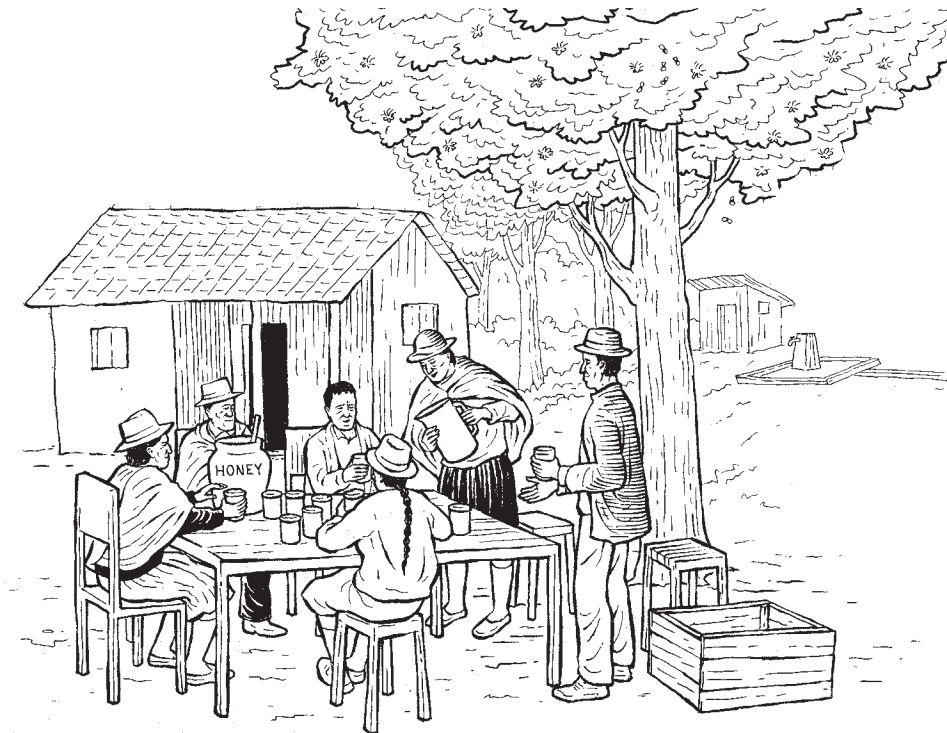


3 Protecting Natural Resources for All

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Protecting Natural Resources for All



How we use natural resources affects our health and the health of our communities. Because everyone uses natural resources, we all have some part to play in protecting, preserving, and sharing these resources.

Unfortunately, natural resources are not shared equally among everyone. The poor use the least, and the rich use the most. Powerful corporations, governments, and militaries often take a large share of natural resources. Even within a single community, wealthier people use more natural resources than poor people. Often the poor are forced to fight among themselves for what is left. This unfair distribution of resources leads to serious health problems for the poor.

We can talk about conserving natural resources all day long, but so long as inequality continues, environmental health will be a right only for the few who have wealth and power and not the many who need these resources for daily survival. As the Indian leader Mahatma Ghandi said, “There is enough for everyone’s need, but not for everyone’s greed.”

Inequality: Cause and Effect of Environmental Health Problems

Many environmental health problems relate to:

- **scarcity** (not enough) of essential things we need for a healthy life, such as clean air and water, healthy soil and forests, safe and comfortable shelter, and safe working conditions.
- **excess** (too much) of harmful things we do not need, such as trash, toxic chemicals, **pollution**, and **junk food**.



In the story from Ecuador (see Chapter 1), health problems were caused by the scarcity of basic necessities such as clean water, toilets, and trees. In a story from Bhopal, India (see Chapter 4), health problems were caused by an excess of toxic chemicals.

