hot and one type of plant dies, the others might still survive.

Remember



Burning dry grass and old leaves on fields causes serious problems.

It creates thick smoke and makes the air dirty and unsafe to breathe.

Burning plants also releases greenhouse gases. These gases trap heat around Earth and make climate change worse.

What can you do?



Compost food scraps

Vegetable peelings, fruit skins, eggshells, leaves, and other plant waste can be used for composting.

Put them in a compost bin or pile in the garden. Over time, they break down naturally and turn into rich soil that helps plants grow.



Grow your own plants

You do not need a big garden. A few pots on a balcony or windowsill are enough. Try growing tomatoes, herbs, or berries.

What can farmers do with plant waste?



Farmers can leave old plants on top of the soil instead of burning them.

They can also turn dry grass, leaves, and other plant waste into compost.

Plant remains and compost act like natural food for the soil. They help keep the soil healthy, moist, and strong.

? **Think about your favorite food. How might climate change affect its production in the future?**

2.6 How climate change affects coastal regions





Coastlines are areas where the land meets the sea.

Coastal regions include beaches, coral reefs, mangrove forests, and wetlands.

Many people around the world live in coastal regions. These areas are also home to many animals and plants.

But climate change is creating serious problems for coastal regions.

Rising sea levels





One of the biggest dangers for coastal regions is rising sea levels.

As Earth warms up, two things happen to our oceans.

First, ice sheets and glaciers melt. This adds more water to the oceans.

Second, the ocean water itself gets warmer.

When water gets warm it takes up more space.

Both of these cause sea levels to rise.

Even when the water rises a little bit, it causes big problems for people and animals living on the coast.

?

Why are sea levels rising as the climate becomes warmer?

What happens when sea levels rise?



Rising seas can flood low coastal areas. Seawater can move into towns, farms, and roads.

Salty seawater can also enter rivers and underground water. This can make water unsafe to use for drinking. Salty water also damages crops and cannot be used in farming.



Strong waves slowly wash sand and soil away from the coast. This is called **erosion**.

As the sea level rises, waves reach much further onto the land. Over time, this changes the shape of the coastline. Sandy beaches can become smaller or disappear.

Small islands can disappear under water





Some small islands are only a few meters above sea level.

Saltwater can damage homes, roads, farmland, and freshwater supplies.

During strong storms, waves and floods can cover large parts of the land.

Some people may have to leave their homes and move to safer places.

These floods damage plants and animals too.

A lot of small islands across oceans are already affected by rising sea levels.

How can rising seas affect people living on small islands?

Stronger storms and flooding



Climate change is also making storms stronger. Rising sea levels and strong storms cause serious problems in coastal areas.

The storm winds push the ocean water much farther onto the land than usual. This causes major floods along the coast.



These storms can destroy people's homes, damage roads, and ruin animal habitats.

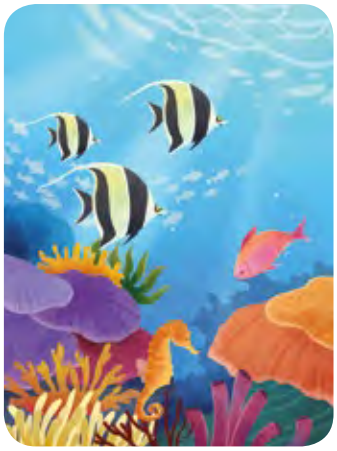
Many people may need to move away from flooded areas.



Threats to coastal ecosystems

Coastal ecosystems are also affected by climate change.

Coral reefs and mangrove forests are important coastal ecosystems.

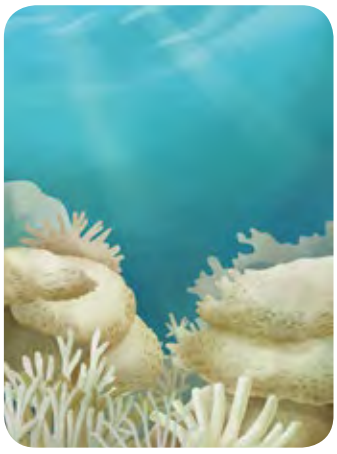


Coral reefs

Coral reefs grow in warm, shallow seas. They provide food and shelter for many fish and sea animals.

