Appendix B: U.S. Export Promotion Activities and Environmental Technologies

COORDINATION OF FEDERAL ACTIVITIES

ederal export promotion and financing responsibilities are divided among many agencies. The agencies with primary or major missions to promote U.S. exports and interact with and provide services to U.S. companies are the Department of Commerce, the Export-Import Bank of the United States (Eximbank), the Overseas Private Investment Corporation (OPIC), and the Trade Development Agency ('IDA). The Office of the U.S. Trade Representative, the Department of State, and the U.S. Treasury are all important in developing trade policy and conducting the United States' policy agenda and negotiations. The Department of Agriculture plays a critical role in promoting U.S. agricultural exports. Other agencies may be active in some trade promotion activities, but this is not their main mission. Encouraging U.S. private sector involvement in development assistance is a feature of several U.S. Agency for International Development (USAID) programs and activities. The Department of Energy (DOE) and the Small Business Administration (EPA) are involved in export promotion to further specific agency missions. Other agencies, such as the Environmental Protection Agency @PA), may become involved because of their special expertise or responsibilities.

With so many programs and agencies, there has been growing recognition that Federal programs are poorly coordinated, often duplicative, and that an overall strategy to guide Federal activities has been lacking. Recent initiatives by Congress and the executive branch aimed at improving program coordination and developing a more strategic emphasis are discussed below. Some of the initiatives focus on environmental goods and services. Table B-1 shows selected Federal programs pertinent to promotion of environmental exports.

Trade Promotion Coordinating Committee

The interagency Trade Promotion Coordinating Committee was set up in May 1990 by former President Bush with the aim of consolidating and streamlining Federal export promotion activities. Congress, in the Export Enhancement Act of 1992, gave statutory status to the TPCC, which is chaired by the Secretary of Commerce. ¹The Export Enhancement Act also gave statutory direction for an Environmental Trade Working Group under the TPCC to develop a strategy to expand U.S. exports of environmental technologies, goods and services, and to address all issues related to export promotion and financing of environmental technologies.²

The Export Enhancement Act identifies 12 permanent members of the TPCC (see table B-2). Box B-A

¹ Export Enhancement Act of 1992, Public Law 102-429, Sec. 201. TPCC's predecessor was the Interagency Task Force on Trade. U.S. General Accounting Office, *Export Promotion: Federal Programs Lack Organization and Funding Cohesiveness*, NSAID-92-49 (Gaithersburg, MD: U.S. General Accounting Office, Jan. 10, 1992), p. 7.

² Export Enhancement Act, 1992, op.cit., SeC. 204(a).

82 I Development Assistance, Export Promotion, and Environmental Technology

Activity	Export	Market	Financing	Trade	Feasibility	Overseas	Technology
	Education	Info.	& insurance	Missions & Travel	Studies	Presence	Training & Cooperation
Department/Program*				u nuvoi			
	1	1	1	1	1	1	1
AGENCY FOR INTERNATIONAL DEVELOPMENT							
American Business Initiative		X			X		
Bureau for Private Enterprise		x					X
Market and Technology Access Project							X
U.SAsia Environmental Partnership		X		X		X	X
Energy Technology Innovation Project				x	x		X
Energy Training Project					X		X
Environmental Credit Program			X				
Environmental Enterprises Assistance Fund			X				
Energy Efficiency Centers in E. Europe						X	X
Private Investment and Trade Opportunities		X		X		x	X
Project in Development & the Environment		x			x		x
Environmental Improvement Project		x			X	X	X
Capital Development Initiative		X			X		X X
DEPARTMENT OF COMMERCE	1	1	1	1	1	1	Τ
U.S. & Foreign Commercial Service	x	x		x	x	x	
Eastern Europe Business Info. Centers	^	x		x	<u>^</u>	x	x
L. Am./Carib. Business Development Center		x		x		x	x
E. Europe Enviro. Business Consortium				^		<u> </u>	^
		X	+				x
Nat/. Enviro. Technologies Trade Initiative		X	l	X	I	I	
DEPARTMENT OF ENERGY				1			1
Export Initiative Program		x					x
Coal and Technology Export Program		x		x	x		x
Support to Energy Efficiency Centers						X	x
Committee on Renewable Energy Commerce		X		X	X	x	x
and Trade (CORECT)							
Federal International Trade and Develop-							
ment Opportunities Program					x		
··· •	·	·	-	·	·	·	
ENVIRONMENTAL PROTECTION AGENCY							
Office of International Activities		x		x		x	х
U.S. Environmental Training Institute				X			X
Regional Environment Center (Budapest)		X				X	X
Caribbean Environmt. & Developmt. Instit.		X				x	X
Clearinghouses		x					x
Technical Information Packages							x
					1	4	1
EXPORT-IMPORT BANK	1	1	X			1	
OVERSEAS PRIVATE INVESTMENT CORP.		x	x	x		1	
Environmental Investment Fund			x				
(not yet capitalized)				1		1	1
		•	•	•	•	•	•
SMALL BUSINESS ADMINISTRATION	x		x	×			
TRADE AND DEVELOPMENT AGENCY		X	1	X	X	1	l X

Table B-I-Selected Federal Programs 1	That Can Promote EGS Exports
---------------------------------------	------------------------------

• Programs in italics have substantial interagency, state, or private sector participation in managing the program.

