

European Environmental Market

By Neno Duplancic

This is the first of a two-part series discussing the growing environmental problems confronting the European region, the effects on the European population, business and industry, new regulations and standards being imposed, and the role of American companies in the European environmental market.

The upcoming economic unification of Western Europe in 1992, following the peaceful revolution that swept across Eastern Europe in 1989, will create a bloc of 25 nations and some 480 million people who could eventually outstrip the economies of the United States and Japan. The growing awareness of threats to the environment, and the need for innovative approaches to remedy these, represents a real challenge to European business. While such problems as air and water pollution, waste management and the possibility of enhanced global warming are often perceived as industrial problems, many can only be effectively addressed on an international basis. The dangers posed by current pollution levels, underscored by a series of spectacular accidents, have spurred many Europeans to demand more and better environmental safeguards. The pressure to implement internationally-negotiated environmental solutions will present a major opportunity for business in Europe in the 1990s.

An environmental industry can exist in a country only if polluting industries are present, the economy is healthy enough to afford the costly cleanups, environmental laws have been enacted, and the laws are enforced. These are the very forces driving the growth of environmental industry in the United States. In Europe, marked contrasts exist among its

three regions. Western European countries such as Germany, France and Great Britain are much like the United States. In Southern Europe, fewer regulations have been enacted and enforcement of these laws has been weak. This has led many European companies to relocate to the south seeking to reduce costs. Eastern European countries have polluting industries, but lack healthy economies and environmental laws. For the few laws that do exist, enforcement is practically nonexistent. In fact, much of the basic legal framework that serves as the underpinning for pollution control regulations in the West are absent in Eastern Europe.

Examples of the major environmental problems confronting each of the three regions are examined below. Estimated cleanup costs and the role American environmental companies can play in these forthcoming efforts are also described.

Eastern Europe

Environmental damage has been much worse in Eastern Europe under communism than in Western Europe under capitalism. Environmental statistics under Communist regimes tend to be treated as state secrets. Hence, it is difficult to assess the real damage that has been done in past decades. The liberated peoples of these countries are just starting to learn the truth about the air they breathe and the water they drink.

Now that Eastern Europeans have the freedom to determine their own future, they face the near impossible task of ending an environmental nightmare. The task of cleaning up the existing pollution and reducing future releases is expected to stretch the technological and financial resources of these countries to the

limit. The top priority will be reducing air pollution, which is also affecting Western Europe. Currently, Eastern Europe produces only about a third of Europe's gross domestic product but it is responsible for two-thirds of its sulphur dioxide production. Next will come cleanups of contaminated water and soil. However, these efforts are not likely to begin until the necessary environmental laws are enacted and new institutions created or existing ones empowered to make certain these laws are followed.

Few efforts are made either to minimize the quantities of waste generated or to dispose of the wastes in a safe manner. Throughout most Eastern European countries, sewage is rarely treated. Factories discharge untreated wastes directly into rivers and seas. Toxic wastes are improperly stored and landfills not lined. For years, Eastern Europe has also been a dumping ground for industrial waste generated by its Western neighbors. This practice must stop if the region is to begin the long and costly cleanup process that lies ahead. The truth about nuclear waste disposal from Soviet-built nuclear power plants and nuclear waste imports from the West has yet to surface. Years of environmental neglect have resulted in appalling pollution throughout the region. Some examples of the daunting environmental and health problems faced by Eastern European countries follow below.

Hungarians have the lowest life expectancy in Europe. Drinking water in the southern parts of the country is seriously contaminated with arsenic. Methods of treating sewage are primitive throughout the country. Air pollution levels exceed maximum World Health Organization (WHO) limits for half of the population. Much of

Hungary's groundwater is polluted.

Circumstances are similar in Poland, where one in four people is expected to have cancer by the year 2000. At least 15 percent of these cases will be the direct result of pollution, according to a Polish Health Ministry Survey. High acid levels and metals pollution have damaged half of the farmland. Ninety-five percent of the rivers are polluted. Leukemia rates are soaring. In the southern part of the country the danger of accidental air emissions is so high that the government is considering issuing gas masks to protect people.

