

# CAN OUR PLANET SURVIVE?

## Reasons for Hope



# Awake!®

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You do not need to be  
a scientist to know that  
something is disastrously  
wrong with our planet.  
Our fresh water, our oceans,  
our forests, and even our  
air are gravely damaged.  
Will our planet survive?  
Learn why you can have  
reasons for hope.

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CAN OUR PLANET SURVIVE?

# FRESH WATER



LIFE on earth would be impossible without water, especially fresh water. In fact, the largest component of all living things is water. Lakes, rivers, wetlands, and underground aquifers provide drinking water for humans and animals and allow us to irrigate our crops.

## The Threats to Fresh Water

Most of our planet is covered in water. However, according to the World Meteorological Organization, “only 0.5% of water on Earth is usable and available freshwater.” Although this relatively small amount of fresh water should be enough for life on earth, much of it is either becoming polluted or becoming inaccessible as a result of increased demand and climate change. Experts predict that within 30 years, five billion people could have inadequate access to fresh water.



## Our Planet—Designed to Survive

The earth has natural processes that prevent our water supply from disappearing. Also, soil, aquatic life, and even sunlight cooperate to purify our water. Consider some of the evidence that points to our planet as one that is designed to survive.

- It has been shown that soil can efficiently rid water of many contaminants. In wetlands, certain plants have been known to remove nitrogen, phosphorus, and pesticides.
- Scientists have identified physical and biological processes that purify water

contaminated with naturally occurring organic waste. The contaminants are diluted in flowing water and broken down by microorganisms.

- Freshwater clams and mussels can extract some potentially harmful chemicals from water in a matter of days—and perhaps do so even more effectively than water treatment plants can.
- Our planet keeps water trapped in a constant cycle known as the hydrologic system. This cycle, along with other natural processes, prevents water from escaping our atmosphere or otherwise disappearing.

### DID YOU KNOW?

## Soil—Nature's Freshwater Filter

Soil has been shown to remove metals, toxic chemicals, organic waste, and other contaminants from water that flows down through the ground. By the time the water settles in bedrock aquifers, it can even be safe to drink.

### Physical Filtering

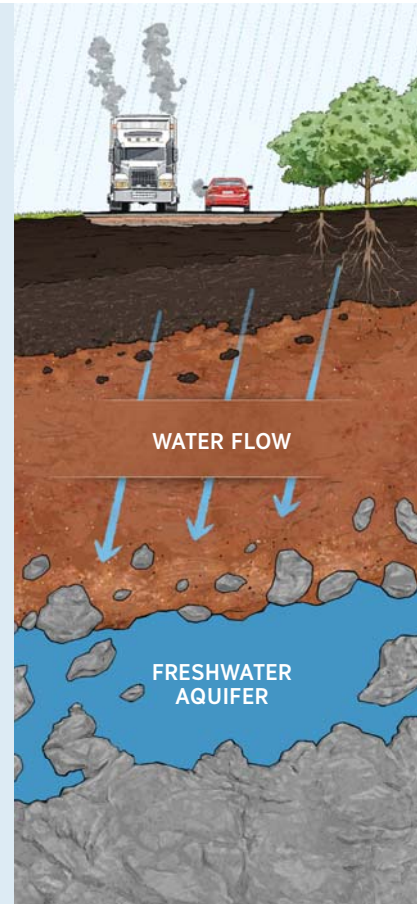
Sand and rock particles act like a fine sieve, catching some contaminants.

### Biological Filtering

Microorganisms living in soil can neutralize substances that would otherwise be toxic to humans. Some bacteria can even break down toxic oils into carbon dioxide and water.

### Chemical Filtering

Soils with a slight electric charge can capture toxic chemicals that have the opposite charge. Negatively charged clay particles, for instance, can remove positively charged particles of corrosive ammonium from water.



## What Is Being Done

Experts recommend conserving water whenever possible. To reduce water contamination, they advise repairing any oil leaks in our vehicles and not flushing unused medicines down the toilet or pouring toxins down the drain.

Engineers have come up with impressive methods of modernizing desalination (the removal of salt from salt water). The goal is to increase the amount of accessible fresh water.

But more is needed. Even desalination seems to be unrealistic as a large-scale solution because of its high cost and because it requires excessive amounts of energy. In a 2021 report about water management, a United Nations source stated: “Globally, the current rate of progress needs to be doubled.”