SOURCE: Office of Technology Assessment.

discusses responsibilities of several key agencies pertinent to promotion of environmental exports.

The Export Enhancement Act calls on TPCC to, among other things, propose to the President "an annual unified Federal trade promotion budget" to support priority activity and improved coordination and eliminate funding for areas of overlap and duplication.

Implementation of the new mandate by the Clinton Administration was just beginning when this paper was completed in the spring of 1993. In its initial two years under the Bush Administration, TPCC functioned through 13 area, sector, or activity-based working groups that were chaired by a senior Commerce Department official, and were sometimes cochaired by an official of another agency.

The TPCC also setup a one-stop information center, called the Trade Information Center. The Center directs inquiries from new-to-export and new-tornarket firms to Federal agency programs for assistance. Firms must still apply separately to the individual agencies for assistance; consequently, one-stop shopping is far from fully achieved. (Another referral service, the Center for Trade and Investment Services administered by USAID's Bureau for Private Enterprise, focuses specifically on developing countries.)

Working Group on Environmental Trade Promotion

The 1992 Export Enhancement Act declared that it is the "policy of the United States to foster the export of United States environmental technologies, goods, and services. In exercising their powers and functions, all appropriate departments and agencies of the United States Government shall encourage and support sales of such technologies, goods, and services."³

Toward this end, the law directs the President to establish an Environmental Trade Working Group as a subcommittee of TPCC. Its purposes are to: 1) "address all issues with respect to the export promotion and export financing of United States environmental technologies, goods and services"; and 2) "to develop a strategy for expanding United States exports of environmental technologies, goods and services."

Membership is to include representatives from TPCC agencies and the Environmental Protection

The Department of Commerce
The Department of State
The Department of the Treasury
The Department of Energy
The Department of Agriculture
The Department of Transportation
The Office of the United States Trade Representative
The Small Business Administration
The Agency for International Development
The Trade and Development Agency
The Overseas Private Investment Corporation
The Export-Import Bank of the United States
and other agencies at the discretion of the President
a Although the Export Enhancement Act does not list EPA as a memb

a Although the Export Enhancement Act does not list EPA as a member agency, it does stipulate that EPA will partcipate in the Environmental Trade Working Group.

SOURCE: Export Enhancement Act of 1992, Public Law 102-429, section 201.

Agency. The working group chair, to be a senior Department of Commerce employee, is to assess the effectiveness of current programs, recommend improvements, and ensure effective coordination of existing programs. The chair is also to assess, with the EPA representative, the extent to which the working group's environmental trade promotion activities advance the environmental goals of Agenda 21, which was adopted by most nations at the UN Conference on Environment and Development, held in Rio de Janiero in June 1992. Agenda 21 includes specific action plans for cooperation between the developed and developing world for addressing environment and development needs in a more integrated fashion.

In April 1993, President Clinton announced that he was asking the Department of Commerce, DOE, and EPA to "assess current technologies and create a strategic plan" for environmental trade development and promotion, and technical assistance. An Interagency Working Group on Environmental Technology has been established to work on these tasks. It has three subgroups: the international (export promotion) subgroup; the technology development subgroup; and the business development subgroup (developing the internal market). The aims of the international subgroup

Table B-2—Members of the TPCC

[`]b United States-Asia Environmental Partnership, Annual Report 1992, p.3.

Box B-A-Federal Agencies and Environmental Export Promotion

Agencies with Major Export Promotion Responsibility

The Department of Commerce (DoC)

The secretary of Commerce chairs the Trade Promotion Coordinating Committee. DoC's International Trade Administration (ITA) is a principal agent of export promotion. ITA runs the U.S. and Foreign Commercial Service (US&FCS) which gathers data through foreign posts, and distributes the data through several communication media and 47 district offices (and 21 branch offices). The US&FCS provides export education, market/sector reports, and trade leads, and organizes a range of activities including individual company visits to foreign markets, trade missions, and trade fairs.

U.S. Export-Import Bank (Eximbank)

Eximbank aims to promote U.S. exports by accepting credit risks not accepted by the private sector. It also administers a small "WarChest" to neutralize the effects of foreigngovernment tied aid credits (ch. 4). The bank provides the following services: guarantees to repay commercial lenders should foreign buyers fail to pay for Us. exports; direct and Intermediary loans to foreign buyers of U.S. exports to match officially supported foreign credit competition; export credit insurance to protect exporters against nonpayment by foreign buyers; working capital guarantees to encourage lenders to make bans to small companies that need funds to produce and market goods for export. Eximbank is further discussed in the text.

