



FAST FACTS 2007



ENVIRONMENTAL TECHNOLOGY

INTRODUCTION

Environmental Technology (ET) encompasses a wide variety of products and services including biotechnology, sanitary engineering, industrial and solid waste management, hazardous waste disposal, and air/water pollution control. Water and wastewater treatment accounts for about 40% of the total spent on ET. While the public sector provision of water, sewage, and refuse are the largest sector for ET products, also included are noise, vibration, vegetation, and pest control. Because of the adoptions of new environmental standards and compliance, the global ET market value is high and growing rapidly. In November 2005, it was valued at \$664 billion and is expected to reach \$906 billion by 2010. (Noponen) The U.S. represents the largest market for environmental technology at around 40%. Nearly 2 million Americans work in 122,000 enterprises generating over \$200 billion in revenues in the ET sector. The European Union represents about one-third of the market. Virginia environmental technology market was valued at \$4.3 billion in 1999, representing just under 10% of the national market at the time. (ITA) Top US export markets for environmental technology are Canada, Mexico, Japan, and Germany. In total, the U.S. exported well over \$30 billion in environmental technology goods and services in 2006. (DOC) While the U.S. is a leading producer of ET, it exports only about 11% of its output while key competitors (Japan, Germany, and Great Britain) export over 20%. In 2004 the global market for environmental technology was growing at about 8% in developed countries.

APPLICATIONS

- **Monitoring and Assessment** products and services used to establish and monitor the condition of the environment.
- **Pollution Prevention** equipment and processes used to prevent or minimize the generation of pollutants in the air, ground or water.
- **Pollution Control** products and technologies that render hazardous substances harmless before they enter the environment.
- **Remediation and Restoration** products and services used to render hazardous substances harmless and can burn toxic chemicals from contaminated soil, or turn sludge into safe topsoil.
- **Energy** products and services include solar, wind, and hydroelectric power generation equipment and technologies, electricity conservation technology and machinery.

EXPORT IMPORT BANK—ENVIRONMENTAL EXPORTS PROGRAM

The US Export Import Bank (Ex-Im) has an Environmental Exports Program providing support for a broad range of renewable energy and other environmentally beneficial exports. For example, Ex-Im Bank's short-term environmental export insurance policy provides enhanced short-term, multi-buyer and single-buyer insurance coverage for small businesses. The policy provides the exporter with the ability to offer credit terms to its foreign customers for up to 180 days. Ex-Im Bank also offers enhanced medium and long-term loan and guarantee support for environmental projects, products and services. For more information about Ex-Im's Environmental Exports program see: www.exim.gov/products/special/environment.html



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HOT ENVIRONMENTAL TECHNOLOGY INDUSTRIES

Mexico: Water & Wastewater Treatment

The Mexican market for municipal and industrial wastewater, water recycling, and water desalination is about \$3.5 billion and is expected to grow 5% through 2009. About 80% of demand comes from public authorities while 20% is utilized by private manufacturing and service companies. In 2007, efforts to rehabilitate 300 municipal plants in Mexico City, Puebla, and other large cities will be initiated. In the private sector, polluting factories in the following industries should be targeted: sugar, beverages, petroleum, petrochemical, paper, mining, textiles, and iron/steel. Lake Xochimilco, Lake Valsequillo, the Cutzamala water system, and the Magdalena River are on the agenda for improvement in the near term. Most U.S. water treatment products and technologies enjoy duty-free status under the North American Free Trade Agreement. (Stat-USA)

India: Hazardous Waste Management

Approximately 1,551 large and medium facilities have been identified in India within the 18 highest polluting industrial sectors. Less than ten years ago India became a signatory to several international conventions, obligating the government to effectively manage the hazardous waste within and leaving its geographic boundaries. Services and products are in demand for hazardous waste identification, hazardous waste management facilities, storage, and related emergency equipment and technology. (Stat USA)

New Zealand: Waste & Hazardous Substance

Per person, New Zealand is one of the top producers of waste and the government is considering a waste levy to reduce volume. Methane from the landfills is being converted to energy to reduce discharge. Pest and weed

control is another environmental area of concern. The stoat, or ermine, is endangering the native kiwi bird by its carnivorous behavior and methods of controlling the slaughter have met with limited success. New Zealand depends heavily on hydroelectric generation and aquatic weeds are drying up rivers and interfering with dams. A full scale effort would be financially and realistically unfeasible. Both of these problems could eventually subside with technological solutions. (Stat-USA)

China: Air Pollution

In recent years, China has seen a significant increase of air pollution due to the rapid urbanization of its cities. The province of Guangdong, estimated to have 80,000 factories and over 13 million vehicles, has the nation's highest GDP and has been the leading exporter for 10 years. Unfortunately, there is a downside to this incredible economic development. The Guangdong government budgeted 3% of its GDP from 2006-2010 and set an aggressive goal of reducing air pollution. The Blue Sky Engineering Project is valued at nearly \$10 billion consists of 160 projects in air monitoring, pollution control, waste gas treatments, and general supporting projects. U.S. firms are playing a minimal role in coming projects with most of the competition from Japan or Europe.

Best prospects for air pollution treatment in the Guangdong market include the following:

- Desulphurization equipment for power plants
- Denitrification equipment for power plants
- Catalytic converters
- Scrubbers for cement plants
- On-line monitoring instruments
- LNG equipment for vehicles

(Stat-USA)



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VEDP TRADE EVENTS

The VEDP participates in many international trade events and hosts a number of trade missions. All Virginia companies are welcome to attend.

For a complete listing of the VEDP's international trade events, please visit the "Events" tab on our website: www.ExportVirginia.org

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ADDITIONAL RESOURCES

DG Market: <http://www.dgmarket.com/>

Major International Power Projects: <http://www.power-technology.com/projects/index.html>

World Bank Projects: <http://www.worldbank.org/projects/>

UN Environment and Sustainable Development Division: <http://www.unescap.org/esd/index.asp>

The Global Directory for Environmental Technology: <http://www.eco-web.com/>

Recycler's World: <http://www.recycle.net/>

Environmental Business International: <http://www.ebiusa.com/>

Institute of Scrap Recycling Industries: <http://www.isri.org/>

Virginia Environmental Business Council: <http://www.vebc.org/>

Showcase Europe: Environmental Technologies <http://www.sce.doc.gov/us.html>

Regional Environmental Center for Central Eastern Europe: <http://www.rec.org/>

The United States-Asia Environmental Partnership (US-AEP) <http://www.usaep.org/>

ISO14001 Guide, Environ Corp. <http://www.environcorp.com/img/media/ISOpreview.pdf>

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