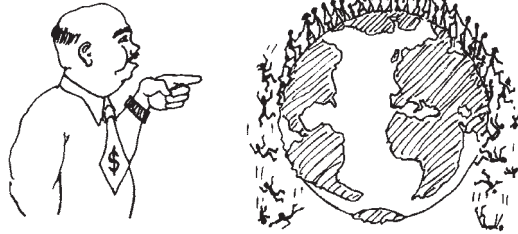
In each story, improving environmental health depended on people preventing the conditions that caused both a scarcity of essential resources for life and an excess of pollution. By protecting our communities and our natural resources, we are protecting the future for our children, and our children's children.



Too many people, too few resources?

The amount of water, trees, minerals, and other natural resources on Earth is limited, while the number of people using these resources is growing rapidly. But the number of people is not the real problem. The problem is how these natural resources are distributed and used. Any time one person or a group of people uses more than their fair share of resources, or causes an excess of pollution, this imbalance can lead to environmental health problems for others.

The rich man's explanation of poverty and environmental destruction: Too many people, too little land and resources.



The poor people's explanation of poverty and environmental destruction: Unfair distribution of land and resources, too much in the hands of too few.



Some people believe the best way to prevent harm to our environment is to reduce the number of people. This way of thinking leads to 'population control' programs. These programs have failed to improve the lives of people anywhere because they do not address the root causes of environmental destruction, poverty, and poor health. When families have the resources they need to live with health and dignity, many choose to have fewer children. Only when communities, governments, and development programs plan for the survival of children, and the improvement of the social, political, and economic status of women, will the so-called "population problem" be solved.

But reducing the number of people in the world will not address the problem of the unequal use of resources. The best way to reduce the harmful effect people have on the environment is for the rich to use fewer resources, and to use them in a way that conserves resources for the future and does not create an excess of pollution. By first changing the behavior of those who use the most, we can begin to make sure there will be enough for a healthy life for everyone.

Corporate control is bad for our health

The health crisis on the coast of Ecuador (see Chapter 1) was caused by a big corporation that paid local people to clear the forest. Not only did people lose the trees that kept the soil healthy and protected them from storms, they also lost important resources for daily survival such as food, fuel wood, medicines, fiber, and other basic needs. When a resource like a large forest cannot be put back, it is the same as if it had been stolen – from nature, from communities who rely on it, and from future generations.

When corporations control resources — whether timber, oil, water, seeds, or the labor power of people themselves — they gain profit for themselves, and have little reason to protect or improve the lives of the people who need those resources to survive. Corporations may provide short-term jobs or income, but if their interest is to export local resources, when those resources are gone they will leave too. And people will be left in deeper poverty than before.



Building community institutions

Fair and equal control of natural resources means that all people have a voice in decisions about how natural resources are used and shared. Fair and equal control can take many forms, but all are based in education and organization of people to work together for change.

Environmental health is always a community issue. People must work together, as a community, to protect the resources they share in common. To work together over the long term, people usually form some sort of community group or institution.

When the cholera epidemic began to spread in Ecuador, Salud para el Pueblo organized public health committees to raise awareness and get people to act. To better respond to the cholera epidemic, the public health committees offered knowledge (how to make rehydration drink) and services (building new toilets and water systems). They also helped to restore and strengthen their communities by maintaining a health clinic, and providing health education and training at schools, parks, and in people's homes. And they inspired other people to form groups and institutions, such as the environmental health promoters and the recycling program.

Salud para el Pueblo also worked with organizations from outside their communities to provide money, engineering skills, medicines, and other resources. They made sure these resources were used and managed by the villagers themselves. The communities were also involved in the planning and decision making about expanding the program.



When each village formed a committee of health promoters, they were able to decide which health problems were most important to resolve.

When governments do not provide for the basic needs of their people, the people must build institutions for themselves, as Salud para el Pueblo did, to make sure the future is healthy. Often, when communities organize, the government then responds by fulfilling its responsibilities to the people.