## Reasons for Hope —What the Bible Says

**“God . . . draws up the drops of water; they condense into rain from his mist; then the clouds pour it down; they shower down upon mankind.”**

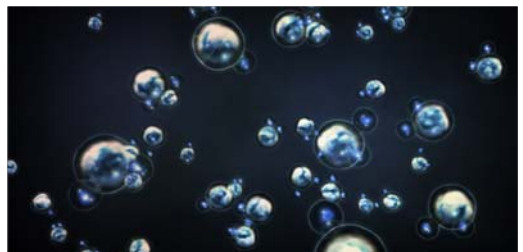
—JOB 36:26-28.

God created natural cycles to protect earth’s waters.—Ecclesiastes 1:7.

Consider: If the Creator engineered processes to purify fresh water, might he be able and willing to repair the man-made harm to this vital resource? See the article “God Promises That Our Planet Will Survive,” on page 15.



By repairing oil leaks and properly disposing of toxins, we help keep our freshwater sources clean



**LEARN MORE.** Water has unique properties that make life possible. Watch the video *The Wonders of Creation Reveal God’s Glory—Water* on [jw.org](http://jw.org).

CAN OUR PLANET SURVIVE?

# OCEANS



Georgette Douwma/Stone via Getty Images

OCEANS supply not only much of the food we eat but also many ingredients we need to have to make medicine. Our oceans generate more than half the world’s oxygen, and they absorb carbon emissions from human activity. In addition to that, oceans regulate our climate.

## The Threats to Our Oceans

Climate change threatens coral reefs, shellfish, and other marine life. Scientists predict that almost all reefs—which support at least a quarter of all known life in the sea—could be at risk of dying within the next 30 years.

Experts estimate that up to 90 percent of seabirds may have eaten plastic, and ocean plastic is thought to kill millions of sea animals every year.

“We have taken the ocean for granted,” stated UN Secretary-General António Guterres in 2022, “and today we face what I would call an ‘Ocean Emergency.’”



## Our Planet—Designed to Survive

Oceans and the life within them are designed to keep themselves clean and healthy when not overwhelmed by human pollution. The book *Regeneration: Ending the Climate Crisis in One Generation* explains that when a part of the sea is protected from human industry, “the innate regenerative capacity of oceans is allowed to operate unhindered.” Consider a few examples:

- Tiny organisms called phytoplankton consume and store carbon dioxide—the main gas believed to cause global warming. Phytoplankton alone store almost the same amount of carbon dioxide as

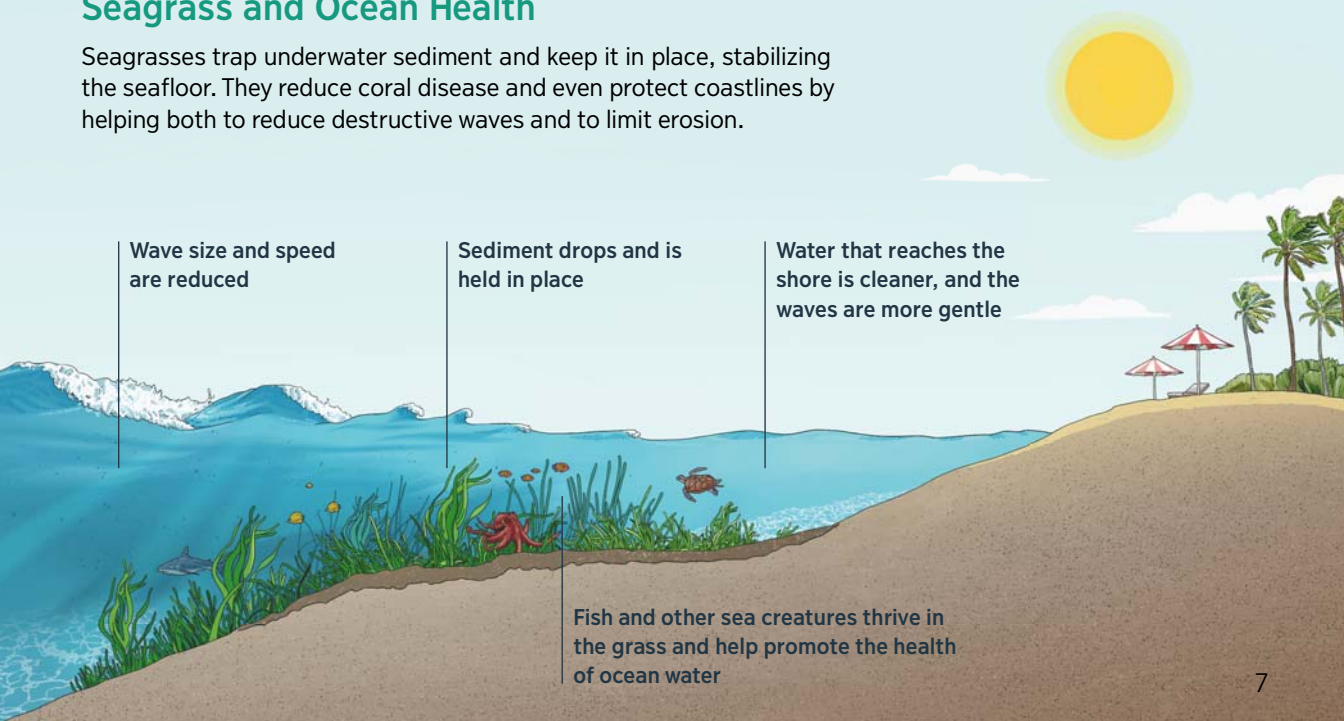
that stored by all the trees, grasses, and other land-based plants on earth combined.

