



# The RHYTHM of NATURE

by Roshan Pokhrel



Room to Read®

Room to Read seeks to transform the lives of millions of children in low-income communities by focusing on literacy and gender equality in education. Working in collaboration with local communities, partner organizations and governments, we develop literacy skills and a habit of reading among primary school children, and support girls to complete secondary school with the relevant life skills to succeed in school and beyond. Learn more at [www.roomtoread.org](http://www.roomtoread.org).

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1

# Hello

Hello, friends!

Step out into the garden.

Have you ever visited a jungle?

What do you see?

There are all kinds of birds, butterflies, lizards,  
plants, and more.

Feel the cool breeze in the air.

Taste the water drops from the sky.

Enjoy the cozy heat of the sun.



# 2

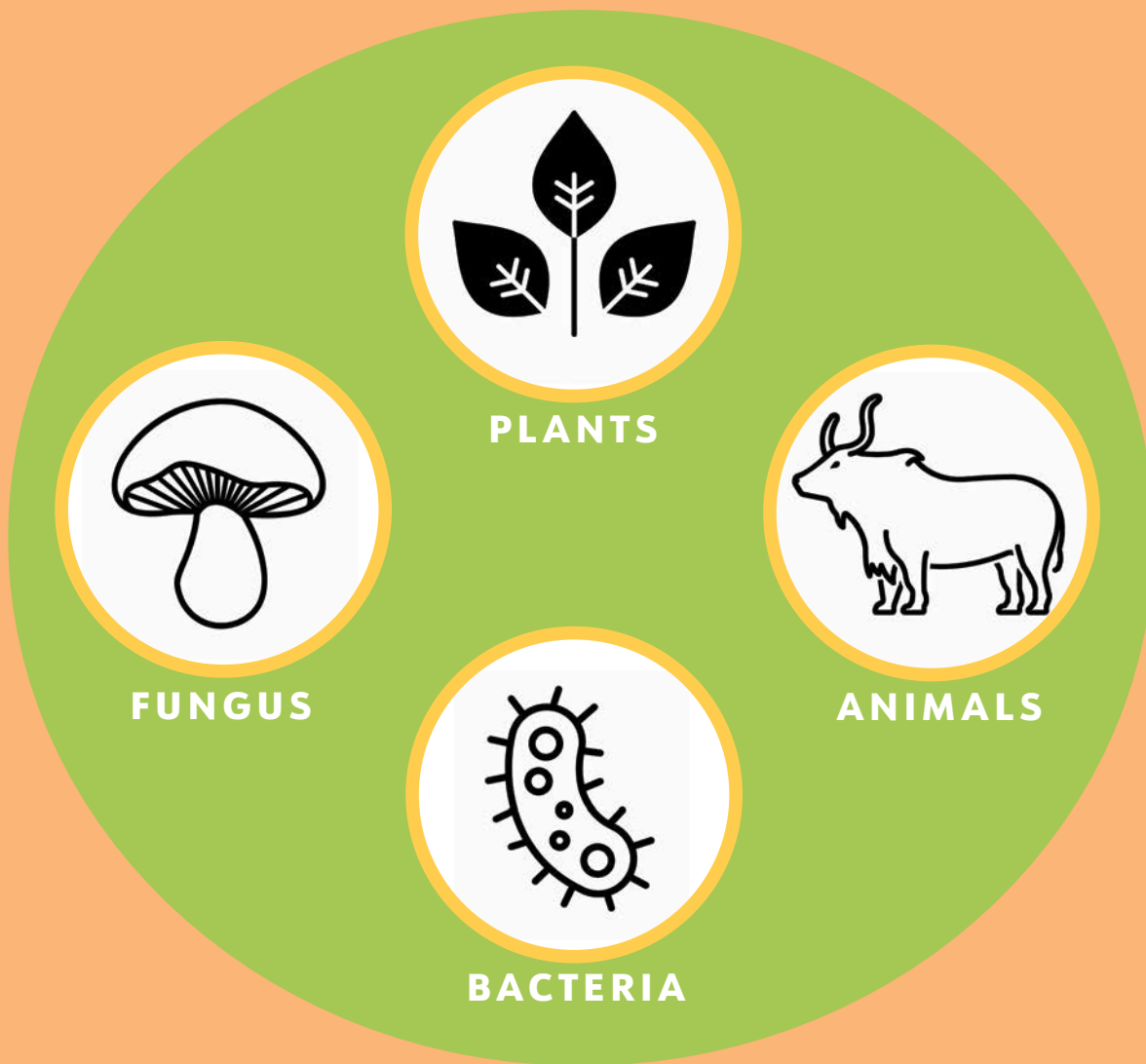
## Ecosystem

Animals and plants have life.  
They are living things.

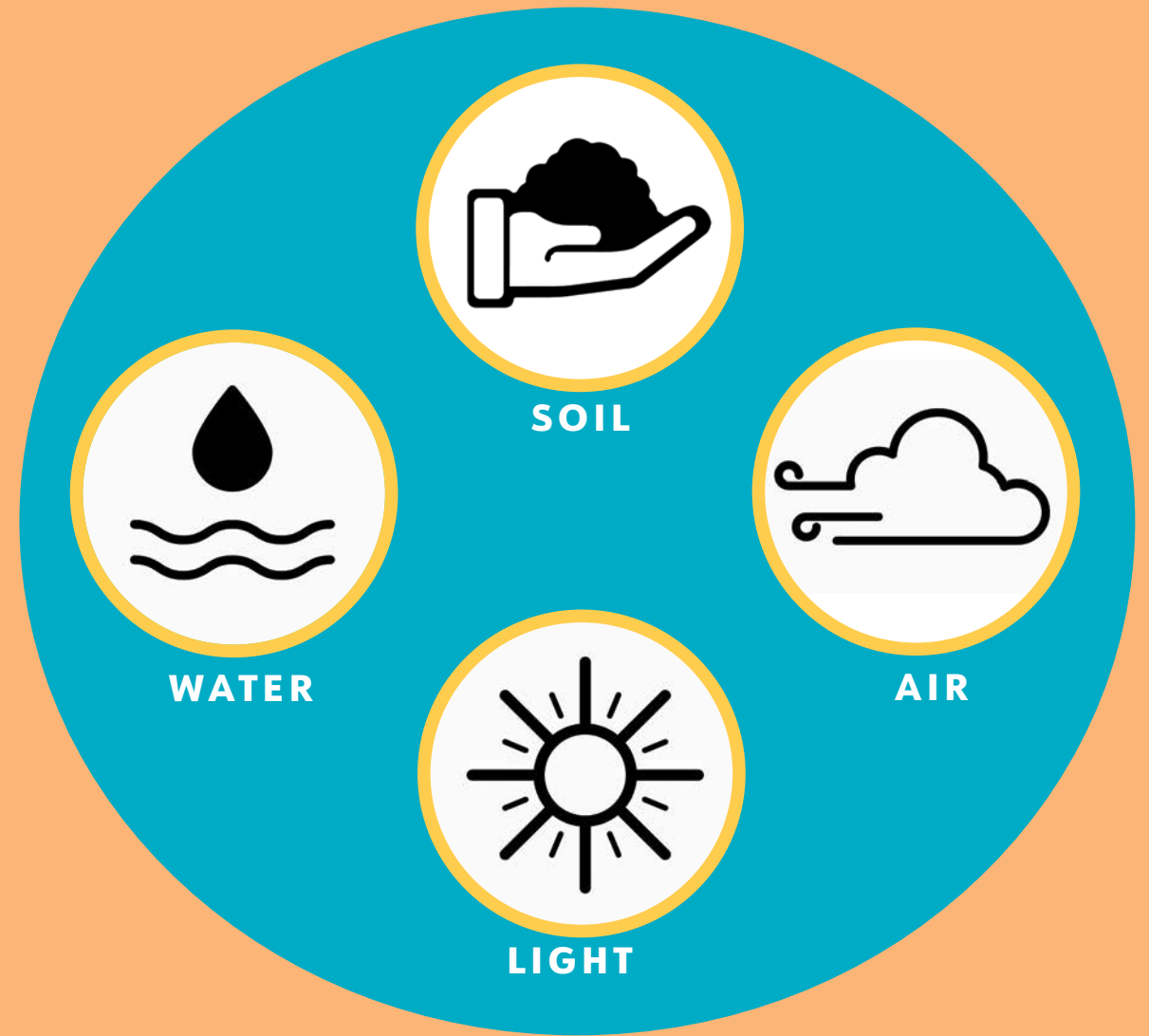
Air, water, light, and soil do not have life.  
They are non-living things.