The different resource needs of men and women; of workers, farmers, foresters, and ranchers; and of industries, land developers, and others, can bring conflict into your community and your organization. Sometimes problems can be particularly difficult, such as balancing short-term needs for income and long-term health needs. Building strong community institutions often takes so much time because recognizing these differences and trying to settle these conflicts is difficult. Making long-term health a goal, and finding ways for everyone to work toward meeting this goal together, can help resolve difficult conflicts and build strong institutions that protect the common good.

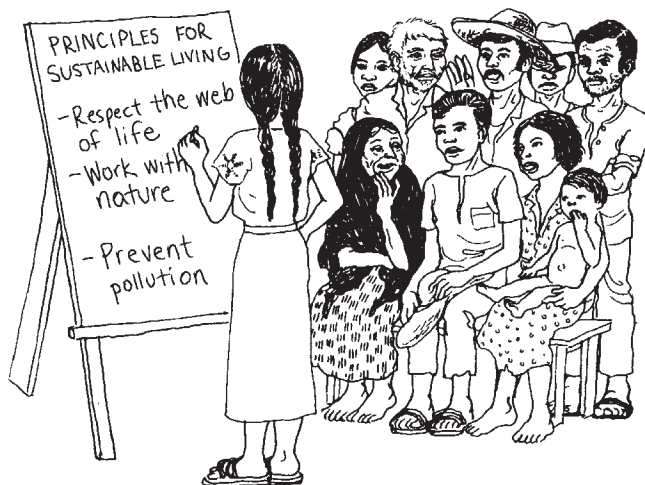
Making Our Communities Sustainable

To be **sustainable**, an institution, natural resource, or community needs to meet the daily needs of people now while planning for the needs of future generations. All around us, and throughout this book, we can see examples of sustainable and unsustainable systems, from community institutions such as health clinics or recycling programs to natural resources such as forests, fields, and springs.

One of the greatest challenges facing people today is trying to meet all of our needs without harming the environment that feeds, houses, and clothes us, that gives us water, energy, and medicine, and is the very source of our survival.

Politicians and companies often speak of their commitment to “sustainable development.” But in most cases, the word “sustainability” is only used to increase their profits or political power. In the end, they take away our healthy food, clean air and water, and safe livelihoods, while giving us more pollution, deforestation, and illness.

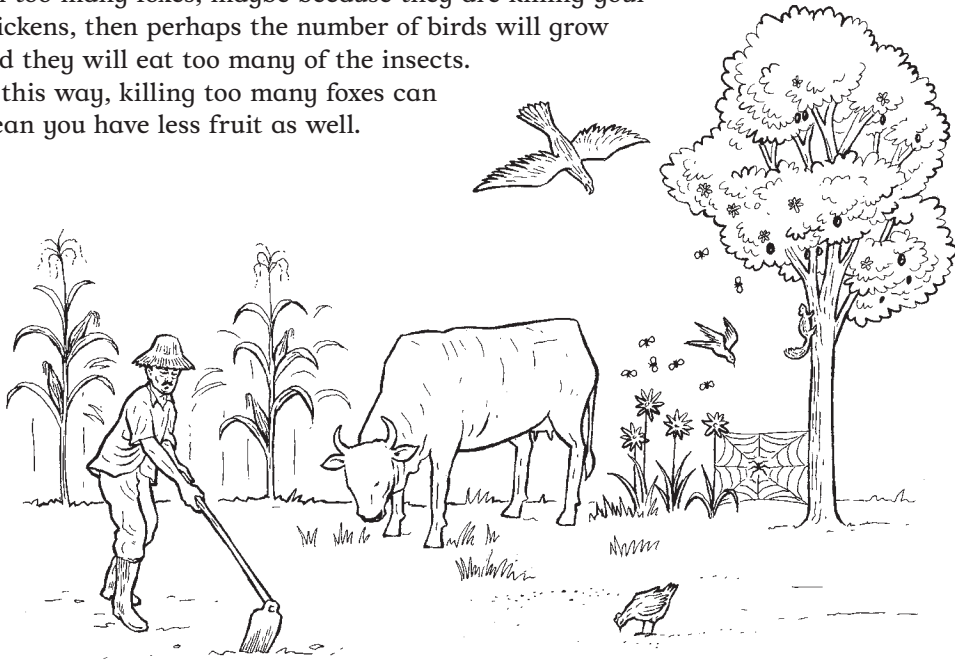
Some principles of sustainability and methods that communities have used are described in the following pages. We hope that this information will help you to organize sustainable projects in your own communities.



