

# Top 10 Worst Man Made Environmental Disasters

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## 1. Exxon Valdez Oil Spill

The Exxon Valdez was an oil tanker. This US ship ran aground off Alaska on March 24, 1989, causing an oil spill and one of the greatest environmental disasters in the maritime sector. After a repair, it was put back into operation under the name Exxon Mediterranean and was in service until 2012, most recently as an ore freighter under the name Oriental Nicety.

The Exxon Valdez was built in 1985/1986 under building number 438 at the National Steel & Shipbuilding Company in San Diego Bay for the US oil company ExxonMobil and handed over to the buyer in December 1986.

The ship was more than 300 meters long, reached a draft of 20 meters with 30,000 tons of empty mass, displaced a water mass of 240,000 tons when fully loaded and was able to transport 235,000 cubic meters of crude oil. The ship's propulsion system consisted of a slow-running 8-cylinder two-stroke diesel engine that acted on a fixed propeller. The ship's top speed was specified at 16.25 knots (30.1 km/h).

## 2. The Shrinking of the Aral Sea

The Aral Sea was a large, drainless salt lake in Central Asia. Due to long-lasting dehydration, the lake fell into several considerably smaller parts around the turn of the 20th and 21st centuries.

Since then, the remains have formed the Northern Aral Sea, the Western Aral Sea and the Barsakel Sea between them and the Aralkum desert. They all lie within the Aralo-Caspian Valley in a basin, the lowlands of Turan, and belong to Kazakhstan, Uzbekistan and partly to both countries. The Aibugir Sea, a little further south in Turkmenistan, originally connected to the Aral Sea, was cut off earlier. Due to the continental climate, semi-desert and desert climates prevail.

The dehydration of the lake, which has been increasing since around 1960, is one of the largest man-made environmental disasters in the world. With an original extension of around 68,000 square kilometers (almost the size of Bavaria), the Aral Sea was previously the fourth largest inland lake on earth.

### **3. Bhopal Disaster**

The Bhopal disaster, also known as the Bhopal gas tragedy, occurred on December 3, 1984, in Bhopal, India, the capital of the state of Madhya Pradesh. In a plant of the Indian company Union Carbide India Limited (UCIL), several tons of toxic substances were released into the atmosphere due to human error. In 1984 UCIL was 51% owned by the US chemical company Union Carbide Corporation (UCC). The remaining shares were held by the Indian state, Indian financial institutions and private investors in India. The disaster was the worst chemical disaster to date and one of the best-known environmental disasters in history. Thousands of people died from their immediate consequences.

### **4. Electronic Waste in Guiyu, China**

The electronic waste disposal site in Guiyu is located in the homonymous Guiyu in the province of Guangdong of China, an agglomeration of four neighboring villages with a total size of around 52 square kilometers, which is widely known as the largest electronic scrapyard in the world or "capital" of the Electronic scrap.

In 2005, around 60,000 people were employed to recycle electronic waste on the order of around 100 truckloads a day. The handling and processing of harmful and toxic electronic waste without adequate protection for the environment and the employees led to the nickname "electronic cemetery of the world" for the region.

### **5. Great Smog of London**

The Great Smog in London happened from December 5th to 9th, 1952. Due to the extreme air pollution, tens of thousands of people got breathing problems, from which thousands died. There had been smog events in London before, but none of them were anywhere near the size of 1952.

From 1825 to 1925 London was the city with the largest population in the world. This led to major environmental problems early on. One of them was the emission of sulfur dioxide-containing smoke from the widespread coal heaters. Smog may have existed in London since the 13th century. This type of smog is known as winter smog (inversion weather with pollutants in the cold air area).

Even before the catastrophe of 1952, this repeatedly led to extreme smog events. So on December 27, 1813, from December 7 to 13, 1873, in January 1880, in February 1882, in December 1891 and in November 1948. In each of these events, the number of deaths per day in London rose significantly. Until the catastrophe of 1952, Londoners dubbed this smog pea soup.