Coral reefs also help protect coasts from strong waves and storms.

Corals are living animals. Tiny algae live inside corals and help them stay healthy.



When ocean water becomes too warm, the algae leave the corals.

Without the algae, corals become weak, turn white, and can even die.

When coral reefs are damaged, many sea animals lose their homes and food.

Coastal regions also become less protected from waves and storms.

Why are coral reefs important for sea animals and people?

Mangrove forests



Forests that grow near the sea in warm tropical regions are called **mangrove forests**.

Their trees have strong roots that rise above the water and soil. These roots help protect coasts from waves and storms.

Rising sea levels and stronger storms can damage mangrove forests.

Without mangroves, coastal regions become more vulnerable to floods and erosion.

? Why do coastal regions need mangrove forests?

How climate change affects fishing





Many people live near the sea. They fish to get food. They also fish to earn money.

But climate change is changing the ocean.

The water is getting warmer. Many fish cannot live in warm waters. They swim to cooler places.

Fewer fish are left in the area. Storms can also make fishing more difficult.

Because of this many people may have less food and earn less money.

? Why can climate change make fishing more difficult?

What can we do?



People can help protect coastal regions in many ways. We can:

- throw trash into bins and use less plastic;
- help keep beaches, rivers, and seas clean;
- protect coral reefs and mangrove forests;
- save energy to slow climate change.

When we protect coastal ecosystems, they help protect us.

? **What problems can climate change cause in coastal regions?**

2.7 How climate change affects mountains





Mountains are home to many plants, animals, and people. Many rivers begin up in the mountains.

Mountains collect a lot of water.
They catch rainwater when it rains.

Tops of mountains are very cold.
Up there, water turns into snow and ice.

This water flows down into the rivers.

People use this water for drinking and farming. They also use it to make electricity.

But climate change is warming mountain regions very quickly.

Why are mountains important for people?

Glaciers are melting



Glaciers are huge areas of ice in mountains.

Over many years, snow builds up and slowly turns into ice.

Today, many glaciers are melting because the climate is getting warmer.

Glaciers in many mountain regions are becoming smaller every year.

When glaciers shrink, less water remains to fill the rivers.

What is happening to glaciers because of climate change?



Less snow affects tourism in the Alps

The Alps are high mountains in Europe. They are a popular place for ski tourism.

Many people in this region work in ski resorts.



The glaciers in the Alps have already lost much of their ice.

Some mountain regions now get less snow in winter.

The snow also does not stay as long as it used to.



Without much snow, ski resorts can't work.

Fewer people visit these places.

Many ski resorts in the Alps are closing.

This is a big problem for people who work at ski resorts.

They earn less money to support their families.

How can melting glaciers affect people living in the Alps?



Melting glaciers in the Andes cause water shortages

The Andes are long mountains in South America.

Many rivers in this region are fed by glaciers.



Cities, villages, and farms use this water every day.

As glaciers become smaller, rivers carry less water during dry periods.

Some regions already face water shortages because of this.

How can melting glaciers affect people and rivers?



Plants, forests, and animals move higher

Mountain regions are becoming warmer.

Some plants and forests can't grow in warm temperatures. They begin growing higher in the mountains where it's cooler.



Animals also move higher to find cooler places. But forests cannot move quickly.

Some animals may not find enough food or shelter in new places.

Some mountain species of animals and plants may disappear.

? **Why can climate change be dangerous for mountain plants and animals?**



Mountains are becoming more dangerous

In cold mountain regions, the deep ground is frozen. It has been frozen like ice for thousands of years. This frozen ground is called **permafrost**.

Now, the weather is getting warmer. The permafrost is beginning to thaw.



When permafrost thaws, rocks and soil become loose.

They can suddenly fall down mountain slopes.

This causes landslides and rockfalls that can destroy roads, homes, and even entire villages.

Why mountains matter for everyone



Even people who have never visited a mountain depend on them.

Mountains store water as snow and ice.

They release this water slowly through rivers throughout the year.