Respecting the web of life

The natural world is made up of a great variety of living things. The scientific word for the great number of different kinds of people, plants, animals, and insects that live on Earth is **biodiversity**. Long before scientists gave this name to the variety of living things, many people taught their children about the web of life. Just as a spider's web is made strong by the many threads connecting it, biodiversity depends on the web of life connecting all living things.

For example, people gather fruits to eat, which have nutrients that keep them healthy. These fruits grow on trees and bushes **pollinated** by insects. Without pollination, the fruit will not grow. Birds eat the insects, and the birds are hunted by foxes. A balance in the web of life means that there are just enough flowers, insects, birds, and foxes for all to live in the area. If you kill too many foxes, maybe because they are killing your chickens, then perhaps the number of birds will grow and they will eat too many of the insects. In this way, killing too many foxes can mean you have less fruit as well.



An important part of protecting human health, now and in the future, is protecting the web of life.

Unfortunately, the world is facing a great loss of biodiversity, with many plants and animals disappearing every year. Biodiversity is valuable in itself, but it is also valuable in the many ways this web of life protects human health.

Damage to the web of life leads to new illnesses

Loss of biodiversity means there are fewer kinds of plants and animals, and the natural balance among plants, animals, and people is disturbed.

This can cause new illnesses. Here are 2 examples of how a loss of biodiversity from **deforestation** caused new illnesses:

- Where people cut down tropical forests for farms and towns in Africa, there have been outbreaks of leishmaniasis, yellow fever, and sleeping sickness. These are diseases spread by insects that thrived when water pooled instead of being absorbed by the soil, and the animals that eat the insects lost their forest homes.
- When large numbers of trees were cut down in North America, the number of white-footed mice grew because their food supply increased and the number of animals that hunted them got smaller. These mice carried an illness called Lyme disease, which then spread to people.

Plant medicines depend on biodiversity

Most medicines are made from plants. When forests are cut down, and rivers and wetlands dry up, we lose many of these plants. We also lose traditional knowledge of how to use these plants for healing.

Protecting biodiversity and the web of life protects our cultures and our healing traditions.

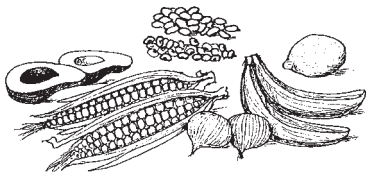


People who use medicinal plants often cultivate and care for them, protecting both biodiversity and traditions.

A healthy diet depends on biodiversity

Good health depends on eating a variety of foods, such as fruits, vegetables, grains, and wild foods such as berries, fish, and game. When we

lose biodiversity, we lose many of the foods we rely on for a healthy diet. Then entire communities are faced with the health problems that come from poor nutrition.