The Overseas Investment Corporation (OPIC)

This Federal agency promotes U.S. private Investment In over 120 developing countries. OPIC assists U.S. investors to finance investment through direct bans and ban guarantee% insures investment projects against abroad range of political risks, and provides a range of other investor services.²OPIC has recently been attempting to establish an International Environmental Investment Fund to stimulate U.S. Investment in developing countries in environmentai areas. However, the fund has not been capitalized, Kidder Peabody has terminated its management of the fund, and OPIC is looking for a new fund manager.

The Trade and Development Agency (TDA)

The mission of this small, commercially oriented foreign assistance agency is to encourage project managers in developing and middle-income countries to use U.S. goods, services, and technologies for major capital infrastructure projects. TDA grants support studies to establish the economic, financial, and technical feasibility of proposed projects. Grants go to the host country, which must select (through a competitive process) a U.S. firm to carry out the study. Other support includes technical assistance grants; orientation visits (reverse trade missions); helping developing country officials attend symposia displaying U.S. technologies; grants to train workers and technicians; and grants to multilateral development banks for feasibility studies and other planning services. TDA's role is further discussed in the text.³

Other Agencies

U.S. Agency for Internatinal Development (USAID)

While not an export promotion agency, many USAID activities may promote U.S. exports in the broader context of its development assistance mission. USAID supports project development activities such as feasibility

¹ Export-Import Bank of the United States, Descriptive information Sheet.

² OPIC, "Investor Services", Informational Brochure.

³ U.S. TDA, U.S. Trade and Development Agency, 1992 Annual Report, February 1993.

Continued on next page

Box B-A-Federal Agencies and Environmental Export Promotion--Continued

studies, reverse trade missions, and energy and environmental training. In addition, the Bureau for private Enterprise works to develop relationships between USAID and the private sectors of the United States and developing countries, encouraging participation in both publicly and privately financed development projects.

Several USAID activities focus on EGS activities. Those most pertinent to EGS export promotion include, among others: the U.S.-Asia Environmental Partnership (described in the text); the Project in Development and the Environment (which provides technical assistance to the Near East on environmental and natural resource management); the Environmental Credit Program (loans and loan guarantees for environmentally preferable projects that promote export of U.S. technology); and the Environmental Improvement Project, setup in the fall of 1992, which aims to reduce urban and industrial pollution in the ASEAN countries. The Environmental Enterprises Assistant Fund receives USAID funding to promote direct loans and equity to promote the dissemination of environmental technologies in developing countries. USAID's role in environmental ODA and environmental export promotion is discussed in more detail in chapter *5*.

Departmenf of Energy (DOE)

Several DOE programs promote exports of U.S. energy efficiency technologies and dean energy technologies. These include the CORECT progam to promote export of renewable energy technologies (see later), and the Coal and Technology Export Program. DOE also provides support to the Energy Efficiency Centers in Eastern Europe. The Export Initiative Programs (in DOE's Offices of International Affairs) promotes the export of energy-related goods, helping firms identify export opportunities and financing, and coordinating activities with other agencies. DOE also cooperates with developing and middle-income countries to transfer dean energy and energy-efficiency technologies. The 1992 Energy Policy Act authorized major new DOE/USAID efforts to transfer innovative U.S. energy-efficiency and environmental technologies to developing countries, but funds for these programs have not been appropriated.

Environmental Protection Agency (EPA)

Although not an export promotion agency, EPA is a member of the Environmental Trade Working Group of TPCC and several EPA offices are involved in technology cooperation activities pertinent to export promotions EPA was Instrumental in the launching of the U.S. Environmental Training Institute (USETI, discussed subsequently). Foreign companies can use EPA's Vendor Information System for Innovative Treatment Technologies (VISITT), a database containing information about 154 U.S. companies' technologies to treat contaminated groundwater, soils, sludges, and sediments.

EPA, USAID, and DOE cosponsor the Environmental and Energy Efficient Technology Transfer Clearinghouse (managed by a nonprofitt business organization, the World Environment Center). EPA helped set up three energy-effiency centers in Eastern Europe; with DOE, it will jointly fund and administer a new center in Moscow. EPA also helps support the Caribbean Environment and Development Institute and the Regional Environment Center for Central and Eastern Europe, which promote technology and policy cooperation. EPA provides funds for the only current environmental attache (export promotion is not the main thrust of this person% responsibilities, however).

⁴ EPA, Global Markets for Environmental Technologies, op. cit.

⁵ From discussion with Julia Gallagher, Office of International Activities, U.S. Environmental Protection Agency, Feb. 5, 1993; and U.S. Environmental Protection Office, Task Force on Technology Cooperation and Export Assistance, Global Markets for Environmental Technologies; Defining a More Active Role for EPA Within a Broader U.S. Government Strategy, EPA 160-R-92-001, December 1992.

appear similar to the environmental trade working group called for in the Export Enhancement Act.

The United States-Asia Environmental Partnership (USAEP)

USAEP is an export promotion and development assistance program aimed at helping countries in the Asia-Pacific region to solve environmental problems using U.S. environmental goods and services. It is intended to be a partnership on at least three levels: between different government agencies, between government and the private sector, and between Asia and the United States. It is too early to measure USAEP'S success.

