

# Chapter 6: Federal Republic of Germany

## Section 1: The Geography of Germany

### Section 1: Physical Geography and Acid Rain

**Directions:** Use the map to answer each question in one or two sentences.

**Physical Map of Europe**



1. What are some major European landforms that are located in Germany?

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2. Explain the importance of the northern coasts to Germany.

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3. How does the European Plain in Germany affect agriculture?

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4. What are some characteristics of the Alpine region of Germany?

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5. How do rivers play an important part in German manufacturing and trade?

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6. What are the natural resources in Germany that have been beneficial to Germany's strong economy?

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7. What is the relationship between the Gulf Stream and Germany's marine climate?

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**Directions:** Read the selection and answer the questions that accompany the article.

### ACID RAIN IN GERMANY

Germany is a country of old forests, beautiful rivers, and historic artwork and buildings. Over the past thirty years, acid rain has taken its toll on these landmarks. Acid rain has ruined nearly half of the Black Forest in southwestern Germany. It has damaged the soil and the trees growing in it. Many acres of diseased trees are at risk of dying. Sulfur and nitrogen found in acid rain eat holes in the surfaces of statues and buildings. Acid rain pollutes rivers, like the Danube and the Rhine, and kills the wildlife living there.

When it comes to the problem of acid rain, Germany is its own worst enemy. The main sources of acid rain are smoke from factories and power plants. These facilities burn fuels like natural gas, coal, and oil. Cars and buses that burn gasoline and diesel produce these gases too. Germany, however, depends on manufacturing. The country is one of the leading exporters of cars, steel, and chemical products. These industries have mostly coal-burning factories. Germans also own more cars than people of most other countries do. This adds to acid rain through auto emissions.



Nature plays a part in the acid rain problem. The toxic smoke from manufacturing plants is carried by air currents to other places before it falls to earth as acid rain. Germany shares its borders with many other countries. With other countries involved, it is also a more difficult problem to solve. For example, air currents bring the chemical-filled smoke from coal-burning factories in the United Kingdom to Germany. The chemicals fall to earth in Germany as acid rain.

Germany has been working on the problem of acid rain. In southern Germany, plants that use water power from streams and rivers in the region are replacing many coal-burning factories. The German government has passed laws to reduce emissions from automobiles and factories. Factories are switching to cleaner fuels. They are building taller smokestacks that scrub the smoke before it enters the air. In 2007, Germany, as a member of the European Union, promised to increase its use of cleaner, renewable energy by 20 percent. Germany's goal is to decrease the use of fossil fuels like coal and oil.

Germany is developing new types of energy. It is the leading producer of wind turbines and solar power technology in the world. It is home to the largest wind farm and the largest solar energy plant in the world. Because of these changes, the country's harmful emissions are falling. This is reducing the amount of acid rain.

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- \_\_\_\_\_ 8. How does nature play a role in Germany's acid rain problem?
- The poisonous emissions from cars cause acid rain.
  - Air currents carry toxic smoke from other countries' factories to Germany.
  - The rivers of southwestern Germany are used to make electricity for other countries.
  - Germany has many buildings that are being destroyed by the chemicals in the acid rain.
- \_\_\_\_\_ 9. What are the main causes of acid rain in Germany?
- farms and forests
  - water power and electricity
  - coal burning factories and automobile emissions
  - solar power and wind turbines blowing the poison gases
- \_\_\_\_\_ 10. Which is an effect of acid rain?
- cleaner rivers
  - diseased forests
  - buildings and statues that look new
  - increased automobile manufacturing
- \_\_\_\_\_ 11. Which solution to Germany's acid rain problem would be the most challenging?
- reducing automobile emissions
  - increasing the use of wind and solar power
  - getting other countries to stop using fossil fuels
  - changing from coal-burning power plants to water-powered ones