- Microbes feed on waste products of fish, which would otherwise pollute the ocean. Then the microbes themselves become food for other marine creatures. This cooperative arrangement “keeps the ocean clean and clear,” according to the Smithsonian Institution Ocean Portal.
- Many ocean creatures use their digestive system to transform acidic ocean waters—which harm corals, shellfish, and other creatures—into healthier alkaline waters.

### DID YOU KNOW?

## Seagrass and Ocean Health

Seagrasses trap underwater sediment and keep it in place, stabilizing the seafloor. They reduce coral disease and even protect coastlines by helping both to reduce destructive waves and to limit erosion.



## What Is Being Done

Waste that never enters the ocean never has to be cleaned up. So experts encourage people to reuse bags, tools, and containers instead of using plastic items once and then discarding them.

But more is needed. Recently, in one year, an environmental organization collected 9,200 tons of beach litter dumped by ocean tides in 112 countries. Yet, that was only about one thousandth of the trash that enters the ocean each year.

*National Geographic* reported that “the acidification [of the oceans] that has occurred so far is probably irreversible.” Sea creatures are “up against a global economy built on cheap fossil fuels. It’s not a fair fight.”

## Reasons for Hope —What the Bible Says

**“The earth is full of what you have made. There is the sea, so great and wide, teeming with countless living things, both small and great.”—PSALM 104:24, 25.**

Our Creator made the oceans and their ability to purify themselves. Consider: If he knows so much about the sea and all marine life, might he also be qualified to undo the damage that has been done to our oceans? See the article “God Promises That Our Planet Will Survive,” on page 15.



Using reusable bags and refillable water bottles can help reduce the amount of plastic waste in our oceans



**LEARN MORE.** An effective and nontoxic method used to keep large ships clean has been working in the ocean all along. Read the article “The Pilot Whale’s Self-Cleaning Skin” on [jw.org](http://jw.org).



CAN OUR PLANET SURVIVE?

# FORESTS



FORESTS have been called earth’s “lungs and life-support system,” and for good reason. Trees absorb carbon dioxide, which can otherwise harm us. They also emit oxygen, a vital component in the air we breathe. About 80 percent of the world’s land-based plants and animals live in forests. Without forests, we could not survive.

## The Threats to Our Forests

Each year, billions of trees are cut down, mostly to clear land for agricultural use. Since the late 1940’s, half the world’s rain forests have disappeared.

When a forest is destroyed, the benefits of the ecosystem and all that it provides go with it.

