

## Our common home

We must urgently renew our relationship with our living planet.

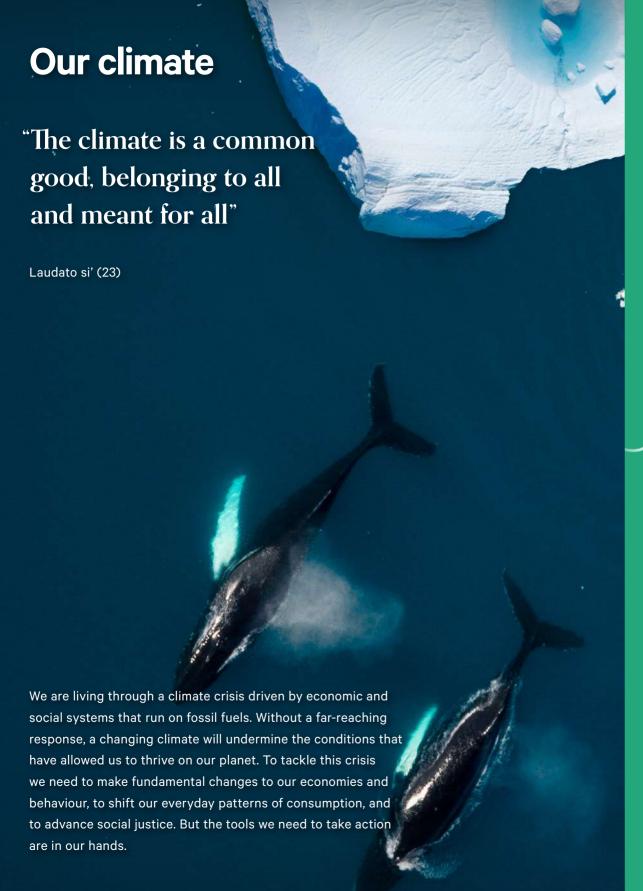
While the scale of this challenge can seem daunting, the good news is that the answers are already at hand – it is only up to us to put them into action.

The following pages summarize evidence on issues that are at the heart of our current predicament. The aim is to inform, inspire hope, and stimulate debate and action.

This guide is the result of a collaboration between the scientific and spiritual communities, between the Stockholm Environment Institute and the Dicastery for Promoting Integral Human Development. It sets out essential facts and solutions on key topics, along with advice on how communities can respond.

It is inspired by Pope Francis' second encyclical, Laudato si': On Care for Our Common Home, which explores our ecological crisis and its roots in over-consumption and current models of economic development.

These questions are a priority for Pope Francis, the Catholic Church and all believers, the scientific community, and all citizens, as we answer the call to protect and regenerate our common home.



# The fossil fuel economy is the main cause of global warming

Our planet provided a stable climate that allowed humanity and nature to flourish for thousands of years.
But since the start of the Industrial Revolution in the 18th century, we have emitted more and more greenhouse gases into our atmosphere that warm the climate by trapping the sun's heat.

These gases are produced by burning coal, oil and gas to power industry and transport, and to supply our homes and buildings with heat and electricity. We also release greenhouse gases through intensive farming and by cutting down forests.



## Climate breakdown is a severe threat to our security and the natural world

Droughts, storms and floods are already more frequent and severe.

Shortages of food and water are causing hunger and conflict. Sea levels are rising: 150 million people currently live on land that will be below the high-tide line by mid-century.

Some of our most biodiverse environments, such as coral reefs, have been damaged by warming to a point from which they can't recover. And the world's poor, who are least responsible for climate change, bear an unfair burden of the impacts – though all of us will be affected.

## What needs to change?



With swift action to rapidly eliminate greenhouse gas emissions, we can limit temperature rise and prevent its most dangerous outcomes. In 2015, nearly 200 countries signed an agreement in Paris to limit temperature rise to 1.5 degrees Celsius, but we have not acted fast enough. The coming decade will be critical.

Nothing less than a complete change in our economies and societies is required. We must:

- halt deforestation
- change how we consume food and how we farm our land
- produce power without fossil fuels through massive shifts to clean energy.

#### Let's take action



What action can we take to defend life and stop global warming? Can you buy renewable energy, divest from fossil fuels, or add more plant-based foods to your diet?



Do you know what climate targets your national and local governments have committed to?

Can you call for stronger action and advocate for climate justice?



Those who make decisions must understand that climate change is a top priority. How can we raise our voices and ensure decision makers hear our concerns?



