

# Environmental Issues in Europe: Acid Rain

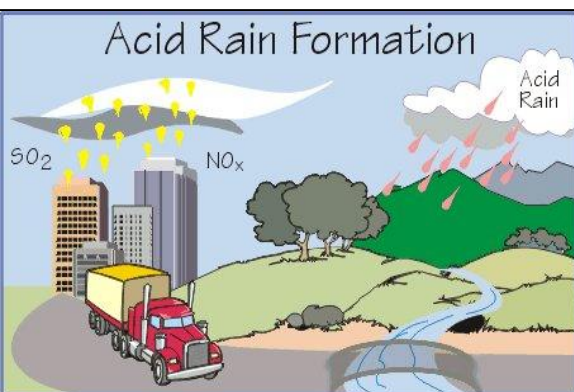
## Problem

-Over the past 30 years, acid rain has been damaging Germany.

-It contaminates soil, kills trees, eats holes in the surfaces of buildings & statues, pollutes rivers, and harms wildlife.



-What is Acid Rain?



\*Acid rain is a result of air pollution.

\*When any type of fuel is burnt, a lot of different chemicals are produced and released into the air.

\*The chemicals mix with water in the clouds and come down with rain.

\*The rain that falls has weak levels of acid mixed in.

\*It's not acidic enough to burn your skin, but it is very harmful for the environment.



# Environmental Issues in Europe: Acid Rain

## Causes

- The main source of acid rain is smoke from factories (burning fuels like natural gas, coal, & oil).
- Germany is a top manufacturing country.
- It leads the world in cars, steel, & chemical products.
- The economy depends on these factories.
- Cars & buses also produce harmful gases.



## Effects

- Acid rain can affect trees in several different ways:
  - Dissolves & washes away the nutrients and minerals in the soil
  - Causes the release of harmful substances such as aluminum into the soil
  - Acid rain has destroyed nearly half of the Black Forest!
- This has really harmed Germany's economy because one of its major natural resources is timber.
  - Deforestation is the cutting or losing of massive amounts of trees

## Acid Rain Causing Erosion on Statue



## Germany's Solution

- In Germany, power plants that use water power are replacing many coal-burning factories.
- They are developing new types of energy, such as wind turbines and solar power.
- Germany's government has passed laws to reduce emissions from cars and factories.

# Environmental Issues in Europe: Air Pollution in the United Kingdom

## Problem

- Many of the world's largest and most industrialized countries are in Europe. (Paris, London, Berlin, Rome, Amsterdam)
- These cities tend to have a lot of factories, a lot of traffic, and produce a lot of air pollution.
- A country that has been greatly affected by this problem is the UK.



-London, the capital of UK, is famous for air pollution.

-The word “smog” was first used in 1905 to describe air in London (thick fog + smoke).

-Thick London smog happens when water in the air mixes with smoke particles from a coal fire.

## Causes

-In the past, the major source of air pollution was smoke from burning coal in factories.

-Today, exhaust from automobiles is the problem.



# Environmental Issues in Europe: Air Pollution in the United Kingdom

## Effects

- Asthma and pneumonia are linked to vehicle emissions.
- It burns the lungs, nose, and eyes, and endangers human life.
- It also blackens buildings and harms wildlife.



## Solution

- In Western Europe, nations are trying to lessen pollution.
- They are spending money and researching new ways to produce power that cause less environmental damage.
- In Eastern Europe, few nations are researching new technologies, they have less money.
- Governments are also researching alternative fuel sources for cars which would lessen air pollution and acid rain.
- Rather than being made of oil, these fuels come from plant soil.

