Since the 1980s, China’s economy has grown quickly. New industries have developed, and new factories have been built. By 2010, the country had become the largest exporter of goods and the second-largest economy in the world.

China’s booming economy has brought prosperity to many of its people, but it has also had some negative effects. The new industries have led to increased levels of pollution. In fact, today about three out of every four of the country’s lakes are polluted. Of course, China, like other emerging economies, is in the early stages of industrialization. As its economy develops, the country will undoubtedly take steps to deal with its pollution problem. In fact, it has already begun to do so. Meanwhile, however, pollution is harming China’s rivers and lakes.

Factories cause some of China’s water pollution problems. Many dump chemical waste into nearby waterways. As a result, harmful chemicals such as arsenic and ammonia show up in lakes and rivers.

Pollution from factories and other causes resulted in the decline of Lake Tai, China’s third-largest body of fresh water. In the 1950s, the Chinese built dams near the lake to control floods. However, the dams also reduced the lake’s ability to clean and protect itself from harmful pollutants. When factories dumped massive amounts of chemicals into the lake, the pollution caused algae, or plantlike organisms, to grow (Figures 4.22 and 4.23). So much algae grew that it sucked the oxygen out of the lake and suffocated its plants and fish.
DAMAGED DRINKING WATER

Although Chinese officials knew their country had a pollution problem, for years they only studied the effects of industrial pollution on bodies of water. Then in 2007, they began to record the discharge from farms and landfills. Based on this information, Chinese officials realized that water pollution levels were more than twice as high as they had originally thought.

Some of this pollution is caused when cities dump raw sewage, or human and animal waste, into lakes and streams. People who drink this water are taking in disease-causing bacteria.

Sewage has also damaged China’s coastline. In 2006, about 7.5 billion tonnes of raw sewage were dumped off the southern coast of the country. Oil pipeline leaks and spills further pollute China’s coastline and seas.
THE CONSEQUENCES OF WATER POLLUTION

All of this pollution takes a terrible toll on human health. In China, millions of people have become sick from drinking dirty water. Experts estimate that water pollution kills nearly 100,000 Chinese people each year. Scientists believe that more people may suffer from stomach and liver cancer in China than anywhere else in the world. They put at least part of the blame on water pollution (Figure 4.24).

Furthermore, water pollution is thought to cause thousands of birth defects. In addition to health concerns, nearly half of China’s 660 major cities face water shortages as a result of the country’s polluted waterways. Because so many of China’s lakes, rivers, and streams are polluted, more than 300 million Chinese people lack water that is clean enough to use for irrigating crops, drinking, or washing clothes (Figure 4.25). Instead, these people are turning to underground water supplies.

However, they risk using up those too. The World Bank has warned China that water pollution could have “catastrophic consequences for future generations.”

China’s Water Pollution by the Numbers

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>218</td>
<td>Number of cities in China without water-treatment facilities</td>
</tr>
<tr>
<td>450</td>
<td>Number of people in southern China who were poisoned by arsenic in the drinking water in 2008</td>
</tr>
<tr>
<td>19,958</td>
<td>Tonnes of red dye water that a t-shirt factory dumped into a river every day</td>
</tr>
<tr>
<td>100 million</td>
<td>Number of Chinese who drink polluted water every day</td>
</tr>
</tbody>
</table>

FIGURE 4.24 This chart shows some numbers that shed light on water pollution in China.

FIGURE 4.25 People wash their clothes in a highly polluted river in the city of Guiyuzhen, China. Countries around the world send used computers and other electronic waste to Guiyuzhen for disposal. The waste causes severe pollution problems for the city.
SPEAKING OUT ABOUT POLLUTION

In 2006, the Chinese government acknowledged that the country has a big water pollution problem. Officials recognized the problem after people began speaking out. For more than a decade, Wu Lihong snapped photographs of factories dumping chemicals into Lake Tai (Figure 4.26). He mailed the photos to the government. Eventually, officials cracked down on the factories, and pollution eased in Lake Tai.

Today more Chinese citizens are concerned about pollution. They are talking to the media and leading protests. In response, China has spent billions on new wastewater treatment plants. The plants clean the water that is taken from lakes and rivers. In 2007, 126 treatment plants dotted the upper stretches of the Chang Jiang (Yangtze). By the end of 2009, the river had 240 treatment plants.

A HEALTHY ENVIRONMENT

For right now, the Chinese people face a difficult choice. On the one hand, they want to do a better job protecting the environment. On the other hand, the Chinese want to keep growing their economy. Chinese citizens can afford more cars, homes, and electronic devices than ever before. Yet continued growth depends on expanding industry, which often has meant worsening pollution.

Can the Chinese build business while cleaning up their water? Can they have both health and wealth? Time will tell.

EXPLORE THE ISSUE

1. List the evidence that shows that China’s water systems are polluted. Give some details about the extent of the pollution.

2. Imagine you are a TV news reporter trying to answer the question “Why did China ignore the problem of water pollution?” Write the script of the report that you will give in your news broadcast. Be sure to offer some evidence for your conclusions.

3. With a partner, discuss the steps that China is taking to improve the condition of its water. Meet with another pair. Debate whether these steps will solve the problem.