# Biodiversity is the foundation for human survival and progress

Healthy ecosystems regulate the climate, supply clean water, provide medicines, clean up pollution, pollinate our crops, and provide vital natural resources. Countless livelihoods directly depend on the services ecosystems provide. Nature is a priceless source of inspiration for art and learning, as well as for cultural and spiritual experiences.

Yet as industry, agriculture and fisheries reach farther into once wild landscapes, such as forests, wetlands and seas, they are destroying the richness of the living world.



# Since 1970, global wildlife populations have declined by two-thirds

In the same period, plant and animal life in freshwater has fallen by 84 per cent. Bees and other pollinators are in serious decline, directly threatening supplies of important staple foods, fruits and vegetables.

Without action on climate and deforestation, the Amazon rainforest could collapse into a dry and scrubby landscape within 50 years. Our soil is also under serious threat: without biodiversity in soils, the ecosystems they support cannot survive. Healthy ecosystems also protect against the impacts of climate change, such as extreme heat and storm surges.

## What needs to change?



With immediate action to conserve and restore ecosystems we can reverse the damage to nature. We need to protect and restore habitats on land and at sea. The land rights of local and indigenous peoples, who have deep and diverse knowledge on the wise use of natural resources, must be strengthened.

We need to change how we produce and consume food. Restorative agricultural practices can both provide a haven for nature and help tackle climate change. Eating less meat and dairy and cutting food waste will reduce pressure on ecosystems. And tackling the climate crisis will also prevent further loss of biodiversity.

## Let's take action



Laudato si' challenges us to have a new reverence for all life (207). But our lack of reverence has led to ecological crisis. How can we redeem our relationship with creation?



Laudato si' (92) reminds us that every act of cruelty towards any creature is contrary to human dignity. Let us resolve to end animal cruelty, especially in the livestock industry.



What can we do to reverse the destruction of natural ecosystems? How can we influence decision makers to make this a priority?



## Access to clean water is a growing challenge

More and more people lack clean water for drinking, washing, and irrigating crops. Sometimes this is because there simply isn't enough water, or because it is overused, wasted or polluted. Water use has grown at more than twice the rate of population increase in the last century, and more regions are reaching the point where there won't be enough water for people's future needs.

Climate change is also causing shortages and droughts in some areas and flooding in others.



By 2025, two-thirds of the world's people could face water shortages

Around 4 billion people suffer severe water scarcity for at least one month each year – especially in poorer countries and in rural areas. Fastgrowing cities around the world also face severe water shortages, and often divert freshwater away from rural lands. Water pollution from pesticides and chemical fertilizers is a major problem, while wasteful use of water and global warming also threaten supplies.

Currently 3.6 billion people live without safely managed sanitation, and 1.7 billion lack even basic sanitation. This exposes them to cholera and other deadly waterborne diseases.

## What needs to change?



Water must be treated as a scarce and precious resource. We need to use less of it and use it more efficiently. Education on conserving water is crucial for helping people change the ways they use it.

Wasteful irrigation practices must be tackled. We must reduce pollution in rivers, groundwater and seas and cut overuse of chemical fertilizers and pesticides in agriculture.

We can save resources by recycling rainwater and wastewater, and by protecting forests we can also protect watersheds and rivers. And because global warming is a cause of water shortages, these issues need to be tackled together.