So far, USAEP is funded primarily by discretionary funding from USAID. USAID plans to contribute \$100 million in core funding over 5 years, ⁴ although this commitment can be withdrawn any time. USAEP also is in the early stages of identifying alternative sources of funds and other resources, both public and private.

On the government side, USAEP includes over 20 U.S. government agencies. During the Bush Administration, coordination was facilitated through a special TPCC working group, co-chaired by USAID and the Department of Commerce. USAEP is intended to provide "one-stop shopping" for all areas of U.S. government assistance, including technology show-casing, training and technology transfer, export financing and risk insurance, and feasibility study funding. A small secretariat provides technical assistance and facilitates public-private interaction.

USAEP activities are intended to encourage technology cooperation between U.S. firms and Asian businesses. By promoting sales, licensing, and joint ventures, it hopes to help Asian firms meet environmental requirements while achieving operating efficiencies. It also seeks to transfer U.S. technology and know-how about environmental and energy-efficient infrastructure for publicly sponsored infrastructure projects in Asia. It aims to support training and other human resource development, as well as institutional development related to environmental technology transfer and networking between Asian and American organizations. USAEP in addition is seeking to support protection of biodiversity.

By late 1992, the Secretariat had 10 projects on-line and 10 in the planning process.⁵For example, it plans to set up an Infrastructure Advisory Service to coordinate U.S. government financing, providing onestop financing to help U.S. companies participate in development infrastructure projects. It is also planning a service to gather, organize, and disseminate information about Asian environmental trade and investment opportunities, in conjunction with other business information services.

USAEP is in the process of placing "business representatives" in nine Asian countries to identify opportunities and contacts for U.S. companies. It also may support the personnel costs of placing an environmental infrastructure specialist in the Asian Development Bank and perhaps the World Bank to monitor Asian environmental projects.

USAEP also has an arrangement with the National Association of State Development Agencies (NASDA) called the USAEP/NASDA Technology Fund, launched Oct. 1, 1992. Through NASDA, state agencies and local trade organizations may apply to USAEP for matching funds (\$10,000-\$30,000) for U.S. businesses to develop trade opportunities in Asia. Proposals that target specific commercial opportunities in less developed Asian nations, including participation of several companies, and involving small or mediumsize enterprises, will be given greater consideration. Use of the funding is flexible and can include shipment of demonstration equipment, travel expenses, training, technology adaption, etc. As of March 1,1993, the new environmental fund awarded grants totaling \$383,000 for 18 projects. (See subsequent discussion of State coordination.)

Committee On Renewable Energy Commerce and Trade (CORECT)

CORECT was setup in 1984⁶ to coordinate Federal policy and programs to promote exports in the renewable energy field. Chaired by the Secretary of Energy, CORECT includes 14 Federal agencies and

⁴ United States-Asia Environmental Partnership, Annual Report 1992, P.3.

^{5 &}quot;US-AEP Program Review and Status Report, cable transmitted Nov. 30, 1992, from USAID Asia Bureau to all posts in Asia.

⁶ Renewable Energy Industry Development Act of 1983, Public Law 98-370, amended by the Renewable Energy and Energy Efficiency Technology Competitiveness Act of 1989, Public Law 101-218.

industry (often represented through the Export Council for Renewable Energy (ECRE)).

CORECT's structure encourages a close relationship between Federal agencies and industry. Industry representatives influence the priority setting and program planning processes of CORECT through frequent "Focus Group Meetings" with Federal agency officials. Once a task is identified as meriting support, each agency can commit resources depending on its own mission and expertise. Although Congress has given funds to DOE for administering the process,⁷ each agency maintains control of its own resources.

It is difficult to evaluate the impact of CORECT on exports of U.S. renewable energy technologies because public trade data is incomplete and the industry reveals little about its trading activities.⁸ A recent U.S. General Accounting Office report⁹ notes that CORECT did not meet a congressional deadline to formulate a plan for increasing renewable energy exports. Still, CORECT has identified barriers to exporting, investigated markets, and sponsored trade promotion events, which could comprise basic components of a trade plan. CORECT and ECRE have established a uniform application form to make it simpler for firms in the renewable energy field to apply for financing from USAID, Eximbank OPIC, and TDA. GAO also concluded that CORECT had been successful in pulling financial resources from Federal agencies and industry for trade development activities, as well as from multilateral institutions, and has been instrumental in developing new financing mechanisms. U.S. renewable energy technology firms must still, however, compete against very competitive foreign financing and subsidization schemes.

Recently, there has been interest in extending CORECT's approach to include energy efficiency, and DOE is planning to establish a parallel committee or a subcommittee of CORECT for this purpose.

TRADE DEVELOPMENT AND TRAINING

Trade development programs cultivate the potential for trade through such activities as trade missions, feasibility studies, reverse trade missions, and training. The Federal government is encouraging U.S. firms to provide training to developing country officials as a way to "promote the transfer of environmentally sound technologies and management principles."¹⁰ Such training can help establish commercial relations between U.S. firms and developing countries, and may help promote sales of U.S. technologies.