The biotic and abiotic parts make a balance.  
This balance of nature is called an **ecosystem**.

Let's see how it works.



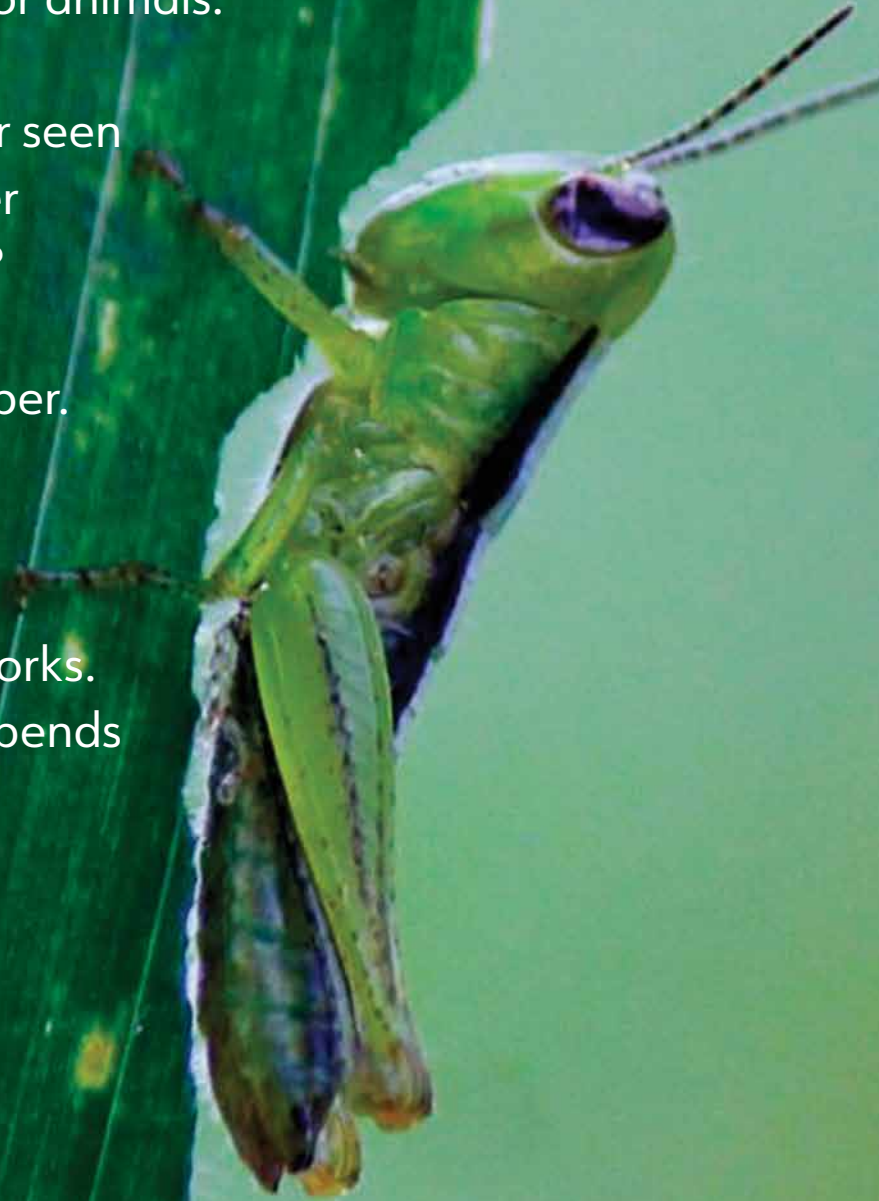
**Biotic:** Living things



**Abiotic:** Non-living things

Sunlight and water help plants make their own food. Plants are then the main food source for animals.