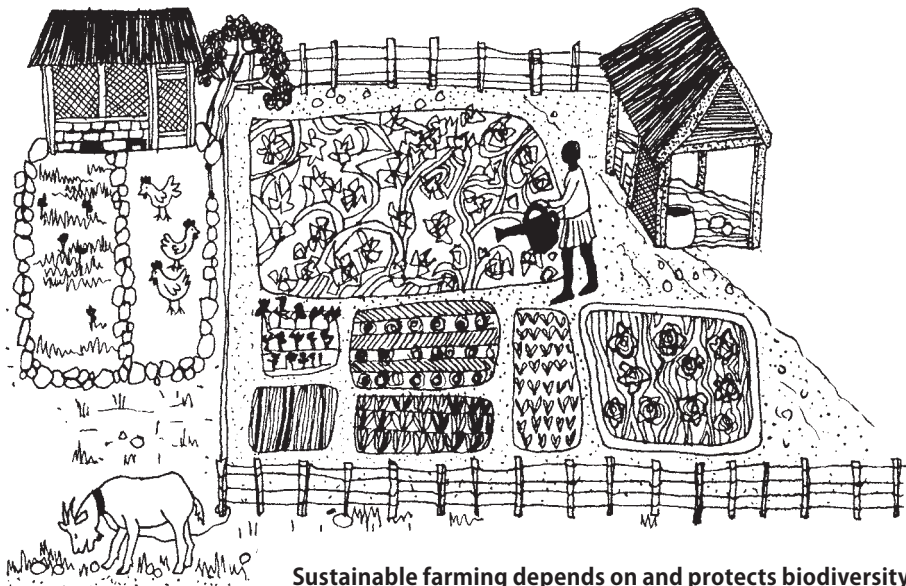
Planting a variety of crops promotes both biodiversity and a healthy diet.

Gloria, the health worker with Salud para el Pueblo, understood the web of life. Because honey bees need flowers to make honey, and flowering trees need bees to help them bear fruit, planting trees and raising bees helped the community produce food and restore the web of life at the same time.

Biodiversity improves crop yields

All food crops, including rice, maize, and wheat, were cultivated over thousands of years from wild plants. These crops still depend on insects and other animal life to grow well.

Industrial farming, with its use of big farm machines and toxic chemicals, promises bigger crop yields. But these chemicals kill helpful plants and insects, and damage the soil. If production increases, usually it is for one crop only, and only for a short time. After several years, there is less food and fewer varieties of the foods necessary for good health.



Sustainable farming depends on and protects biodiversity.

Farms can produce more crops and suffer fewer pest problems with sustainable methods. These methods promote healthy insect and animal life, enrich soil with natural fertilizers, and protect land with trees and plants (see Chapter 15). A diverse crop yield provides improved nutrition and better health for all.

Biodiversity protects water resources

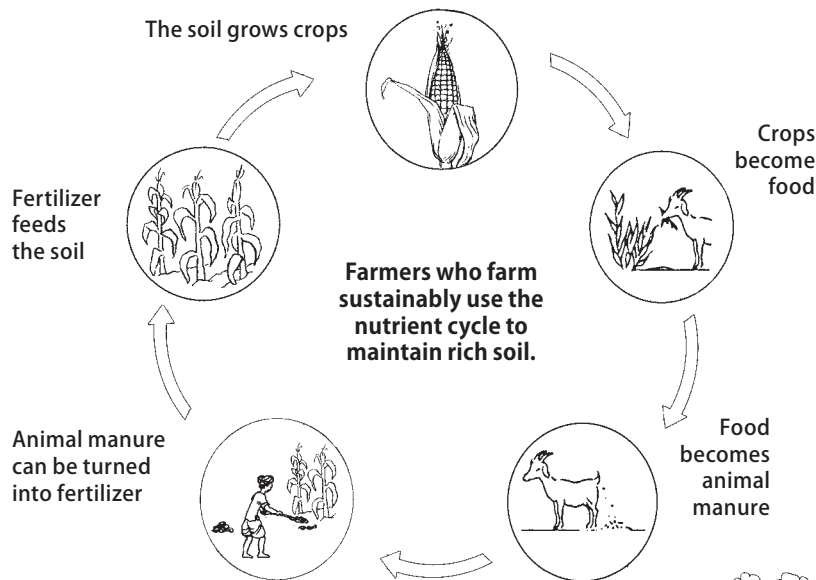
Both deforestation and industrial farming lead to a loss of soil moisture and streams drying up in the dry season. Chemical fertilizers and pesticides run off industrial farms and pollute rivers and lakes.