#### Let's take action



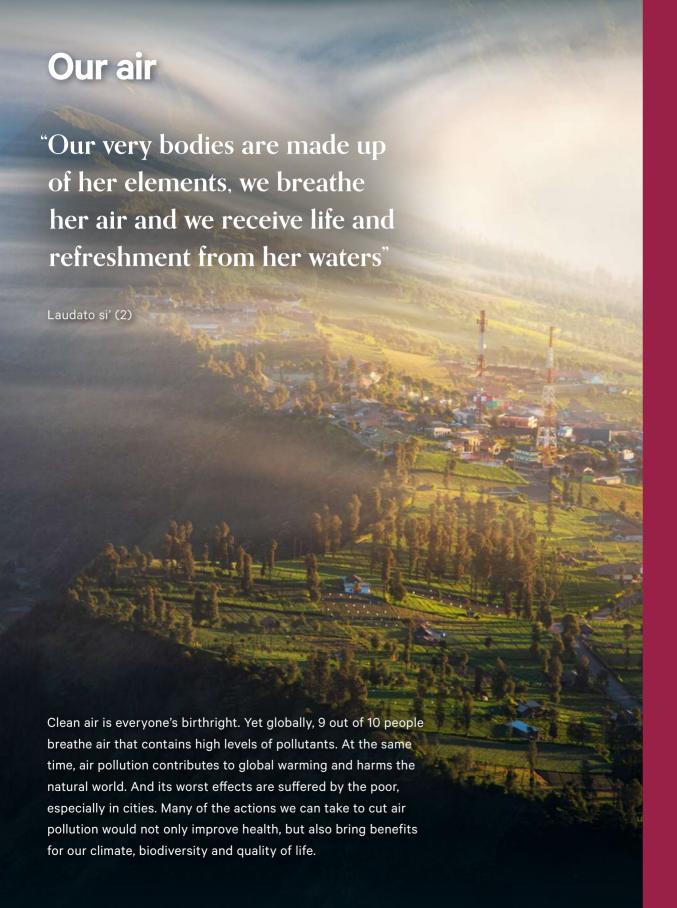
What does the Bible say about water, and how do we use it in our Christian worship, rituals and sacraments? Do you realize water is holy and treat it with respect?



Water is life-giving. How can we stop wasting water and protect this precious gift in our daily lives?



How can we build community resilience through water-saving practices? Examples include installing low-flow fixtures in households, and planting buffer zones along coasts and rivers.



#### Outdoor air pollution kills more than 4 million people each year

The main types of outdoor air pollution are smog and soot. These are released from burning fossil fuels in motor vehicles and in industry, and to generate power. In fast-growing cities, open burning of waste is often a major problem.

Breathing the particles released by these activities is a health risk for all, causing heart disease, stroke and lung cancer. But people in low- and middle-income regions are especially exposed. Some air pollutants are also major contributors to global warming.



Air pollution in the home is also a leading cause of disease – especially among the poor

At least 3 million people die every year from indoor air pollution – mainly from smoke from charcoal, wood and dung used for cooking.

When people burn these fuels for cooking or to heat their homes, dangerous pollutants are released, such as small particles and carbon monoxide, which damage the health of all members of a household, especially women and children who are often at home the most. Respiratory illnesses, cancer and eye problems are among the most common illnesses caused by indoor air pollution.

## What needs to change?



Technologies are available to reduce emissions from industry, and we need to change our systems for transport, energy and waste management. In cities, better public transport and walking and cycling networks, as well as switching to electric engines, all cut air pollution from vehicles. Shifts away from fossil fuels to solar, wind and water power are crucial.

Open burning of waste can be avoided by reducing, separating and recycling it. And people need access to affordable and clean cookstoves and renewable sources of energy to provide heat and light in their homes.

## Let's take action



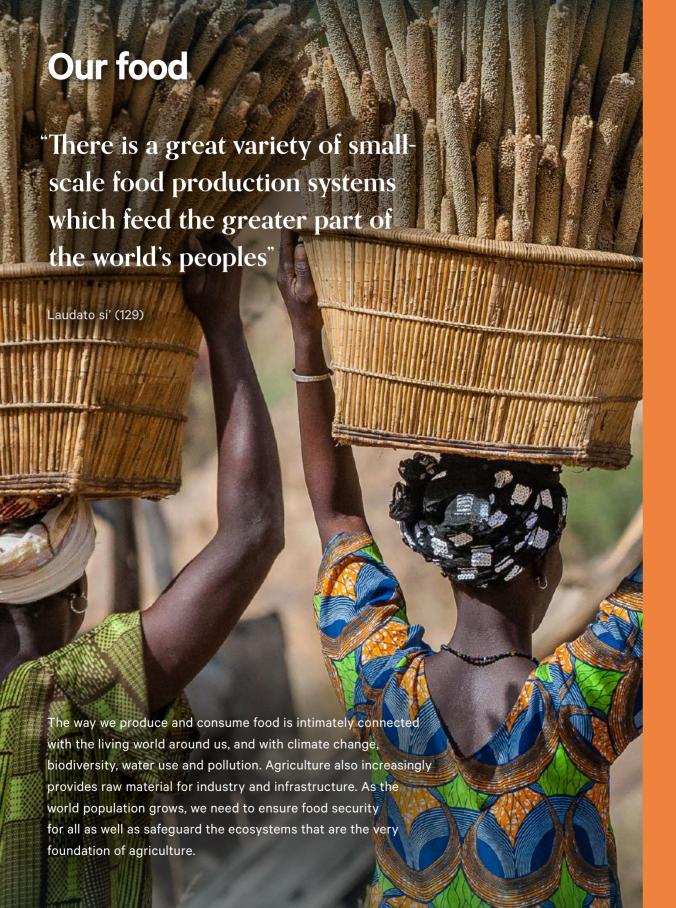
In the Bible, the Holy Spirit is often linked with breath and life. Take a deep breath and feel the air filling your lungs. Be aware of all who share this air with you.