Pollution-related cancers and infant mortality are soaring in Czechoslovakia. The drinking water in much of the country contains such high levels of nitrates that it is hazardous to babies under four months of age unless it is boiled and diluted with mineral water. Forty percent of sewage is untreated and more than 70 percent of the rivers are heavily polluted. Half of the forests are dying or damaged. Poland and Czechoslovakia rank first and second in the world for amounts of industrial waste generated per square mile.

In Bulgaria one third of the forests are damaged. The Black Sea, which lies to the east, is polluted by sewage, oil and industrial waste. Metal pollution is destroying agricultural lands throughout the country. Drinking water is polluted by nitrates.

The population of Romania suffers from high levels of pollution-related heart diseases and exceedingly high infant mortality rates. There are virtually no air pollution controls in the country. Enormous volumes of pesticides, fertilizers, detergents and other chemicals are carried by the Danube to the Black Sea. Dumping of toxic waste further contributes to the ever-worsening ecological catastrophe occurring in the Black Sea.

Agricultural studies of East Germany indicate that one-fifth of the water is so polluted it is unsuitable for drinking. More than half of the trees are damaged by pollution and about nine percent

of the agricultural land is ruined. Only three percent of the lakes have potable water, and one-third of the rivers are biologically dead because of toxic waste dumping by chemical plants. Urban air pollution is 50 times higher than allowable WHO standards. Open uranium waste dumps are polluting groundwater and air in the south. East Germany has one advantage however, that its eastern bloc neighbors do not: It has been reunited with West Germany. With their capital and technological expertise, West Germans believe they can help East Germany conform to West German environmental standards within 10 years.

Why are Eastern European countries so polluted? The answer lies partly in the way they chose to develop. All shared the Stalinist preoccupation with heavy industry. The region's pollution is caused mainly by its industry and the methods by which its power is generated. The region's dominant fuel is the dirtiest: coal, especially brown coal or lignite. Lignite has a high sulfur and ash content, low heating efficiency, and is burned with virtually no environmental control equipment. Use of primitive industrial equipment only exacerbates the problem. The open-hearth furnace, for instance, an energy-wasting technology that has largely been abandoned in the West, still accounts for half of Eastern Europe's steel production.

As the Soviet forces withdraw from Eastern Europe, yet another aspect of the extent of contamination is likely to become better known. Activities at military bases produce large quantities of hazardous and toxic waste. Cleanups of these will constitute a strong undertaking. The Soviets have numerous military installations in all the Eastern bloc countries except Romania. In Czechoslovakia alone, for example, there are over 165 Soviet bases and other contaminated sites.

Unfortunately, the situation in Eastern Europe may become worse before it becomes better. Recent negotiations with the Soviet Union indicate that Moscow's new approach to energy

exports to Eastern Europe could seriously hamper the region's efforts to reduce air pollution. Since the Eastern European nations are short of hard currency, the new Soviet requirement that oil be paid for with hard currency may give the countries of the region no choice but to become even more dependent on lignite. Some have suggested that Eastern Europe generate the cash to clean up the environment by selling electricity to the West. This "Byzantine arrangement" would be very counterproductive, since the main source of pollution in the region comes from power generation. Furthermore, chronic shortages of electricity and blackouts are still common during the winter months. The outlook for energy availability in Eastern Europe in the near future is particularly bleak.

The movement toward more democratic institutions and the elimination of state monopolies will place greater pressure on the governments to enforce existing environmental laws and enact new ones. Under the one-party systems that dominated Eastern Europe until recently, there was little pressure to curtail pollution. The rise of activist groups was held in check by the repressive regimes. Restrictions on travel and communication precluded the free exchange of information on environmental conditions. Furthermore, the worst polluters, as the United States itself is now finding at its DOE facilities, were state-owned. One advantage that Eastern European countries have as they start anew is the opportunity to make "green principles" a fundamental component of their economies. In the West, by contrast, the challenge has been for industries to change their manufacturing and waste handling methods to incorporate environmentally sound practices.

While Eastern Europe needs Western technology, it lacks trained specialists familiar with the latest advances, and thus will be vulnerable to environmental hucksters. In fact, even as Western companies begin to get involved in rebuilding Eastern Europe's

the East and sell outdated technology. This would be even more devastating to the environment and their economies. The East European governments should insist that any Western company eager to exploit opportunities in the East should conform to the latest technologies that have built-in pollution control devices. Any cleanups performed by Western companies should comply with the environmental standards of the European Community (EC).