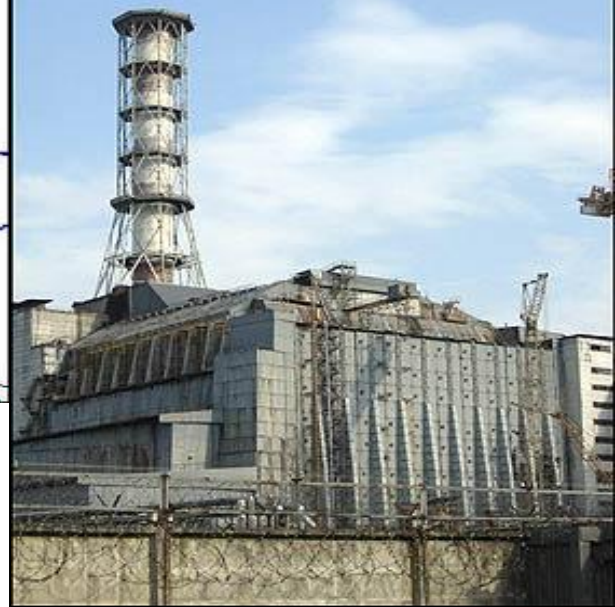
# Environmental Issues in Europe: Chernobyl Nuclear Disaster

## Problem

- In 1986 the Soviet Union generated 10% of the world's nuclear power.
- One of the USSR's nuclear power plants located in Chernobyl, Ukraine exploded in April 1986.
- The explosion released large amounts of deadly radiation into the atmosphere.



**Before...**



-The morning after the explosion, there was no hint of a disaster.

-After 36 hours of being exposed to radiation, the people were finally told to pack their clothing and evacuate their homes.

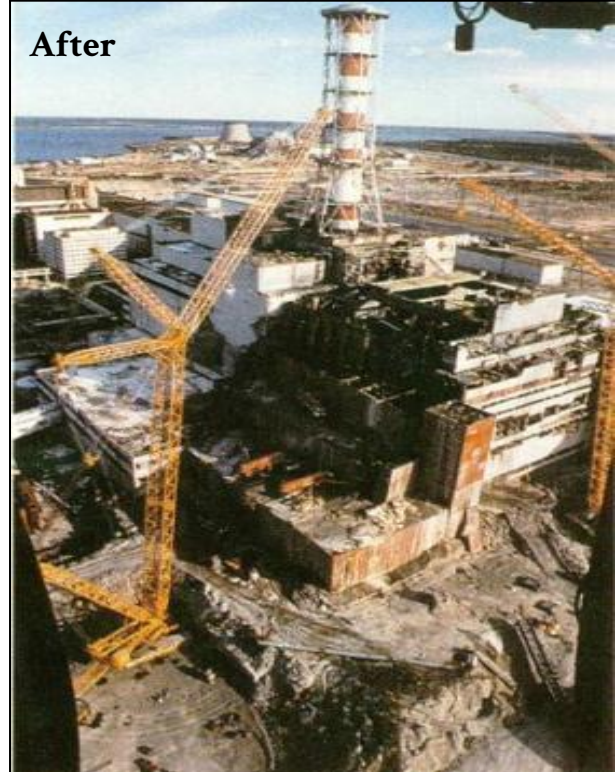
-There was a 30 kilometer (18 mile) evacuation zone.

## Effects

-Nearly nine tons of radioactive material (90 times as much as the Hiroshima bomb) was hurled into the sky.

-Over the following days, winds mostly blowing north and west, carried fallout into Belarus, as well as Russia, Poland, & other countries around the world.

**After**



# Environmental Issues in Europe: Chernobyl Nuclear Disaster

## Effects

- In the first months after the accident, 28 emergency workers died from acute radiation syndrome.
- Doctors have noticed an increase in cases of cancer who lived nearby.
- Many animals died or got sick. Fish in nearby rivers were unsafe to eat for many years.
- Millions of acres of farmland have been poisoned.

## Chernobyl Today

- Chernobyl continued to produce electricity for another 14 years, until international pressure forced its closure in 2000.
- An official exclusion zone around the plant remains in place, extending for 30 kilometers (18 miles).
- It is one of the most radioactive spots on Earth.