Biodiversity protects communities

Many different livelihoods depend on access to natural resources. When those resources disappear, poverty grows. In farming areas, industrial farming increases debt for some and landlessness for many others.

Restoring the web of life

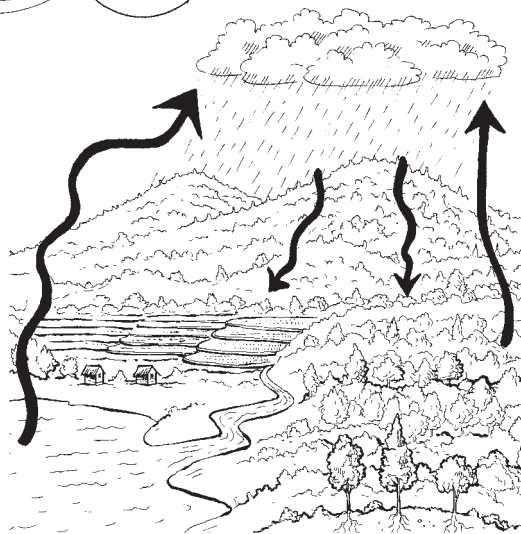
In the web of life, when a living thing dies, it affects many others, including people. In the story in Chapter 1, when the people of Manglaralto lost their forest, they also lost food sources and income. When the storms struck, they lost their homes as well. When they started replanting trees, the villagers found they were doing more than preventing erosion or producing honey. Their work to restore the land to a state of health brought back many plants and animals important to the health of their communities.



Working with nature

In nature, nothing is wasted because everything has a use or a purpose. One way nature reuses resources without waste is by working in circles, or cycles.

Unfortunately, natural cycles have been disrupted by people and industry, and this has led to serious environmental health problems. One example of what happens when natural cycles are disrupted is **global warming** (see page 33).



Clouds make rain, sending water to the earth...
Water evaporates to form clouds....

How we can copy natural cycles

Environmental health promoters in the Philippines have a saying:

What comes from the earth must return to the earth.



By understanding the importance of returning to the earth what comes from the earth, we can copy nature and protect our natural resources and health. The cycles we create in our homes, communities, and factories are small steps we can take toward improving environmental health. For example, composting, and reusing or recycling glass bottles and tin cans, are ways to follow nature's example by creating a cycle instead of a waste dump.

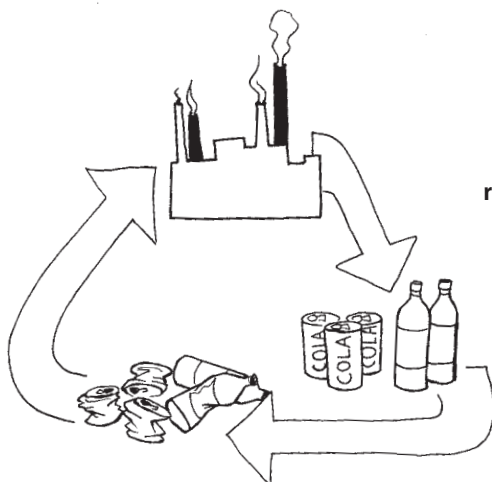
How industry can copy natural cycles

Environmental health promoters in the Philippines also have another saying:

What comes from the factory must return to the factory.



Industry causes the most toxic pollution. But even industry can learn from natural cycles to reuse energy and materials in a process called **clean production**. The first step would be for industry to take back all the waste it creates. If wastes, such as toxic chemicals, cannot be recycled, industry must safely dispose of them, and reduce and eventually eliminate their use. If industry is to have a place in a sustainable future, it must be based on prevention, precaution, and the right to health for all, not on the right to profit from danger, dumping, and disease.