How is the air quality where you live? What are the main sources of air pollution? Pay attention to the most vulnerable in society, such as children and the infirm.



Consider how our lifestyles contribute to air pollution. Commit to personal changes to reduce emissions, like replacing car trips with public transport, walking and cycling.



## Intensive agriculture has reshaped the planet

The growing demand for food in the second half of the last century led to massive changes in agricultural practices around the world. This new model of industrial agriculture was largely driven by mechanization, new breeds of crop, and synthetic pesticides and fertilizers. Initially, these methods brought large increases in yields for some, but in many ways the system is now unsustainable.

Intensive agriculture has had widespread and devastating environmental and social impacts.

Many unique foods and crop varieties have been lost, and with them bonds of culture in which food plays a vital role.



## Agriculture in crisis, people and planet at risk

Acute hunger is rising in more than 50 countries, while a third of all food goes to waste. Intensive agriculture largely relies on fossil fuels; it has turned rich forests into farmland, and is responsible for around one-third of greenhouse gas emissions.

As intensive farming methods erode and deplete fertile soil and surrounding biodiversity, they undermine the ability of future generations to grow adequate food. As local and indigenous farmers are displaced, we are fast losing the deep reserves of skill and knowledge they hold.

## What needs to change?



A hotter world will harm crop yields and ecosystems, so we must act on climate change. Avoiding food waste would ease pressure on land and water and feed more people. Choosing diets with less dairy and meat would also reduce pressure on land while cutting greenhouse gas emissions.

In only a few years, ecological farming methods can restore degraded land, provide space for nature, protect soils and draw down carbon. Small farms still produce the bulk of the world's food and this diversity is vital: local and indigenous producers hold unique knowledge that is key to the future of agriculture.

## Let's take action



The Eucharist reminds us of the deep relationship between the Earth, one another, and God. As we share the Bread of Life, how do we respond to the fact that so many go hungry?



We live in a world of both hunger and food waste. Can you resolve to stop wasting food? Are you willing to make sacrifices to change your diet so it is more planet friendly?



What needs to change in how we produce and distribute food? What can we do to help bring about these changes? Can you start composting and buy more from local producers?



#### By 2050 we would need three planets to support current lifestyles

Since 1970 we have been consuming more than the planet can sustain.

What's more, 80 per cent of the world's resources are used by only 20 per cent of the population.

Patterns of production and consumption in the industrialized world strip the Earth of its natural riches, such as forests, fish, minerals and water. The wasteful ways we produce and consume goods are also highly polluting and harm the health of people and the living world, while contributing to global warming.



#### Each year around 12 million tonnes of plastic enter our oceans

Plastic waste is an especially serious symptom of over-consumption. There may now be more than 5 trillion pieces of plastic – both larger pieces and so-called microplastics – floating in our seas, which have devastating effects on marine species and biodiversity. Microplastic particles find their way into our food, water, and even bloodstreams.

Half of all plastics ever produced have been made in the last 15 years, and production is growing. At each stage of its life cycle, plastic can harm our health, through exposure to plastic particles themselves and the chemicals used in their manufacture.

## What needs to change?



We need to move beyond consume-and-throwaway systems towards circular approaches that work within ecological limits. This means reusing, recycling and sharing materials and products.

Governments must do more to make companies accountable for the impacts of their activities and supply chains. They also need to help consumers make sustainable choices, for example through targeted taxation and requirements for clearer labelling on goods. Households and firms should also take responsibility for how they dispose of their waste.

More fundamentally, we must find alternatives to GDP-based economic growth, which is the central driver of increasing consumption of goods and services.

## Let's take action



Do you feel caught up in a culture of compulsive consumerism? What changes could you make in your lifestyle to better care for others and creation?



Every product and service has both an ecological footprint and a social footprint. By choosing our purchases carefully and responsibly, we can protect both people and planet.



How can you use citizens' power to spur governments and the private sector to reduce ecological impacts and move towards zero waste?