■ U.S. Trade and Development Agency¹¹

As discussed in Box B-A, TDA supports feasibility studies for development projects. TDA funds must be used to hire U.S. firms to carry out feasibility studies and other planning services. The host country chooses the U.S. company, however. Because TDA-funded feasibility studies are conducted by U.S. firms, there is abetter possibility that the firms will steer their clients to U.S. technologies for the subsequent development contract, than if foreign firms conducted the study.

TDA does not fund a study for a project unless U.S. goods, services, and technology in the sector are considered internationally competitive. It relies on consultations with technical advisers, other agencies and private sector groups to make this judgment. TDA-funded studies focus on infrastructure development in such sectors as energy, wastewater treatment, transportation, and telecommunications. In fiscal year 1992,33 percent of TDA's funding went to energy and natural resources projects; 12 percent went to water and environmental projects.¹²

TDA's approach can be advantageous to U.S. firms in the energy/environmental sector. In 1987, Black and Veatch International of Kansas City won a contract for a study for a power plant in Bang Pakong, Thailand. The Electric Generating Authority of Thailand (EGAT) had received a grant of \$350,000 from TDA for the study. This led to an additional \$30 million revenue for

⁷Congressional appropriations for CORECT administration were \$1.48 million in 1991,\$2 million in 1992, and \$2.5 million in 1993.

^{&#}x27;This section is drawn from U.S. General Amounting Office, *Export Promotion*, Federal Efforts to Increase Exports of Renewable Energy Technologies, GGD-93-29 (Gaithersburg, MD: U.S. General Accounting Office, Dee. 1992).

⁹ Ibid.

¹⁰ U.S. Environmental Training Institute, "U.S. Environmental Training Institute: Catalogue of Courses, 1992". 11Formerly the Trade Development Program.

¹² U.S. Trade Development Agency, 1992 Annual Report, Washington DC, 1993.

Black and Veatch in further engineering services contracts with EGAT, and because of pro-U.S. engineering specifications, a \$64.6-million contract was awarded to General Electric for two 300-MW combined cycle gas turbine power plants. This further led to GE winning a similar contract in Rayong, Thailand. Black and Veatch was also selected as project management consultant for an integrated pulp and paper mill project funded at \$200 million.¹³

The TDA funds reverse trade missions. This gener-m ally means paying for foreign procurement officials to travel to the United States and visit U.S. companies and plants, where they are exposed to U.S. technology. TDA also provides funds for foreign officials to come to U.S. trade and technology shows, and provides grants for training. These grants, which amounted to \$2.7 milion in fiscal year 1992, can sweeten U.S. bids for development projects.

TDA's fiscal year 1992 appropriation was only \$35 million, operating with a staff of under 40 people. For 1993\$40 million was appropriated. Considering its small size, the program is judged by many to yield high returns in terms of exports per tax payer dollar. TDA estimates that for every dollar of TDA program expenditure, over \$25 are returned to the U.S. economy in export income.¹⁴ However, some of those exports (it is not known what percent) are themselves financed by other U.S. government agencies such as USAID and Eximbank, so the ratio of outlays received to U.S. government program expenditures would be lower. The General Accounting Office is currently conducting an assessment of the effectiveness of TDA's activities.

U.S. Environmental Training Institute

This organization encourages U.S. firms to provide training courses to qualified public and private sector officials from developing countries. Companies are responsible for funding operating costs and sponsoring courses. EPA, USAID, and TDA provided some start-up funds for the Institute, which is a nonprofit organization. EPA estimates that when in-kind contributions are counted, the Federal government support exceeds \$1 million.¹⁵

The company that provides the training has an opportunity to showcase its technology and promote its adoption in developing nations. Companies are chosen on the basis of their technological track record and training capacity. Their technologies must be proven. EPA and other Federal agencies advise the Institute. If the course is approved, it is listed in a brochure and circulated through embassies and commercial offices. For 1993, 16 training courses are planned, including such topics as environmental remediation of nuclear sites, industrial wastewater treatment, clean air technologies, air pollution control technologies.¹⁶

EXPORT FINANCING FOR EGS EXPORTS

Exporting imposes heavy demands on cash flow. Small and medium-sized EGS firms may not be able to finance their own exports. Without a strong cash flow and collateral base, private banks will not finance export transactions. Comparatively few U.S. banks or private sector institutions are involved in export financing. The reasons for their lack of interest maybe similar to those that prevent companies from export-

¹³ Priscilla Rabb Ayres, Director, Trade and Development Program, testimony at hearings before the House Committee On Foreign Affairs, Subcommittee on International Economic Policy and Trade on "Reauthorization of the Trade and Development Program," Mar. 5, 1991, printed in *Foreign Assistance Legislation for Fiscal Years 1992-1993 (Part 6)*, p. 82.