Have you ever seen a grasshopper eating a leaf? A lizard eats the grasshopper. An owl eats the lizard. This is how an **ecosystem** works. One thing depends on another.



If you look closely at a pond, you will find an ecosystem there. Under a rock, you will find another ecosystem. Isn't it amazing?



We have 118 types of ecosystems in Nepal. But we have no ocean or desert ecosystems in Nepal. Why?

That's right.

We don't have any oceans or deserts.



# 3

## Biodiversity

Don't you feel cool when you see a beautiful butterfly?



Have you ever heard the sweet sound of a cuckoo bird?

Or seen the strut of the peacock's monsoon dance?



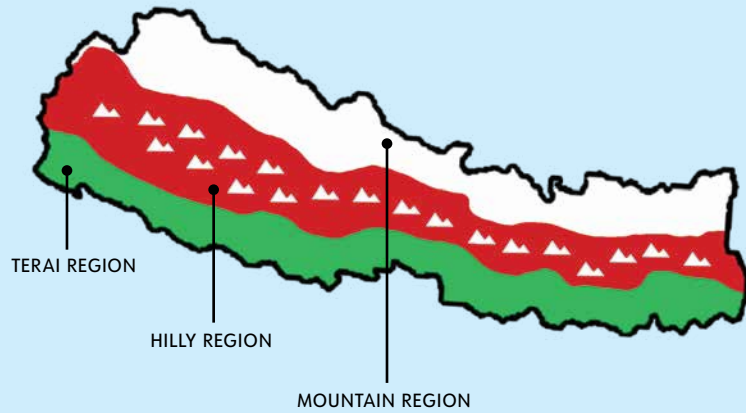
What about beautiful blooming marigolds? Aren't they delightful?

Every creature on this planet plays an important role. They make this earth beautiful.

All creatures have an equal right to live.

The variety of animals and plants in any place is called **biodiversity**. The variety of life on the earth is biodiversity.





Do you know: Nepal only occupies 0.1% of the globe. Yet we have 284 species of flowering plants, around 832 species of birds, and more than 600 species of butterflies.

Nepal is a small country, but she is rich in biodiversity. Travel across the humid plains of the Terai. The mid-hills have beautiful and fertile valleys. Climb the highest mountain peaks on earth. Each has its own world of plants and animals.

## Terai Region

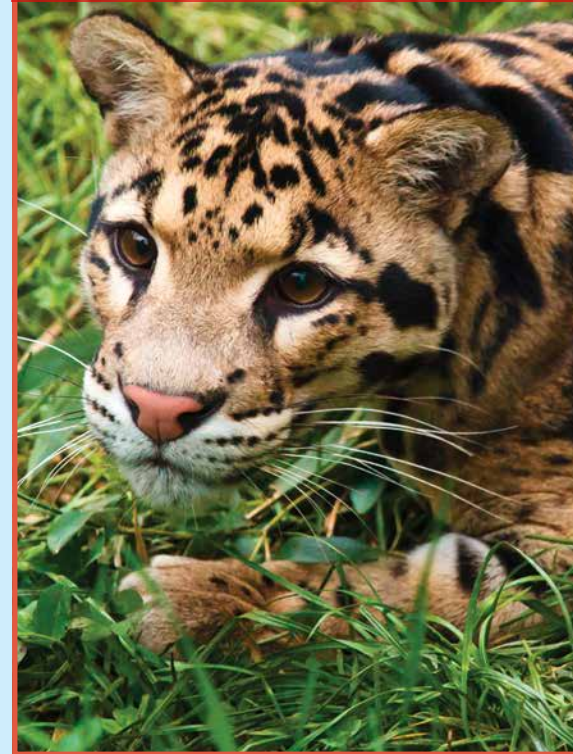


LEFT: The oak (sal) tree is an evergreen tree. In Nepal, its leaves are used to make local plates and vessels called "tapari," "doona," and "bogata."