## The environment and social justice cannot be separated

The overuse of natural resources by industrialized nations means that poorer countries have paid a heavy price for the development of the richer world. Climate change is a clear example: richer countries are most responsible for it, but it is the poor and marginalized who are suffering the worst impacts.

Biodiversity and agriculture are also tied to justice and equality. As industry and intensive agriculture have advanced, the land rights of peoples who have long been stewards of our most biodiverse environments – small-scale farmers and indigenous peoples – have often been ignored.



## We are all affected – especially the marginalized

Climate impacts, such as sea-level rise, extreme weather and lower crop yields, will affect the poor the most. By 2050, more than 140 million people in Latin America, sub-Saharan Africa and Southeast Asia could be forced to migrate because of the climate crisis.

Everyone has the right to clean air and water, yet the poorest in rapidly growing cities are very often deprived of both and are most exposed to pollution. And young people will have to live with the consequences of choices made today, so they need a greater role in decision-making now.

## What needs to change?



At the same time as eliminating greenhouse gas emissions, we must adapt to climate change impacts and build community resilience, especially for the most vulnerable. We can restore and conserve ecosystems, build infrastructure to protect against storm surges and sea-level rise, and develop drought-resistant crops.

As we shift away from a fossil-fuel economy we must also ensure a "just transition", which offers security and opportunity to those who stand to lose from change. And advocating strongly for ecological justice is vital for building a resilient, equitable world.

## Let's take action



Pope Francis urges us to "hear the cry of the earth and the cry of the poor" (Laudato si', 49). Let us pray and act for justice on all fronts for both people and planet!



How can we help people, especially the young, face a challenging future with confidence, competence and hope? How can we ensure that marginalized groups have a strong voice?



The climate emergency is an opportunity for us to come together as one. How can we help those affected by ecological crises? What programmes or policies can address long-standing injustice?

# "Many things have to change course"

Pope Francis, Laudato si' (202)

We do not stand separate from the planet we share with other life; we are intimately related to it and so are also responsible for its care. This truth must be recognized in order to meet the challenges of this critical point in history. What is at stake is nothing less than our children's rights to a safe climate, clean water and air, sufficient food, physical security, and the wonders of a planet rich with life.

We cannot overcome the twin crises of climate change and biodiversity loss, nor overcome pollution, resource degradation, poverty and injustice, without transforming outmoded patterns of behaviour, culture and economics. We must move beyond an exploitative relationship to our planet towards one based on stewardship and care. While such a transformation has already begun, the gravity of the situation demands greater action.

People and communities must join together to ensure that those who make decisions and hold the most responsibility and power understand that action on these issues is a priority for the people they serve, and that they are held accountable.

As much as this is a moment of crisis, it is also one of opportunity: we can renew our relationship with the planet so that we not only sustain ourselves, but also thrive and flourish.

## A prayer for our earth

All-powerful God. you are present in the whole universe and in the smallest of your creatures. You embrace with your tenderness all that exists. Pour out upon us the power of your love, that we may protect life and beauty. Fill us with peace, that we may live as siblings, harming no one. O God of the poor. help us to rescue the abandoned and forgotten of this earth, so precious in your eyes. Bring healing to our lives, that we may protect the world and not prey on it, that we may sow beauty, not pollution and destruction. Touch the hearts of those who look only for gain at the expense of the poor and the earth. Teach us to discover the worth of each thing, to be filled with awe and contemplation, to recognize that we are profoundly united with every creature as we journey towards your infinite light. We thank you for being with us each day Encourage us, we pray, in our struggle for justice, love and peace.

Pope Francis, Laudato si' (246)

A joint initiative of the Holy See and the Stockholm Environment Institute

DICASTERY FOR PROMOTING
INTEGRAL
HUMAN
DEVELOPMENT



The Stockholm Environment Institute is an international non-profit research and policy organization that tackles environment and development challenges.

The Dicastery, a department of the Vatican, assists the leadership and members of the Church to promote integral human development and care for our common home.

Explore the booklet at sei.org/ourcommonhome

In Laudato si', Pope Francis calls us to develop a "loving awareness" of this home we share and to act on the values we hold dear (Laudato si', 220).

The Laudato si' Action Platform is inspired by the integral ecological vision of Laudato si'. The platform empowers communities, institutions and groups to become the change that they want to see in the world in the current era of planetary emergency. Learn more about what you can do to bring about

Visit the Laudato si' Action Platform: laudatosiactionplatform.org

positive change.

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