¹⁴ Unpublished information provided by TDA, Feb.8, 1992, and TDA 1992 Annual Report. The Annual Report gives the estimate Of OVer 25:1 (p. 2). TDA program expenditures through fiscal year 1990 were \$160 million (Annual Report, p. B1.) TDA reports \$4.6 billion in sales by U.S. companies through fiscal year 1992 that were associated with TDA projects (Annual Report, p. 2); TDA has informed OTA that \$4.3 billion of those sales were associated with TDA projects funded no later than fiscal year 1990. If the sales associated with projects funded through 1990 (\$4.3 billion) are divided by program expenditures through 1990 (\$160 million), the ratio is about 27:1. It is likely that as additional pre-1991 projects mature, additional U.S. sales associated with such projects will occur, thus increasing the ratio of sales to program expenditures for expenditures through 1990.

In fiscal year 1992, TDA obligated a total of \$42.9 million, of which \$39.4 million, or 92 percent, was for program activities (including \$8 million in funds transferred from other agencies), and \$3.5 million, or 8 percent, was for operating expenses.

¹⁵U.S. Environmental Protection Agency, Global Markets for Environmental Technologies: Defining a More Active Role for EPA Within a Broader Government Strategy, December 1992, p. D-5.

¹⁶ photocopy sheet from US-ETI, "1993 USETI Schedule of Training Courses."

ing: a large domestic market, geographic location, and risk and complexity of financing foreign transactions. Also, many banks closed their international divisions in the 1980s in response to the debt crisis in the Third World.¹⁷

While European SMES have considerable access to export financing, public financing programs in this country are limited.¹⁸ Federal export financing is comparatively small and difficult to access, especially for small companies. Efforts are being made, though, to make federal export financing more available to SMES.

Export-Import Bank of the United States

U.S. government assistance for nonagricultural exports is provided primarily by the Export-Import Bank of the United States (Eximbank). In fiscal year 1992 Eximbank assisted \$14 billion in exports.¹⁹ As will be discussed in more detail in the final report of this assessment, U.S. firms get less government help with export financing than firms in many major competitor countries.²⁰

Firms have complained that Eximbank is slow in processing applications and disbursing approved financing, that it is difficult to apply for Eximbank loans, and that financing coverage in some cases is inadequate.²¹ Eximbank has been trying to address these concerns, especially for small business.²² Eximbank

traditionally relied on commercial banks to reach small business. However, U.S. banks have been cutting back on international lending, thus lessening access to small business. In recent years perhaps about 13 percent of Eximbank's assistance (by volume of exports assisted) has gone directly to small business.₂₃

Eximbank has (among other things) set up a high-level administrative unit responsible for small business, streamlined approval of working capital loan guarantees of less than \$2.5 million, and improved financing coverage in some cases. Under its city/state program, set up in 1987, state and city development and finance agencies can help firms to apply for Eximbank assistance and can add their own financing to Eximbank's. Eximbank plans to expand its five regional offices (which now handle only export credit insurance) to full-service offices (which would also handle loan guarantees and direct loans).

In the past, Eximbank did not give special attention to EGS exports. However, the Export Enhancement Act of 1992 specifically requires Eximbank to encourage "the use of its programs to support the export of goods and services that have beneficial effects on the environment or mitigate potential adverse environmental effects." Eximbank is also to report annually on this effort.²⁴ Pursuant to the statute, the Bank's board has appointed an officer to advise it on ways to use Eximbank programs to support EGS exports.²⁵

21 Access to Eximbank programs is also impeded, especially for small business, because, as already discussed, there is no "one-stop shopping" for export services; firms must seek assistance individually from Eximbank and other agencies involved in export promotion.

²² The information in this and the next paragraph is taken from U.S. Congress, General Accounting Office, *Export Finance: The Role of the* U.S. Export-Import Bank, GOD-93-39 (Gaithersburg, MD: U.S. General Accounting Office, Dec. 23, 1992), pp. 22-29; and Export-Import Bank of the United States, *Report to the U.S. Congress on Export Credit Competition and the Export-Import Bank of the United States for the* PeriodJan. 1,1991 through Dec. 31,1991 (July 1992), pp. 27,32-35.

²³ GAO reported figures of 12, 14, and 13 percent, respectively, for 1989, 1990, and 1991, with the qualification that some of the data was not verified. U.S. Congress, General Accounting Office, *The U.S. Export-Import Bank: The Bank Provides Direct and Indirect Assistance to Small Businesses*, *GGD-92-105* (Gaithersburg, MD: U.S. General Accounting Office, Aug. 21, 1992), pp. 2-5, 10. GAO excluded financing provided to small business subcontractors working through larger businesses that receive Eximbank financing. Eximbank's figures, which include indirect financing, are 16, 19, and 18percent, respectively, for the same years.

24 The Export Enhancement Act of 1992, Public Law 102-429, Sec. 106.

25 Eximbank, Annual Report 1992, p. 8.

¹⁷ Martha E. Mangelsdorf, "Unfair Trade," *INC.*, vol. 13 (April 1991), p. 33.