By using fewer resources, and recycling and reusing what they do use, industry can reduce the harm it causes to our environmental health.

Harm from pollution

Pollution is the harm to people and the environment caused by an excess of poisonous or toxic substances from peoples' activities, especially wastes from industry, transportation, and agriculture. Toxic pollution travels through the environment in our air, water, and soil.

Most pollution comes from things we use and are exposed to in our daily lives. The most common ways people are exposed to toxic pollution include:

- **smoke from fires**, especially when plastic is burned. We breathe in toxic smoke, and toxic ash pollutes our drinking water and our crop land.
- **smoke from factories** that pollutes air, water, and soil.
- **chemicals** used in factories, mining, and oil drilling and production that are dumped into water sources, and also pollute the air and land.
- **pesticides** used and handled near food, water sources, and at home. When sprayed, they travel far through the air, causing great harm.
- **chemicals** in batteries, paints, dyes, and from making electronics that harm the people who work with them.
- **motor exhaust** from automobiles that pollutes air, water, and soil.

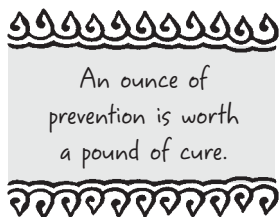
Toxic pollution causes serious harm to people, plants, and animals not only where it is released but also far from the source. Protecting ourselves from the harm caused by pollution and toxic substances is an important part of sustainability (see pages 42, 368, 410, 440, and Chapters 14, 16 and 20 to 23).

The precautionary principle

In their search for new products and more profit, corporations have developed thousands of chemicals that never existed in nature. Most of these chemicals have not been tested to prove they are safe. Still, they are used in products sold to us every day. Even when people think some of these chemicals might be harmful, if they cannot prove beyond a doubt that a chemical is dangerous, it cannot be kept off the market — or out of our bodies.

Some community leaders and scientists use what they call the **precautionary principle** to guide decision making. The precautionary principle says:

If there is reason to believe that something may cause harm, even if we do not know for certain, then it is better to avoid it than to risk doing harm.



This principle is the opposite of what most countries have now. Now you have to show that something is harmful before it can be stopped. We call it the Dead Bodies Principle.

Climate change

Dramatic changes in the climate are occurring all around the world and causing more frequent natural disasters and serious problems for people's health. In some places there are more floods and severe storms, and in other places there is less rain and more drought.

This situation, called **climate change** or global warming, is really a group of environmental problems including deforestation, increased pollution of our water and air, and loss of wildlife. These problems cause small increases in the planet's temperature that lead to big, permanent changes in the climate.

Changes in the climate cause disasters that affect people everywhere. Severe storms and floods destroy homes and crops, drought leads to famine, and insects and animals spread disease when they move to new places because of changing weather.

Causes of global warming

The environment has a natural ability to absorb pollution. But if too much pollution is put into the environment, the earth cannot absorb it. Over the last 100 years, when people started to remove and burn large amounts of **fossil fuels** such as oil and coal, the amount of pollution released into the environment increased faster than ever before. This is one of the causes of global warming. Also, some chemicals invented for manufacturing pollute the air and cannot be absorbed. They too contribute to global warming.

At its root, climate change, like almost all environmental health problems, is the result of unfair, unequal, and unsustainable use of resources. Countries that are now wealthy such as the United States achieved their current standard of living by polluting the air and using up resources from other parts of the world – starting climate change. When poor countries began to follow the same path of overconsumption and pollution to improve their standards of living, it became clear that this type of development would lead to global environmental disaster.

But abandoning this type of development does not mean that poor countries cannot continue fighting to improve the standards of living in their communities. A new kind of development is possible and needed, based on equality and health for all people, not only the rich. We need to stop depending on fossil fuels and toxic chemicals and start using clean energy and clean production processes (see Chapters 20 and 23). We must all participate in transforming our societies, and those with more resources should contribute more to that process.