Water flows down the mountain into nearby towns. These towns need the mountain water to survive.

When mountains change, it causes big problems. It affects many people living in the area and far away.

How can people adapt to climate change in mountains?



People can take steps to live more safely in mountain regions.

People can protect forests from wildfires. They can also plant new trees.

Tree roots help hold soil in place and reduce the risk of landslides.

People can store water in reservoirs and use it during dry periods.

People can avoid building houses and growing crops in places at risk of landslides and floods.

How can forests help make mountain regions safer?

2.8 How climate change affects the Arctic



The Arctic is the region around the North Pole. It is one of the coldest places on Earth.

It is covered by frozen ocean, called sea ice, and surrounded by tundra and permafrost.

The Arctic may seem far away from most people's lives.

But what happens there affects the whole planet.

The Arctic is warming fast



The Arctic is warming nearly four times faster than the rest of the world.

As snow and ice melt, darker ocean water and land are exposed.

These absorb more heat from the Sun than white snow and ice do.

This causes the Arctic to warm even faster.

Sea ice is disappearing



Sea ice covers large parts of the Arctic Ocean in winter.

Today, warmer temperatures are causing more ice to melt.

Each year, the Arctic has less sea ice than before.

What is happening to sea ice in the Arctic?

Frozen ground is melting



Some Arctic regions have ground that has been frozen for thousands of years.

This frozen ground is called permafrost.

As temperatures rise, the frozen ground begins to melt.

The ground can sink and crack.

Roads and buildings can be damaged.

How can melting permafrost affect people and nature?



Arctic animals are losing their homes

Many Arctic animals depend on sea ice.

Polar bears use sea ice to hunt for food. Walruses use sea ice to rest.





As sea ice melts, these animals have less space to live, rest, and find food.

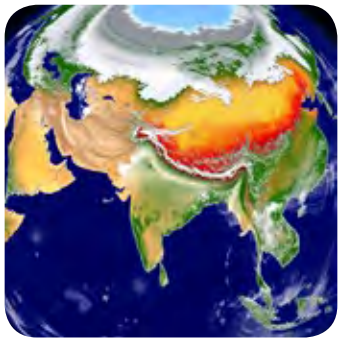
Hungry polar bears may come closer to towns and villages looking for food.

This can be dangerous for both people and animals.

Many birds that nest in the Arctic are also affected as their homes change.

Why do some polar bears come closer to villages?

Changes in the Arctic affect the whole world



The Arctic may seem far away. But what happens there affects everyone.

The Arctic acts like a giant cooling machine. It helps keep the whole Earth safe and cool.

As the Arctic becomes warmer, weather in other regions can also change.

Melting ice in the Arctic also fills the ocean. It makes sea levels rise around the world.

Why can changes in the Arctic affect people living far away?



Remember

The Arctic acts like a giant air conditioner for the planet.

When it warms, the effects are felt everywhere.





Living in a changing Arctic

People living in the Arctic have to adapt to climate change.

They need to build safer homes and roads.

People must lock away their trash safely. They must store their food where animals cannot smell it. This keeps both humans and wild animals safe.

As some places become too dangerous, people may need to move.

Why do Arctic communities need to adapt to climate change?



2.9 How climate change affects cities and human health



More than half of all people in the world live in cities.

Cities are busy, crowded places full of buildings, roads, and people.

Climate change is making life in cities harder in many ways.

It is also creating new risks for people's health everywhere.

Why cities get hotter



Buildings and roads absorb heat from the Sun.

They stay warm for a long time and slowly release heat back into the air.

Cars, factories, and air conditioners also make cities warmer.

Cities usually have fewer trees and green spaces that can cool the air.

Because of this, cities are often hotter than nearby rural areas.

?

Why are cities often hotter than the rural areas?

Where does it feel cooler in summer — in a park or on a street without trees?



Heatwaves in cities

Heatwaves are becoming more frequent and more dangerous.

During heatwaves, cities may stay hot even at night.



This makes it harder for people to cool down and rest.

Extreme heat can cause dehydration, heatstroke, and heart problems.

Older people, young children, and sick people are often most at risk.