## Our Planet—Designed to Survive

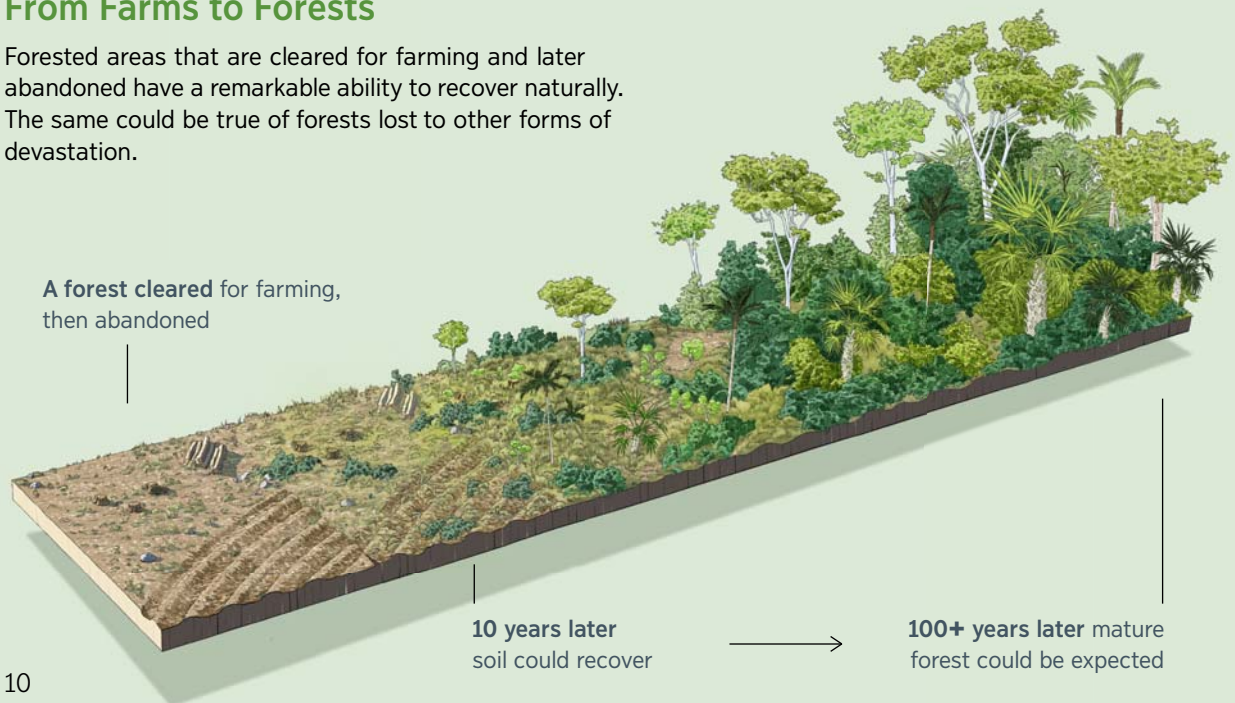
Some deforested lands have displayed an amazing ability to recover and even expand. Ecologists have recently observed, to their surprise, how quickly deforested lands have been able to regrow naturally and become healthy forests again. Consider these examples:

- Forested lands that were cleared for farming and later abandoned were monitored by researchers. A study of 2,200 such plots in the Americas and West Africa revealed that soil can return to its original forest-friendly health within ten years.
- Researchers estimate that within about 100 years, the lands could naturally achieve a healthy diversity of trees and other forest life-forms, according to a study published in *Science* magazine.
- Scientists in Brazil recently compared the rate of reforestation in areas with virtually no human intervention to that of areas where robust man-made strategies were implemented.
- Referring to the researchers in this study, *National Geographic* reports: “To their delight, they found tree-planting was unnecessary.” In just five years, the tested plots, without any tree-planting, “were full of native trees.”

### DID YOU KNOW?

## From Farms to Forests

Forested areas that are cleared for farming and later abandoned have a remarkable ability to recover naturally. The same could be true of forests lost to other forms of devastation.



## What Is Being Done

Worldwide, efforts have been made to manage existing forests and to restore those that have been degraded. As a result, according to a United Nations source, “global deforestation has slowed by more than 50 per cent” over the past 25 years.

But these efforts are not enough to save our forests. “The rate of primary forest loss in the tropics has been stubbornly consistent over the last few years,” says a report published by the organization Global Forest Watch.

Illegal logging is a multi-billion-dollar business, and commercial exploitation continues to drive tropical deforestation.