### **6. Deepwater Horizon Oil Spill**

The 2010 oil spill in the Gulf of Mexico was triggered by the explosion of the Deepwater Horizon oil rig on April 20, 2010, and is one of the most serious environmental disasters of this type. Gulf of Mexico oil spill is estimated at 800 million liters, and similarly, large amounts of crude oil got spilled in 1979/80 when the Ixtoc I well was blown out. In mid-2015, the BP group, responsible for the event, had to pay a total of \$18.7 billion in damages to the U.S. government, the highest in U.S. history.

On April 20, 2010, the Deepwater Horizon oil drilling platform, built in 2001 and operated by Transocean on behalf of the BP group, caused an explosion after natural gas escaped from the borehole, killing eleven people and subsequently the platform for two days later dropped. Internal

documents of the BP group show that despite the warnings from experts, an inexpensive method with greater risk of gas leakage was deliberately chosen to seal the borehole.

## **7. Castle Bravo**

conducted primarily on the Bikini Atoll in the Pacific in 1954. The Bravo and Yankee tests are still the most powerful nuclear tests that the United States has ever performed. 'Bravo' had almost three times as much explosive power as expected due to incorrect calculations in the Los Alamos National Laboratory.

The Bravo and Romeo tests have become the epitome of the hydrogen bomb. The many pictures taken during the operation contributed to this.

The most powerful American thermonuclear weapon was tested, which detonated with an explosive force of around 15 megatons of TNT equivalent and was almost 2.5 times as powerful as predicted by its designers.

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## **8. Ecocide Vietnam**

During the Vietnam War, the official military purpose of Agent Orange was to defoliate forest trees so that the guerrilla army of the National Liberation Front of South Vietnam would have no place to hide. Agent Orange is a clear liquid; Its name is taken from the color of the stripes painted on the drums used to transport it.

The United States sprayed Agent Orange to Vietnam

For 10 years, from 1961 to 1971, during the Vietnam War, the US military sprayed more than 18.2 million gallons of Agent Orange with dioxin-containing ingredients to more than 10% of the land area in southern Vietnam, causing contamination, poisoning and destroying millions of hectares of forest and agricultural land. Many people believe that in addition to harming the environment, this chemical also has serious consequences for the lives and health of many Vietnamese people, even to the post-war generation.

## **9. Kuwaiti oil fires**

The Kuwait oil fires were caused during the Gulf War by Iraqi military forces after setting fire to 700 oil wells, as part of a "scorched earth" tactic, as they withdrew from Kuwait in 1991 after conquering the country, but being expelled by Coalition military forces. The fires started in January and February 1991 and the last was extinguished in November 1991.

The resulting fires got out of control due to the dangers of dispatching fire crews. They had laid mines in areas near the oil wells, and a military cleanup was necessary before the fires could be put out. About six million barrels (950,000 m<sup>3</sup>) of oil were lost per day. Eventually, private teams were hired, at a total cost of US \$ 1.5 million for Kuwait. The fires had burned for approximately ten months, causing widespread contamination.

## **10. Chernobyl disaster**

The Chernobyl nuclear disaster occurred on April 26, 1986, in Reactor Block 4 of the Chernobyl nuclear power plant near the Ukrainian city of Prypiat, founded in 1970. On the seven-stage

international rating scale for nuclear events, it was the first event to be classified in the highest category catastrophic accident (INES 7).

A simulation of a complete power failure, started on April 25, 1986, under the direction of Anatoli Stepanowitsch Djatlow, resulted in an uncontrolled increase in performance due to serious violations of safety regulations and the design-related properties of the graphite-moderated nuclear reactor type RBMK-1000. On the 26th of April at 1:23 am there was an explosion of the reactor and the fire of the graphite used as a moderator.

Within the first ten days after the explosion, the radioactivity of several trillion becquerels was released into the earth's atmosphere. The radioactive substances released into the atmosphere in this way, including the isotope <sup>137</sup>Cesium with a half-life (HWZ) of around 30 years and <sup>131</sup>Iod (HWZ: 8 days), mainly contaminated the region northeast of Chernobyl as a result of radioactive precipitation as well as many countries in Europe due to wind loads. After the disaster, so-called liquidators started decontaminating the most affected areas. Under the direction of the Kurchatov Institute, a provisional protective coat made of reinforced concrete was erected until November 1986, which is usually referred to as a "sarcophagus".sd

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