? Why can heatwaves be dangerous for people?

Heavy rain and flooding in cities



Heavy rainfall is becoming more common in many cities.

Roads and pavements cannot absorb much water.

During strong rain, water quickly floods streets and homes.

Floods can damage buildings. They can also make water dirty and unsafe to use.

? Why can cities flood quickly during heavy rain?





Flooding in Dubai, 2024

Dubai usually has a very hot and dry climate.

But in April 2024, the city had extremely heavy rain.

In one day, Dubai got more rain than it usually gets in a whole year. Streets turned into rivers.

The airport flooded and thousands of travelers were stranded.

Cars were submerged and homes were damaged.

How climate change affects human health





Climate change can affect people's health in many ways.

Extreme heat can cause dehydration and heatstroke.

Air pollution and wildfire smoke can make breathing difficult.

Floods can make water dirty and spread diseases.

Warmer weather also helps germs grow. The germs can spread much faster in the heat. This makes it easier for people to catch diseases.

Older people, children, and sick people are often most at risk.

How can climate change affect human health?

How can cities become safer?



To make cities safer and more comfortable for people, it is important to:

- plant more trees and create parks;
- create shaded areas at bus stops and on streets;
- build light-colored roofs that reflect sunlight;
- improve drains to reduce flooding;
- create more green spaces where rainwater can soak into the ground.

? **How can trees and parks help cities during hot weather?**

2.10 How climate change affects social problems



Climate change is not only affecting nature.

It is also affecting people's lives.

It affects how people live and work.

Climate change can also make some social problems worse.

Climate change and inequality



Climate change does not affect everyone equally.

Some people are more vulnerable to climate change than others.



Poor families often live in weaker homes. These homes can be more easily damaged by floods, storms, or strong winds. They also get very hot during heatwaves.

Many poor people depend on farming or fishing for their income. Droughts and floods can destroy crops and reduce fish populations.



This means climate change can affect people's homes and their ability to earn money.

As a result, poor people and families can become even poorer.

Climate change can make existing inequalities worse.

Who is the most vulnerable?



Some groups of people face greater risks from climate change:

- people living in poverty;
- women and girls in some places;
- children and older people;
- people living in remote areas far from emergency services;
- people whose way of life depends directly on nature.

Climate change and migration



Floods, droughts, rising seas, and extreme heat can make some places unsafe to live in.

Some families lose their homes, but also their land, traditions, and way of life.

They are forced to move to safer places.



This is called **climate migration**.

Some move to nearby towns or cities.

Others cross borders to find safety in other countries.

The number of people displaced by climate-related events is growing every year.

People are leaving some islands



Some small islands are already affected by rising sea levels.

Floods and saltwater damage homes, roads, farmland, and drinking water.

Some people now need to leave their homes and move to safer places.

They become **climate migrants.**

?

Why are some people forced to leave their homes because of climate change?

Climate change and conflict



Climate change can reduce access to water, food, and farmland.

When food and water are hard to find, people worry. They get scared they will not have enough.



This worry can make people angry.

Countries may start arguing. They might fight over who gets the water and land.

Climate change does not start wars by itself.

But when people are already angry, it makes things worse. It makes fighting and violence more likely to happen.

? Why can climate change increase tensions between communities?

Climate justice



The people who contribute least to climate change are often the most affected by it. This is called **climate injustice**.

Wealthy countries have produced most of the greenhouse gases that cause climate change.

But poorer countries face greater risks from floods, droughts, hunger, and storms.

Climate justice means working together to make climate action fair for everyone.

Those who caused more of the problem should take more responsibility for fixing it.







What can we do?

Climate change affects people in different ways.

Helping people who are most affected is an important part of climate justice.

People can:

- help people affected by floods, droughts, or storms;
- treat climate migrants with kindness and respect;
- learn more about climate change and share information with others;
- save water and energy;
- support actions that help reduce climate change.

Helping each other is an important part of adapting to climate change.

?

Why are some people more affected by climate change than others?

What can you do to help people affected by climate change?

Do you think climate action should be fair for all countries and communities?



Part 3

How to prevent dangerous climate change

Part 3.