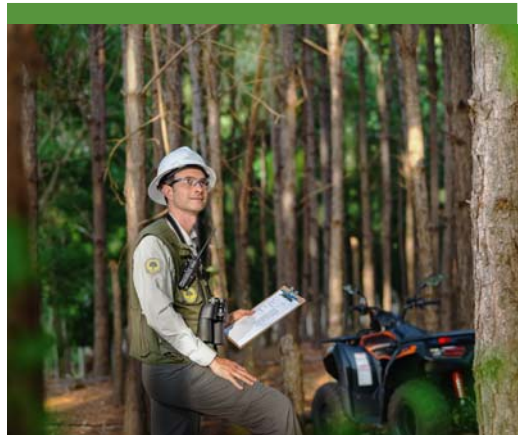
## Reasons for Hope —What the Bible Says

“Jehovah\* God made to grow out of the ground every tree that was pleasing to look at and good for food.”—GENESIS 2:9.

The Creator of all forests designed them with the natural ability to recover from the effects of sustainable human usage. He wants to preserve and sustain our forests and their magnificently designed ecosystem.

The Bible shows that God will put an end to the mismanagement of earth’s resources so that our planet and life on it will survive. See the article “God Promises That Our Planet Will Survive,” on page 15.

\* Jehovah is God’s personal name.—Psalm 83:18.



Forest management teams work to harvest mature forests responsibly and to plan the growth of new forests



**LEARN MORE.** Why can we be sure that man’s mismanagement of earth’s resources will not lead to the destruction of our planet? Watch the video *Why Did God Create the Earth?* on [jw.org](http://jw.org).



CAN OUR PLANET SURVIVE?

# AIR



WE NEED air, but not just for breathing. Air shields our planet from most of the sun's harmful radiation. Without air, temperatures around the world would plunge to below freezing.

## **The Threats to Our Air**

Air pollution poses a deadly threat to life on earth. Only one percent of earth's population is breathing air that meets the World Health Organization's standards of safety.

Air pollution has been linked to respiratory illness, lung cancer, and cardiovascular disease. Air pollution is responsible for some 7,000,000 premature deaths each year.

## Our Planet—Designed to Survive

Our planet has the natural ability to maintain a constant supply of healthy air for all breathing life-forms. These natural processes are most effective when man-made pollution is sustainable. Consider just a few examples.

- The ability of forests to absorb carbon dioxide from the air is well-known. But less well-known is the fact that coastal wetlands thriving with mangroves can do an even better job. Mangroves play a significant role in removing from our air as much as five times more carbon dioxide than tropical forests can.
- Recent studies show that some large algae such as kelp not only capture carbon dioxide from the atmosphere
- but also bury it. Leaflike kelp blades have gas-filled bladders that allow them to float great distances. Far away from shore, the bladders burst, and the carbon-laden kelp sinks to the ocean floor. There it evidently stays safely buried for many centuries.
- Our atmosphere's ability to recover from harmful levels of pollution was demonstrated during the COVID-19 lockdown. In 2020, when the world's factories and motor vehicles almost completely stopped spewing pollutants, air quality quickly improved. According to the "2020 World Air Quality Report," more than 80 percent of participating countries reported having cleaner air shortly after the lockdown was implemented.

### DID YOU KNOW?

## Our Air Quality Can Recover

During the COVID-19 lockdown, air pollution from factories and automobiles was drastically reduced in New Delhi, India. Levels of fine particulate matter (PM2.5) quickly fell. These tiny particles (.0025 mm or smaller) can cause respiratory illness and other serious ailments. This improvement was only temporary, but it demonstrated the ability of the atmosphere to recover quickly from harmful levels of pollution.

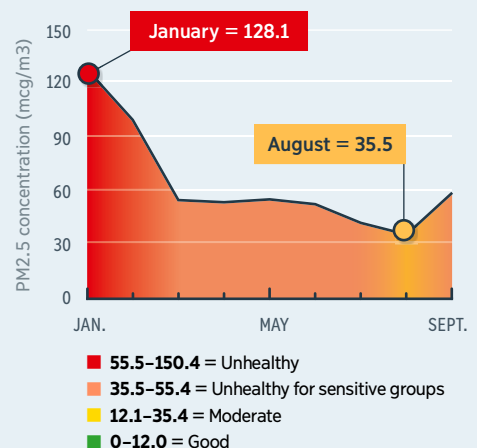


Late 2019



During COVID-19 lockdown

Average Levels of Fine Particulate Matter (PM2.5) in New Delhi  
January 2020–September 2020



Source: "2020 World Air Quality Report"

## What Is Being Done

Governments continue to press industries to reduce air pollution. Also, scientists keep discovering new ways to reverse the effects of pollution. For example, one process uses microbes to turn pollutants into nontoxic substances. Also, experts advise people to walk or cycle instead of driving and to make their homes more energy efficient.