BELOW: The Greater One-Horned Rhino has large folds of skin that resemble armor.



## Hilly Region



ABOVE: Rhododendron is the National flower of Nepal. There are around 1000 species.

LEFT: The clouded leopard's fur is dark grey or ground-colored with black spots on its head. They are found in mid-hills and at the bottom of the Himalayas.

## Mountain Region



LEFT: Spikenard plants are rare. This medicinal plant has a strong smell and is also called Sugandhawal in Nepali.

BELOW: The Himalayan Tahr is a copper-brown mountain goat. Females and the young are light brown. Males are darker.





## Why Biodiversity Matters

Why do we care about biodiversity?  
The simple answer is, we need it to exist.

Have you seen a tiny honeybee roaming from flower to flower? They **pollinate** flowers so we get **crops**, vegetables and fruits.

**Did you know:** Bees are vital to biodiversity. Fruits and vegetables would not exist without pollinators. But honeybee numbers are falling fast.



What if we had no more tigers, lions, or leopards? The number of deer would increase. They would eat all of the greenery.

All creatures work for themselves. They also unknowingly work for each other. We rely on this balance in nature.





# 5

## Is Everything Fine?

The simple answer is, no. The biodiversity of Nepal is under threat.

Many beloved animals of Nepal are in danger. Our beautiful birds are at risk. Plants are also suffering.

What is the main threat to biodiversity?  
Let's find out more.



Pygmy hogs used to play happily in dense tall grasslands with shrubs and young trees. But they are now supposed to be **extinct** in Nepal.



The spiny babbler bird is only found in Nepal. Just a few remain today.

The beautiful Danphe is the national bird of Nepal. It is at risk of becoming extinct.



The Butea Gum Tree is a very useful medicinal tree. Its existence is **endangered**.





# 7

## Climate Change

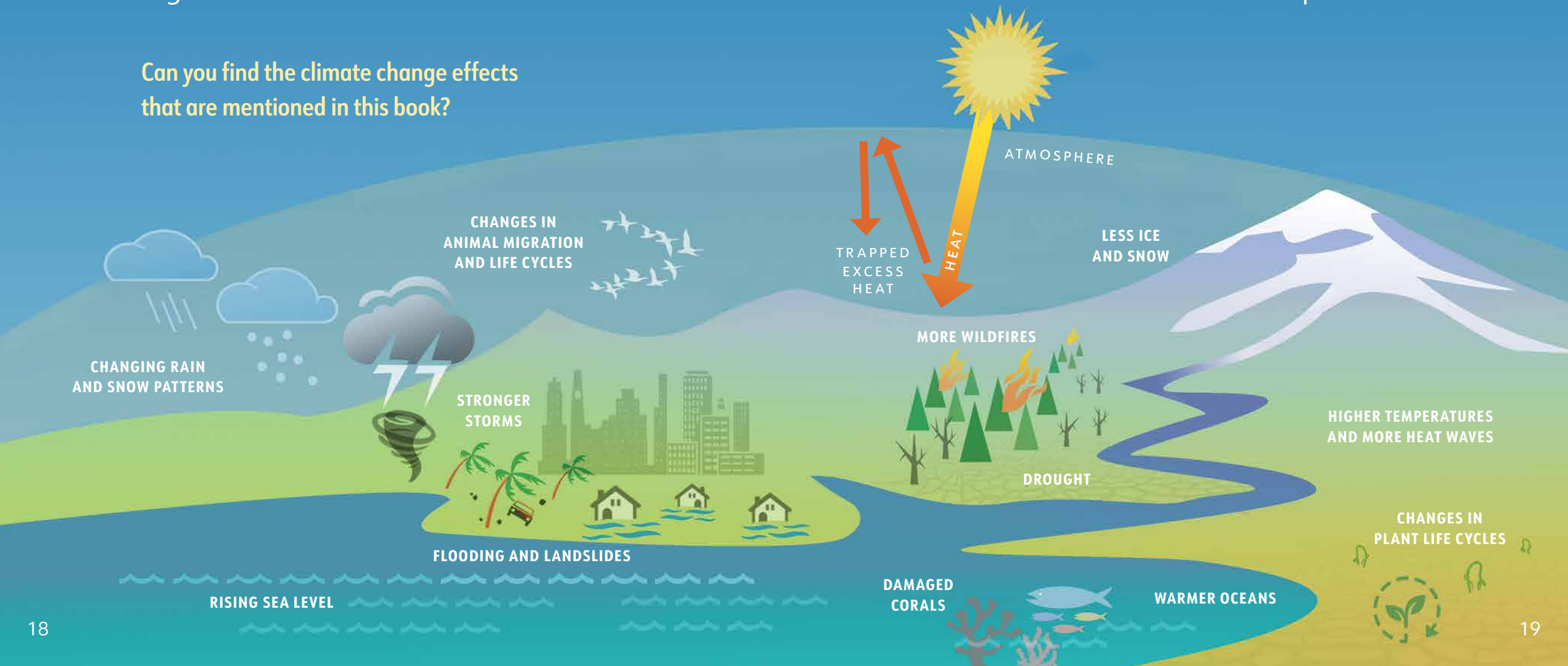
The earth's climate has always changed. But human actions have caused a rapid rise in global temperatures. This is called climate change.