How to prevent dangerous climate change





People use a lot of energy every day.

Much of this energy comes from burning coal, oil, and gas.

When we burn these fuels, greenhouse gases go into the air. Greenhouse gases build up in the atmosphere.

They trap the heat and warm the Earth. This is what changes the climate around the world.

But there is good news. People can help slow down climate change. We just need to reduce greenhouse gas emissions.



What can we do?

There are three main ways to reduce carbon dioxide in the air.

1. **Switch to clean energy.** We can get energy from the Sun, wind, and water. These sources of energy are called ‘clean’. They release very few greenhouse gases when producing energy.



2. **Use energy more efficiently.** We need to save electricity, heating, and fuel. This way we will burn less fossil fuel. So fewer greenhouse gases will go into the atmosphere.



3. Remove carbon dioxide from the air.
Nature can pull carbon dioxide out of the air. We can help by protecting our green forests. We can plant new trees. We can also restore wetlands.

? **Is it possible to slow down climate change? How?**

3.1 Where does energy come from?



We need energy every day. We use it to heat homes, cook food, travel, and power up our devices.

Energy is also used to make things. Almost everything around us needs energy to be made.



It is used to make our clothes, food, smartphones and even buildings.

But energy does not appear by itself. It comes from different energy sources.



Some energy comes from deep underground. When ancient plants and animals died, they were buried in the ground. Over millions of years, their remains turned into fossil fuels.

These include coal, oil, and natural gas.

When fossil fuels burn, they release carbon dioxide. This greenhouse gas is one of the main causes of climate change.







Renewable or clean energy

People have used nature's energy for thousands of years.

They burned wood to cook food and heat their homes.

They used the power of flowing water. That's how river mills ground grain into flour.

People used the power of the wind to move sailing ships and turn windmills.

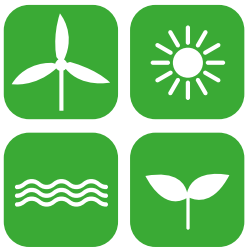
These sources of energy are called **renewable**.

This is because nature keeps providing them.

Today, we still use these energy sources.

But now, we can also use them to produce electricity. Making energy this way releases little or no greenhouse gases.

This makes them better for the climate.



Sources of clean energy

The most common renewable energy sources are solar energy, wind energy, hydropower, and biomass.

Solar energy



The sunlight can be used to make electricity. It can also be used to heat water.

Special solar panels collect energy from the Sun. They can be placed on rooftops or on the ground.

Solar panels produce the most electricity on sunny days.

Wind energy



Wind energy comes from moving air.

The wind turns giant blades called turbines. This turning motion produces electricity.

Wind turbines work best in windy places. They need the wind to blow fast and steadily.

But these tall turbines have a downside.

They can sometimes harm birds and bats.

So we need to be mindful where we put them.

Hydropower



The power of flowing water can be used to make electricity. Water turns large turbines and that generates electricity.



Power plants that use water to make electricity are called **hydropower plants**.

Many large hydropower plants use dams.

A dam is a wall that stops water.

It helps store and control water.



But dams can change river flows. That can hurt fish and other wildlife.

But there is another way. Some small hydropower plants do not need large dams.

They can be safer for fish and wildlife.

Biomass energy



Biomass energy comes from natural materials.

It comes from wood, farm waste or food leftovers.

We can burn these natural materials.

We can also turn them into biogas.



This helps us produce heat, electricity and even fuel.

Using farm or food waste for energy can be useful.

It stops trash from piling up in landfills.



But, we must still be careful.

Avoiding waste is always best for the planet.

We must also share our farmland wisely.

We need land to grow crops for energy.

But we need land to grow food to eat, too.

Which clean energy source is used where you live?



3.2 Using energy more efficiently



We need energy every day. But some energy is wasted.

Lights stay on in empty rooms.

Heat escapes through thin walls.

Cooled air escapes through windows and doors.

This is **wasted energy**.



Wasted energy means more greenhouse gas emissions.

When we use less energy, fewer greenhouse gases are released.

There are two ways to reduce wasted energy.

They are **energy saving** and **energy efficiency.**



Energy saving means using only the energy we really need. It is mostly about how we act.