Southern Europe

Economic analysts note that as trade barriers fall and a single European market emerges, consumers are likely to benefit from the lower costs of production in underregulated Southern Europe. In this group of countries fall Italy, Spain, Greece, Portugal and Yugoslavia. All but Yugoslavia are members to the EC. Italy and Spain have the fastest growing economies and probably the worst environmental problems in the European community. Yugoslavia, Greece and Portugal are like the countries of Eastern Europe. The main characteristics shared by these five countries are that they are environmentally underregulated and enforcement of existing laws is lax.

Among the examples of problems spawned by this disregard for the environment include a sheet of slime that has covered the Adriatic from Venice and Trieste to Dubrovnik and Ancona during the last few summers. Most of the agricultural and industrial waste generated by northern Italy is being discharged to the Po River, which flows into the Adriatic Sea. The slime is caused by the effects on natural algae of sunlight and rich fertilizers transported by the Po and other rivers. Once considered the most beautiful part of the Mediterranean, the Adriatic is quickly becoming one of its most polluted areas.

The Adriatic is also impacted by municipal and industrial discharges along the Yugoslavian coast. Hazardous waste disposal laws in this country are virtually nonexistent. Toxic waste production and

disposal are largely unmonitored. More than 50 percent of sewage is discharged untreated, and half the rivers are polluted. Air pollution is also a problem as municipal waste landfills are managed by burning waste, some of which is hazardous, without air pollution control equipment.

Air pollution is a serious problem in Greece. In Athens, air pollution is threatening to destroy centuries old Greek monuments. The Aegean Sea has a lot of similar problems to the Adriatic. Few spectacular oil spills over two years have sent a strong signal to the multi-million dollar Greek tourist industry. The land situation is not much better. Public Power Corporation is removing thousands of old transformers containing PCBs. Many of them had leaked and/or been stored improperly, creating a threat to groundwater. Recently, several sites with buried drums of chemical waste have been discovered, but the exact content of the drums is still unknown.

Spain is burning much of its hazardous waste in the North Sea. This practice must stop in 1995 and a new solution found in the meantime. Nuclear waste disposal is a problem in Spain also. A few recent scandals with illegal toxic dumping made headline news. The public is getting more concerned and involved. Issues such as air pollution, wetlands preservation and discharges to the oceans are just starting to take shape in Spain's everyday environmental debates.

As noted previously, many companies have moved their manufacturing operations from the north of Europe to the south. They have been attracted both by lower wages and by weaker or nonexistent environmental regulations. With unification in 1992, companies seeking to relocate to this region are likely to find fewer havens from environmental regulations. Already, Portugal is overturning a long-held corporate belief that environmental legislation and enforcement is more lax in Southern Europe than in the North. From a nearly total absence to regulations two years ago,

Lisbon authorities are about to implement some of the most advanced anti-pollution laws in Europe, setting down more stringent standards than those promulgated by the EC. Italy and Spain are likewise moving quickly to implement stricter environmental practices and standards.

Instituting such standards should help the tourism industries in these countries. All five Southern European countries generate large revenues from tourism. The health of this industry in any area depends on people's perceptions of environmental conditions in that area. To avoid downturns due to pollution-related problems (that has occurred, for example, along the Italian Adriatic Coast), greater restrictions on discharges must be enforced and cleanups of waterways and other polluted areas begin.

As Italy, Spain, Portugal and Greece become a part of integrated Europe in 1992, more stringent environmental laws will be introduced. Implementation of these stricter environmental regulations will create explosive growth in the environmental industries of these countries. The cleanup of the Po River Basin, for example, is likely to be one of the largest and most expensive cleanup projects undertaken in Europe. Yugoslavia is eventually expected to follow the path of its Southern European neighbors. In time, stricter standards will be implemented and enforcement given greater emphasis. This will not happen, however, until the current obsession with political scandals and ethnic unrest in the country ends.

Next month, Mr. Duplancic will discuss the environmental situation in Western Europe, and the role American corporations will play in the European environmental market.

About the Author

Neno Duplancic is the Director of Sites Operations and Engineering for International Technology Corp. in Martinez, CA. ■