

Four Winds of Revelation

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Chapter 1

The Wind of Natural Disasters

In the early 1900s, when the earth's population started to multiply at an alarming rate, people began to realize that the population was beginning to outstrip the food supply. However, to put more land into the production of food required tilling and seeding more soil. Back then, humankind was limited to draft animals and turning plows. But the invention of the tractor arrived just in time, enabling farmers to plant as much acreage as they possessed. In addition, the mining of phosphate and the production of petroleum by-products made fertilizer plentiful and cheap; its increased use enabled farmers to grow bigger and better crops. As a result, by the 1940s farming was

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being done on a large scale, food was plentiful, and the birth rate accelerated.

I grew up on a farm in Oklahoma. Walking down a country road one day, I noticed that the corn on one side of the road was larger, greener, and taller than the corn on the other side of the road. I just assumed one farmer had fertilized more effectively than the other. However, I soon noticed a sign on a fencepost near the field of larger corn. The sign stated, “Hybrid Number PO157.” I subsequently learned that the genetic structure of the plant had been changed to make it larger, greener, and taller than other plants. Thus, genetic engineering enabled farmers to grow more fodder for cattle feed and larger, nicer ears of corn for the hundreds of things that utilize corn in their production. This effort to grow larger and healthier plants via the science of genetics began what was called the *green revolution*, which began in the 1940s. Through the work of Dr. Norman Borlaug, an American biologist, Mexico, for example, was able to develop a stronger wheat plant that produced twice as much grain. Prior to its development, hunger was a way of life

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for many in Mexico, because the country had to import half of its wheat, and many people could not afford to purchase the grain. With the development of the new strain of wheat, Mexico was able to supply its populace with affordable wheat and was even able to export wheat to other nations.

Much of the earth's populace lives on rice, including the people of India. In the early 1960s, India was on the brink of mass famine due to a rapidly growing population. Through the work of Dr. Borlaug and the Ford Foundation, a new variety of rice, called IR8, was developed. It was engineered to produce more grains per plant when grown with irrigation and fertilizers. Today, thanks to the green revolution, India is one of the world's leading producers of rice. Farmers in other parts of the world also began using IR8, and the development of hybrid plants went into full production. As a result, malnutrition in many countries was greatly reduced. The green revolution has alleviated food shortages in much of the world, except for parts of Africa, which have lagged behind due to internal problems.

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In addition to discovering fertilizers and hybrids that resulted in faster and better yields, farmers also learned that they could now grow two crops per year on the same piece of land. This advance didn't come without a price, however, since fertilizing without allowing the land to rest resulted in each new crop being slightly less productive than the one before it. Monoculture farming, in which hundreds of acres of land are repeatedly planted with the same crop also began to exhaust the soil. China provides an example of what can happen when this type of farming is used. Since large portions of China's land have become unproductive, it is now transplanting entire communities to the unproductive land so the area the village once occupied can be utilized as farmland.¹ Salt from fertilizers have begun accumulating in the soil as well, making it unproductive. In fact, overfertilization, soil depletion, desertification, and deforestation of the world's soil has contributed to making eleven billion acres of land unproductive, which represents 45 percent of the earth's vegetated surface.

One of the main ingredients in fertilizer is

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phosphate, and the African nations of Morocco and Western Sahara contains 80 percent of the world's supply. It is estimated that by 2030, the global demand for phosphate will exceed the supply. Global food production at that point will almost certainly plummet, meaning that ever-larger segments of the earth's population could suffer hunger. Burgeoning populations also require ever more land for housing; and as the earth's cities expand, a land area equivalent to the state of Maine is covered with concrete each year. One result is a growing implementation by city dwellers of urban agriculture in which people grow enough food to feed their own families on a small lot, or even in their backyards.