For example, we save energy when we turn off lights when we leave the room.



Energy efficiency means using energy in a better way.

It means our devices, buildings, and transport waste less.

For example, a traditional lightbulb gives us light. But it also makes a lot of heat.

That heat is wasted energy.



An LED bulb makes much less heat.

It lights everything just as brightly but uses much less electricity.

This is energy efficiency.

Energy efficiency lets us get as much light, heat and cooling as we need. But it uses much less energy to do so.

It also helps us pay less for electricity.



Remember

Switching off a lamp when leaving the room is **energy saving**.

Using an LED lamp is **energy efficiency**.



Appliances

Look around your house.

Many things use electricity. The fridge, washing machine, TV, computer, and lights all need it.



But not all devices are the same. Some fridges use a lot of electricity. Other fridges use much less.

For example, an energy-efficient fridge keeps food cold. But it uses much less electricity to do its job.



Many new appliances have special energy efficiency labels. These labels show how much electricity a device uses.

They help people choose appliances that use less energy and cost less to run.

Buildings



We spend a lot of time inside buildings. Buildings need to help people feel comfortable.

On cold days, they should keep heat inside. On hot days, they should keep rooms cool.

To help with that, we put special layers inside the walls, floors and roofs.



This is called **insulation.**

Insulation keeps homes at a comfortable temperature.

It keeps heat inside during the winter and keeps heat outside during the summer.



Windows can also help with that. Modern windows let sunlight in but stop heat from getting in or out.

When buildings are well insulated, people need less heating and cooling.

This saves energy and money while reducing greenhouse gas emissions.

?

Think about your home or school. Can you spot at least one place where energy is being wasted?

Transport

How we get around is also important.

Some types of transport use less energy than others.



Walking and **cycling** do not need fuel. So, they do not release greenhouse gases while being used.



Buses and **trains** can carry many people at once. This means less energy is used for each person.



Airplanes are fast. But they need a lot of fuel for each flight. This fuel usually comes from oil.



Electric vehicles are becoming more common.

They reduce emissions most when the electricity comes from clean energy. They also make cities much quieter and cleaner.



3.3 Your carbon footprint



Everything we do has an impact on the climate.

Traveling by car, eating, buying clothes, heating or cooling our home, using our phone, watching TV — all of it produces **greenhouse gases**.

The total amount of greenhouse gases produced by our activities is called our **carbon footprint.**



Remember

Carbon footprint — the total amount of greenhouse gases produced by a person, product, building, city, or activity.







Measuring greenhouse gases

A carbon footprint includes different greenhouse gases, not only carbon dioxide.

Some greenhouse gases warm the Earth more strongly than carbon dioxide.
To compare them more easily, scientists use carbon dioxide equivalent, or CO_2e.

CO_2e shows how much carbon dioxide would have the same warming effect.

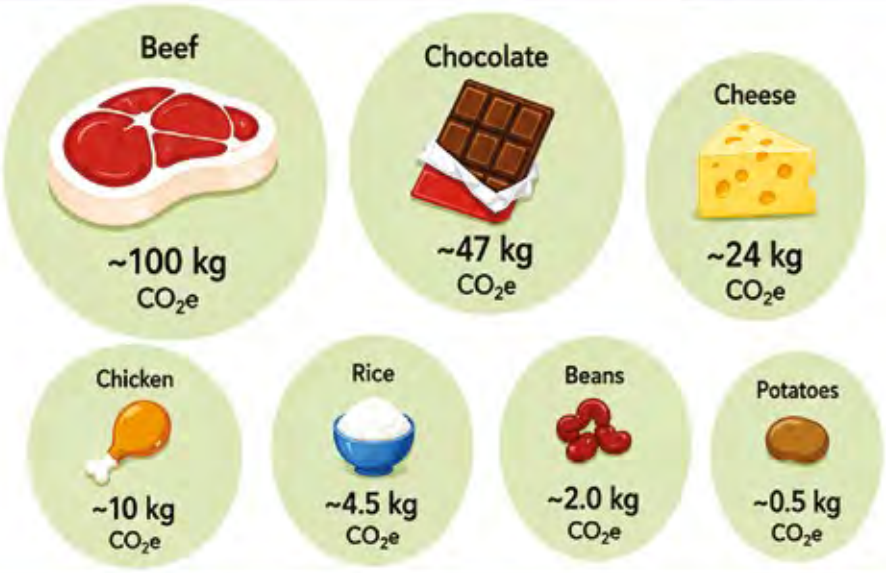
A carbon footprint is usually measured in grams or kilograms of CO_2e.
Not all products or activities produce the same amount of greenhouse gases.