But more is needed, as is evident in a 2022 report compiled by international agencies, including the World Health Organization and the World Bank.

The report states that in 2020, about one third of the global population relied mainly on air-polluting cooking fuels and technologies. In many areas, few people can afford new stoves or have access to alternative fuels.

## Reasons for Hope —What the Bible Says

**“This is what the true God, Jehovah, says, the Creator of the heavens and . . . the One who spread out the earth and its produce, the One who gives breath to the people on it.”—ISAIAH 42:5.**

God created the air we breathe and the natural cycles that cleanse the air, and he has both infinite power and love for mankind. Therefore, does it seem reasonable that he would do nothing about the pollution of our air? See the article “God Promises That Our Planet Will Survive.”



Commuting by bicycle can help reduce air pollution



Some governments are providing citizens with modern cooking stoves to reduce air pollution, but many people are still without access to them



**LEARN MORE.** How did our atmosphere come to be? Watch the video *Was the Universe Created?* on [jw.org](http://jw.org).





# God Promises That Our Planet Will Survive

**“The Earth is more resilient than we thought.”**

That was the conclusion reached regarding climate change by an international team of researchers. If you believe in a Creator who cares for mankind, this scientific conclusion may remind you of the many self-healing natural processes that God built into our planet’s design.

Still, given the degree of man-made damage to the earth, more than natural processes is needed for our planet to survive. Why can we be confident that God will do something about it?

Note the scriptures listed in the box that assure us that the earth will survive and even thrive.



Oleh, Siboroeniuk/E+ via Getty Images

## **Our planet was created by God.**

“In the beginning God created the heavens and the earth.”—Genesis 1:1

## **God claims ownership of our planet.**

“To Jehovah\* belong the earth and everything in it.”—Psalm 24:1

## **God designed our planet to survive.**

“He has established the earth on its foundations; it will not be moved from its place forever and ever.”—Psalm 104:5

## **God promises that life will thrive on our planet forever.**

“The true God, the One who formed the earth, . . . did not create it simply for nothing, but formed it to be inhabited.”—Isaiah 45:18

## **God promises that humans will live on our planet forever.**

“The righteous will possess the earth, and they will live forever on it.”—Psalm 37:29

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God has designed the earth with built-in systems that can withstand the impact of sensible human activity. The Bible foretells that Jehovah God will, at his appointed time, put an end to the abuse and exploitation that has damaged our planet.—Revelation 11:18

The Bible promises that then God will turn our planet into a healthy, beautiful paradise and open his hand to “satisfy the desire of every living thing.”—Psalm 145:16

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\* Jehovah is God’s personal name.—Psalm 83:18.

In This Issue of *Awake!*

## The health of planet Earth is in jeopardy.

Will it survive, or will it succumb to its injuries, dragging us down with it? Read the articles listed here, and learn what is happening to our planet and if there are reasons for hope.

### What does the future hold for our planet's

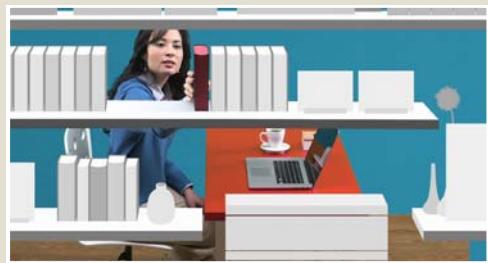
- Fresh water?
- Oceans?
- Forests?
- Air?



Xuanyu Han/Moment via Getty Images

### LEARN MORE.

Millions of people have complete trust in the Bible's promise of happy and endless life on earth. Watch the video *How Can We Be Sure the Bible Is True?* on [jw.org](http://jw.org).



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