The demand for land and lumber is playing havoc with the world's rain forests. At one time, the rain forests covered 12 percent of the earth's surface; today, it is a mere 2 percent. One and a half acres of rain forest disappear every second, which equates to an area of land the size of New Jersey each year. The rain forests supply 20 percent of the earth's oxygen, and they recycle the carbon dioxide we produce. Yet, it is predicted that in twenty years the rain forests

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will be gone, along with the plants and species that inhabit them. In the interim, if immediate steps are not taken to stop the harvesting of lumber in the rain forests, the supply of the world's oxygen will decrease even more.

To summarize, we know that earth's population will continue to grow, resulting in corresponding increases in the demands for food and fertile land. We have reached our limit regarding land that is available for food and lumber production; in fact, each year we have less of it, not more. Making the fertile land we do have more productive will require more fertilizer, but as was previously mentioned, it is predicted that the supply of phosphate, a primary ingredient in fertilizer production, will be gone by 2030. These are not issues that can be postponed and addressed ten years down the road. They must be acted upon *now*. In fact, decades ago they were very serious issues that demanded humankind's immediate attention!

Land is not productive without water, and irrigation is another factor that has made it possible to grow larger and more plentiful crops. Many people are unaware that farming

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uses 70 percent of the world's fresh water supply. Industry uses 20 percent, and domestic use is 10 percent. As I write this book, water tables throughout the world continue to drop. Due to a prolonged drought, the state of California is searching for water by digging deeper wells. There are large bodies of fresh water underground called *aquifers*. The Ogallala Aquifer is located in the central United States. It is so large that it lies under parts of Nebraska, Colorado, Kansas, Oklahoma, New Mexico, and Texas. This area, called the "bread basket" of the world, produces a large amount of wheat, and the Ogallala Aquifer is the primary source of the water used to irrigate that wheat. At the present rate of use, the Ogallala Aquifer will be dry within the next twenty years!

Over one billion people worldwide are dependent upon glaciers for fresh water, but the glaciers are melting at an alarming rate. The average person in China uses eighty-six liters of fresh water a day, as China has had a fresh water shortage for years, while the average American uses five hundred liters a day. Unfortunately, water is not appreciated until the well runs dry.

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Rainwater runs off the land into streams, which carry it into creeks, which run into rivers, which in turn flow into oceans. As the water runs off the land, it carries with it excess fertilizers and pesticides. Fertilizer causes algae to bloom, which is what the news is reporting when it calls our attention to a “red tide” in lakes or oceans. When these algal blooms occur, they suck most of the oxygen out of the water, which kills the fish and coral in that area and produces a “dead zone.” Where the Mississippi River empties into the Gulf of Mexico, there is a dead zone covering sixty-seven hundred square miles in which no fish or coral can live. There are more than four hundred such dead zones throughout the world. Many scientists believe we have gone too far in depopulating the oceans, so that there is no way we can save them. British Petroleum (BP) spent more than forty billion dollars trying to clean up the mess it recently made in the Gulf of Mexico. But the dead zones are an even bigger problem than the BP oil spill.

As the years have passed and the earth’s population has grown, the Wind of Natural Disasters has accelerated, and its force has become more

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destructive. Earth's natural resources are disappearing. Christ pointed to this as a sign of His return: "There will be signs in the sun, in the moon, and in the stars; and on the earth distress of nations, with perplexity, the sea and the waves roaring; men's hearts failing them from fear and the expectation of those things which are coming on the earth" (Luke 21:25, 26).

With each passing year, the problems grow larger and more perplexing. How will our divided world possibly unite to solve these crises? The situation doesn't look hopeful. But despite appearances, there really is cause for hope because the next verse states, "Then they will see the Son of Man coming in a cloud with power and great glory" (verse 27). Praise God! Jesus' soon return is the light at the end of earth's dark tunnel. "Now when these things begin to happen, look up and lift up your heads, because your redemption draws near" (verse 28).

1. Much of the information in this chapter is from chapter 4 of Scott Christiansen's book *Planet in Distress* (Hagerstown, MD: Review and Herald®, 2012), 38–52.