Some have a much bigger impact than others. Look at the table below — some of the results might surprise you.

Examples of carbon footprints

FOOD

Approximate CO_2e emissions for the production of 1 kilogram of food.



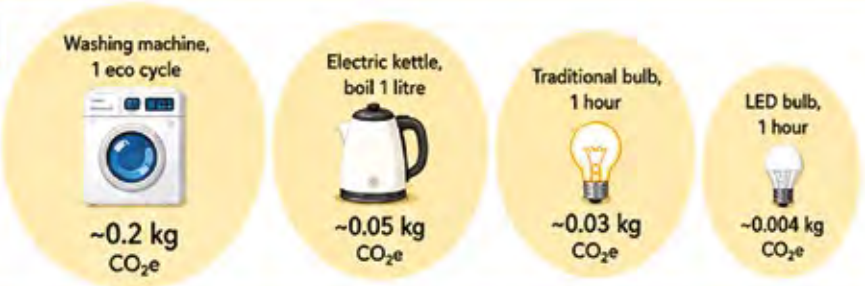
TRANSPORT

Approximate CO_2e emissions per passenger for travelling 1 kilometre.



HOME &ENERGY

Approximate CO_2e emissions from common energy use (per use shown).



GOODS & SERVICES

Approximate CO_2e emissions from the production of typical items (per item shown).



Illustrative estimates. Actual emissions vary by country, production method, transport, and energy source.



Did you know?

A locally grown apple has a carbon footprint of about **10 grams**. The same apple brought from another country by plane is different. Its footprint can be **15 times larger**.

Look at the table above.
Which result surprised you the most?



How can you reduce your carbon footprint?

Reducing your carbon footprint does not require big lifestyle changes.

It starts with small daily habits. When millions of people make similar choices, the effect is powerful.

At home

Save electricity



Turn off lights when you leave a room.

Unplug chargers when you do not use them.

Switch to LED bulbs. They shine just as brightly but use less energy.

Switch off and unplug the TV, computer, or your game console after use.

This stops them from using electricity when you are not using them.





Use less heating and cooling

On cold days, wear warm clothes. Do this before turning up the heater.

Open windows for a few minutes to let in the fresh air, then close them again.

Close doors and windows tightly to keep heat inside.

On hot days, open windows at night. This helps cool the rooms down.

Close windows and curtains in the morning. This keeps the Sun from warming up your house.





Save water

Take a shower instead of taking a bath.
Try to keep your showers short.

Turn off the tap while brushing your teeth.

Do not let the water just run.

Wash dishes in a bowl of water. Washing them under a running tap consumes too much water.

Water plants in the morning or evening. The Sun is not as hot then. This stops the soil from drying up too fast.



Use appliances wisely

Run the washing machine only when it is full.

Use colder water for washing clothes when possible.

This uses less energy for warming the water.



Let hot food cool down first.

But put it in the fridge within 1 hour.

Leaving food out too long lets germs grow.

Very hot food makes the fridge work harder and use more energy.

Before opening the fridge, think about what you need.

This helps you to take what you need.

Then you can close the door quickly.

This keeps the cold air trapped inside.

Food

Eat more vegetables and less meat





Food has a carbon footprint too.

And it can be surprisingly large!

Some foods produce far more greenhouse gases. For example, producing beef uses a lot of land and water.

It also releases methane. This is a very strong greenhouse gas.

Eating more vegetables helps the planet.

You do not have to stop eating meat completely.

Even one meat-free day a week helps.

It makes a big difference for our planet.