People have burned **fossil fuels** to make energy for hundreds of years. This puts a gas called carbon dioxide into the air.

Cutting down forests also releases carbon dioxide. Carbon dioxide traps extra heat on the planet.

The rise in temperature, or global warming, affects weather all over the world. Many plants, animals and humans are struggling because of these new weather patterns.

Can you find the climate change effects that are mentioned in this book?







Tigers keep cool by seeking shade or mud. As the climate warms, they spend more time trying to keep cool. With less time to browse for food, they can go hungry.

How does climate change affect biodiversity?

Most plants and animals live in areas with specific climate conditions. When these patterns change, they cannot always adapt. They can even become extinct.

Climate change affects every part of the planet. It is a crisis for us all to face together.

Ibisbills breed on shingle banks along the braided channels of high Himalayan rivers. Changing river flows and landslides threaten their **habitats**.



Red pandas live on bamboo grass. This plant is diminishing due to climate change.



The greater one-horned rhinoceros loves to swim and eat **aquatic plants**. Forest fires and flooding threaten their habitats.





# 7

## What Can We Do?

Are you worried that you are just a small kid?

You can make big changes with little steps.  
Here are ways to help at home.

Shhh. Listen carefully. Nature has a rhythm.  
All parts of the world are connected, including humans. For the sake of the future, we have to protect nature. You, too, are the future.



Turn off the fan or air conditioner when you are not using them. Tackle climate change by using less energy.



Re-use plastics, paper, and metal. This saves the energy used to dispose of garbage.



Don't burn garbage. This adds pollution to the air that warms the planet. It is bad for our health, too!



Plant trees in your local area. They will absorb carbon dioxide and make the air cool and fresh.



# Glossary

**Aquatic Plants:** Plants that grow in water

**Biodiversity:** The variety of animal and plant life in any environment

**Climate Change:** The long-term changes in the earth's weather pattern

**Crop:** A plant or plant product that is grown and harvested

**Ecosystem:** A community or group of living things and non-living things that live or interact with each other in a specific environment

**Endangered:** When there are so few of an animal or plant left that the entire species is in danger of vanishing forever

**Extinct:** When a species is completely gone and not a single one survives

**Habitat:** The natural home of animals

**Pollinate:** The process of taking pollen from the male part of a plant to the female part of a plant to make baby plants, or seedlings