¹⁸ William E. Nothdurft, Going Global: How Europe Helps Small Firms Export (Washington, DC: Brookings Institution, 1992) PP. 55-57. 19 Eximbank, Annual Report 1992, p. 2.

²⁰ One indicator is difference in volume of exports supported. One report for 1989 showed U.S. coverage at about percent of total exports, compared with 32 percent forJapan, 4 percent for Germany, 21 percent for France, and 20 percent for the United Kingdom. First Washington Associates, Ltd. (Arlington, VA), "ComprehensiveD irectory of the World's Export Credit Agencies" (October 1991). Another indicator might be numbers of offices. Eximbank has five regional offices in the United States; by contrast, France has 22, and Canada 8, domestic offices. Eximbank has no overseas offices. Japan, in contrast, has 16, including Washington DC, and New York City.

PRIVATE SECTOR ATTEMPTS TO COORDINATE SERVICES

The U.S.-ASEAN Council for Business and Technology

The U.S.-ASEAN Council for Business and Technology aims to promote trade and investment between the United States and member states of the Association of Southeast Asian Nations (ASEAN).²⁶ The Council, which is a private nonprofit organization, works with Federal government agencies to help them strengthen their support to U.S. business, and does receive some funding from the Federal government to pursue some of its activities. It also provides trade information for and facilitates contacts between U.S. and ASEAN firms. The Council has identified environmental goods and services as a major opportunity for U.S. business in the region and as a result has targeted many of its activities toward this.

Among other activities, the Council has issued a publication on available export assistance²⁷ and has conducted environmental business development seminars to educate companies about U.S. government assistance programs. It has run several EGS trade missions to ASEAN countries, involving the participation of several Federal agencies in the missions and follow up.

The Environmental Business Council

The Environmental Business Council seeks to developers trade opportunities for its members. EBC was started in 1990 as a regional organization, based in New England where it has sought to expand trade opportunities by combining the resources of local EGS firms, academic and technological institutions, and governments (especially the State of Massachusetts).²⁸ The Council plans to become a national organization, operating through chapters in regions where environmental businesses are clustered. To that end, an Environmental Business Council of the United States was formed in February, 1993. In June of 1993, EBC-US hosted a meeting to discuss possible strategies and directions for such an organization.

In March of 1992, EBC signed an agreement with the Confederation of Mexican Industrial Chambers (CONCAMIN), formalizing technology cooperation between Mexican industry and EBC. EBC hopes to duplicate this arrangement in other markets, such as Eastern Europe. EBC has used the U.S. Environmental Training Institute (discussed previously) to help organize Environmental Risk Assessment Training for Mexican officials and plans to expand its cooperation with DOC, DOE, EPA, and other agencies.

The Environment Technology Export Council

ETEC is a nonprofit business association of over 30 corporations, six national laboratories, and four trade associations. Established in 1992, it aims to help the U.S. pollution prevention industry better exploit global market opportunities. It plans to do this by developing innovative export financing programs for developing country markets; "synthesizing' both public and private sector market studies to help exporters learn about business opportunities; partnering with government agencies to enhance research and travel support for U.S. firms; and initiating pilot projects in countries to obtain and distribute environmental policies and regulations. A primary function of ETEC is to serve as a network for its members. In its nascent form, it is too early to assess what sort of impact ETEC will make.

STATE PROGRAMS

States are increasingly helping local businesses gain access to federal export promotion programs and are providing their own export promotion services to these businesses. States are assuming greater responsibility for helping companies that are new to exporting. With cooperation from SBA and the US&FCS, state and local governments have taken on a larger share of responsibility for export awareness and education. The states now provide a wide range of export promotion services to businesses. In 1990, they had over 335

26 ASEAN member states are Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore, and Thailand.

²⁷ Environment Money: The International Business Executive's Guide to Government Resources. This publication provides information on U.S., foreign and multinational programs of use to exporters.

²⁸ Discussion with Donald Connors, Chairman, Board of Directors, Environmental Business Council, Jan. 5, 1993.

representatives in overseas offices-an average of 6.5 representatives per state.²⁹

A few states have special export promotion efforts focused on environmental goods or closely related sectors. Several states have prepared directories of their environmental companies that can be made available to overseas representatives, the US&FCS, and potential customers.³⁰

The Minnesota Trade Office has its own environmental trade specialist who organizes trade events, and counsels local environmental companies on export marketing, export opportunities, and export financing. A primary responsibility of this person is to coordinate with the local US&FCS district office and other Federal trade promotion programs. The MTO'S environmental trade specialist has visited most of the 200 companies listed in its Environmental Trade Directory, which is targeted at foreign markets. The fact that states can have such close relationships with companies, and often get to know their capabilities and interests, means that they can both help them directly with their own export promotion programs, and perhaps better connect them to Federal services.³¹

The State of California has separate programs to promote and finance exports of both energy and environmental technologies, as well as an export financing office that is not sector specific. The California Energy Technology Export Program, administered by the State's Energy Commission, promotes exports of energy technologies, including renewable energy technologies and energy efficiency technologies. By focusing on narrowly defined markets, both technologically and geographically, the program seeks to help California's energy firms fill niche demands.³² It conducts detailed studies of markets, ³³ organizes trade and reverse trade missions and other customer-buyer forums, and offers technology cooperation to developing middle income countries.