Buy local and seasonal food

Try to buy locally grown food. Local food travels shorter distances to reach us. This means fewer greenhouse gases are released.

Choose seasonal food too. Seasonal food usually needs less energy to grow and transport.

Reduce food waste



A very large amount of food is lost or wasted around the world.

Wasted food is a big problem. This means we also waste the water used to grow it.

We also waste the energy used to grow and transport it.



When leftover food turns into trash, it releases greenhouse gases.

You can help reduce food waste!
Plan your meals with your family.
Buy only what you really need.
And use up leftovers when you can.

Compost food scraps



Food that rots in the trash releases methane. It is a powerful greenhouse gas that heats up the Earth. Composting food scraps changes everything!

It is a simple way to help our planet.

Vegetable peelings, fruit skins, and eggshells can all go into a compost bin.

Over time, these scraps break down.
They turn into rich soil for plants.



Think before you buy

Every product is made from materials.

Making it also uses energy and water.

Before buying something new, stop and think:



Do I really need it?

Try to buy only what you truly need.

Choose strong, durable products that will last longer. Buying less saves resources and helps reduce emissions.

Reuse what you have



You can borrow things from friends.

You can also buy second-hand clothes, toys and other items.

These choices reduce waste and the need to make new products.

Take good care of the things you already have.



Repair toys and clothes instead of replacing them.

This saves resources and money.

Use reusable bags, bottles and containers.

They reduce plastic waste and save the energy needed to make new things.

Reusing things helps keep our planet cleaner.



Travel wisely

How we get around matters a lot.

Walk or cycle when you can.

Walking and cycling produce almost no greenhouse gases at all.



They are also good for your health.

Use public transport.

Buses and trains carry many people at the same time.

They usually produce less carbon dioxide per person than private cars.



Travel by train when possible.

Trains usually produce fewer greenhouse gases than airplanes.

For shorter journeys, trains can be a better choice.

?

Which of these actions do you already do?

Which one could you start this week?



3.4 Working together globally



Climate change affects the whole planet.

Greenhouse gases released in one country can affect people around the world.

No country can solve climate change alone.

Countries need to work together and help each other.

Countries are working together



Scientists from many countries work together to study climate change and share information.

Countries also work together to develop clean energy, protect nature, and reduce greenhouse gas emissions.

In 2015, almost all countries agreed to work together. They promised to slow climate change.

This global promise is called the **Paris Agreement**.

Climate change and sustainable development

Sustainable development means growing and building things wisely.

It means keeping the world healthy for the future.

Climate change affects many parts of our lives.



It can affect food, water, health, nature, homes, and jobs.

This is why climate action is connected to sustainable development.

When we protect the climate, we also help protect people and nature.

Everyone has a role



Everyone can help address climate change.

Governments can create climate laws and action plans.

Scientists can study the changing climate. They can invent new, smart solutions.

Businesses can develop and use cleaner technologies.

Communities can support local climate projects. Together they can prepare better for the impacts of climate change.

People can learn and share information. They can inspire others to take action.

Climate change is a global problem. But together, we are a global team!

The most effective solutions happen when people, communities, businesses, scientists, and governments work together.

Why do countries need to work together to address climate change?

What can young people do to help address climate change?

Remember



Individual action matters.

But the most powerful changes happen when individuals, communities, businesses, and governments all work together.

There is still hope.
The solutions already exist.

Every action we take helps protect the planet for future generations.



Climate Box: Easy-to-Read Edition

Climate Box: Easy-to-Read Edition is part of the Climate Box educational programme.

It was prepared to help children and young people learn about climate change in a simple and clear way.

This edition supports the principle of leaving no one behind by making climate education more accessible to different learners, including children and young people who may need simpler language, clearer explanations, and more visual support.

The material explains what climate change is, how it affects people and nature, and what we can do to help protect the planet.

The material can be used by teachers, educators, parents, children, and young people.

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Illustrations used in this material are taken from the Climate Box toolkit, prepared by the project, or used from open sources where permitted.

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With financial support from
the Russian Federation



Climate Box

Understanding Climate Change and Taking Action Together

Easy-to-Read Edition

www.climate-box.com

2026