The California Environmental Technology Partnership, which is administered by the State's Environmental Protection Agency, was initiated in November 1992. The program aims to promote environmental technologies both nationally and internationally. The partnership will identify markets and provide export assistance to environmental firms located in California.

In addition to these sector specific programs, the California Export Finance Office helps companies³⁴ finance exporting; it is not sector specific. The export finance office states that it has supported over \$500 million of trade since 1985 through its export financing office.³⁵ It offers loan guarantees and short term loans.

As gateways to Federal export promotion, states either make bilateral arrangements with federal agencies, or they can access Federal resources through such organizations as the National Association of State Development Agencies. In a 1990 review of state export promotion programs, all states reported having good relationships with their US&FCS counterparts; over a quarter said they had developed specific Federal/state cooperative plans and memoranda of understanding. ³⁶ States said they were cooperating with district offices in the following areas:

- recruiting for Federal and state-sponsored events, such as trade fairs and trade missions;
- cosponsoring trade shows, export seminars, conferences and meetings, and cohosting foreign buyer missions, etc.;
- calling on potential and active exporters;
- exchanging trade leads, opportunities, and market information;
- cooperating on newsletters and publications;

²⁹ The National Association of State Development Agencies, Introduction and Analysis; State Export Program Database, 1990, (NASDA: Washington, DC, 1990), pp. 12-13.

³⁰ E.g., Colorado, Maryland, Massachusetts, Minnesota, Oregon.

³¹ Discussion with Karin Nelson, Oct. 13, 1992, Minnesota Trade Office.

³² Personal Communiatio.% Tim Olsen, Program Manager, Energy Technology Export Program, September 31, 1992.

³³ ETEP either hires a contractor or sends its own staff to research a market and uncover project opportunities, and then disseminates this information to relevant companies.

³⁴ Not specifically EGS companies.

³⁵ California World Trade Commission, Newsletter, Winter '92-' 93, p.1.

³⁶ National Association of State Development Agencies, Introduction and Analysis; State Export Program Database, 1990 (NASDA: Washington, DC, 1990), pp. 12-13. NASDA is currently updating this material.

- developing new programs;
- legislation and trade policy analysis;
- collocating trade specialists and sharing mailing lists.³⁷

States also cooperate with Eximbank to bring Federal export financing to local businesses. In 1987, Eximbank developed the City/State Program, in which participating states assist Eximbank in marketing its programs and carry out pre-application processing to expedite turnaround times.³⁸ As of May 1992, this program had been extended to 22 states.³⁹

National Association of State Development Agencies

States also cooperate with USAID through the National Association of State Development Agencies. In September 1992, as mentioned previously, NASDA jointly established the Environmental/Energy Technology Fund with US-AEP. As of March 1, 1993, the fund had approved 18 projects. For example:

THE MONTANA MAPPING TECHNOLOGIES PROJECT IN SOUTH AND SOUTHEAST ASIA

The NASDA/US-AEP fund is providing \$20,000 out of a total cost of \$51,200 for three workshops to introduce integrated digital mapping technologies to Asian countries. Montana company GeoResearch is the organizer of the workshops and has already conducted two of the workshops in Malaysia and Nepal, of which the former resulted in the immediate sale of two receivers, software, and other equipment.

STATE OF UTAH/TERRATEK, INC. PROJECT IN MALAYSIA AND PHILIPPINES

The fund is providing \$20,150 to Utah for two workshops in the above countries to promote the sale of Terratek's test kits for environmental contaminants in food crops.

Other projects involve grants to promote mid-American waste management and recycling technologies in the Philippines; Alaskan and U.S. energy technology to Mongolia; and U.S. textile technologies to Indonesia and Thailand.

In 1988 NASDA also established a Business Development Seed Fund with USAID "to encourage state development agencies. . .to undertake innovative projects that promote business activity with firms in developing countries and Eastern Europe.⁴⁰ The seed fund operates along the same lines as the US-AEP fund, except that cooperation is directly with USAID, and it is neither Asia, nor EGS specific. Through NASDA, USAID provides grants of up to \$20,000 on a matching basis to state and sub-states for business development projects.

NASDA is also currently working with USAID and the Trade and Development Agency to disseminate to U.S. companies information about procurement opportunities through NASDA and the states.

³⁷ Paraphrased from the National Association of State Development Agencies, *Introduction and Analysis; State Export Program Database,* 1990 (NASDA: Washington DC, 1990), pp. 12-13.

³⁸ Ibid., p. 37.

³⁹ Telephone inquiry to Eximbank marketing division, Feb. 2, 1993.

⁴⁰ NASDA, "NASDA/USAID Business Development Seed Fund, " Information Sheet.