

US-AEP Vietnam

FY 2004 Work Plan

Country Strategy

Background

Vietnam has experienced dramatic changes in its transition from a centrally planned to a market-oriented economy in 1986. Over the decade 1991-2000, the country has made remarkable progress in reducing poverty by 33 percent, one of the sharpest declines of any developing country. During this period, Vietnam sustained over 8% GDP growth per annum while the industrial sector grew at approximately 14% per annum.

Despite a devastating war for national independence, the population of Vietnam has tripled from 25 million to nearly 80 million over the past 50 years, making Vietnam one of the most densely populated countries in Asia. Since the early 1960s, refugees and others seeking economic opportunities have migrated from rural to urban areas, thereby overwhelming antiquated infrastructure and limited public services. Today, Vietnam's urban population grows at a staggering 4.5% per year. Overcrowding, unplanned land use (including expanding residential areas next to highly polluting factories), traffic congestion, and polluted waterways are the most visible signs of infrastructure overload.

Vietnam's explosive economic growth has come at the expense of natural resources, biodiversity and environmental quality of water and air, particularly in densely populated coastal areas. These environmental challenges pose opportunities for US-AEP assistance in Vietnam:

- The capacity of environmental institutions remains relatively weak at national, provincial and local levels. Authorities have recently reorganized the National Environment Agency, but limited financial resources, skills and organizational management continue to hinder effective environmental governance.
- Coastal ecosystems that support cities with food and water are being degraded by root causes stemming from the urban core, such as coastal tourism, shrimp aquaculture, and oil/gas development. In addition, these sectors, which are driven by the global market, come with significant social and environmental impacts to ecologically sensitive areas.
- Major cities in Vietnam are increasingly suffering from air pollution. Since traffic congestion outpaces the expansion of roads, pollution problems could get much worse unless improved air quality management and cleaner fuel/vehicle standards are introduced.
- Municipal water and sanitation systems are overburdened or non-existent. Non-governmental alternatives such as community participation, privatization of public services, and corporate environmental stewardship create alternatives for more resource efficient, cleaner and healthier cities.
- Industrial facilities operate with substandard environmental management systems and within a weak regulatory framework. Industrial wastewater is oftentimes discharged untreated into sewer drains while few alternatives to properly manage toxic and hazardous wastes are available to industry.

Decision-makers in Vietnam are seriously challenged with how to balance economic development and environmental protection. For economic development to be truly sustainable, environmental concerns must be incorporated into investment planning systems. This requires vision and support. Under these circumstances, Vietnam has requested external assistance to strengthen environmental policy and governance, improve environmental conditions, and more efficiently manage limited resources.

Vietnam Country Strategy

Since 1999, US-AEP has been working in Vietnam to assist government agencies, non-governmental organizations and private sector interests to solve key sustainable development challenges. To achieve this objective, US-AEP/Vietnam identifies in-country environmental leaders and creates partnerships with US and Asian counterparts, primarily through exchanges, workshops and short-term technical assistance. Capitalizing on the flexibility inherent in US-AEP programming, US-AEP/Vietnam designs and implements activities that are responsive, timely and adaptive. More often than not, US-AEP leverages additional resources and/or coordinates with other bilateral and multilateral donors (e.g. World Bank, Asian Development Bank, Danida).

The Goal of US-AEP is Environmentally Sustainable Growth and Improved Quality of Life.

The Strategic Objective of US-AEP is Cleaner Cities and Industries in Asia.

In Vietnam, principal US-AEP implementing partners include USEPA, NOAA, Louis Berger (the "TSSC"), PADCO, ICMA, IIE, CSG, and TAF. In FY04 US-AEP/Vietnam also plans to develop a new partnership with the American Water Works Association (AWWA). During FY04, US-AEP/Vietnam will implement ten new and on-going activities targeting the three Intermediate Results (IRs) of US-AEP:

1. Improved Environmental Governance
2. Improved Urban Management
3. Improved Industrial Management

Improved Environmental Governance

Strengthening environmental enforcement remains a central challenge for Vietnamese policymakers. Technical, institutional, capacity and funding limitations prevent Vietnam's national and provincial agencies from promulgating enforceable standards, and monitoring and enforcing compliance. Despite on-going efforts to reorganize environmental institutions and develop improved policy frameworks, much work remains in developing an effective regulatory framework that will address growing urban and industrial pollution. US-AEP/Vietnam's strategy for strengthening enforcement and environmental governance is to work with key leaders on innovative approaches that leverage economic incentives and citizen involvement.

Creating pollution charge programs will enable the government to link revenue generation to industrial growth, creating new opportunities for environmental investments in technology upgrades and urban pollution systems through national- and provincial-level revolving funds. Beginning in FY02, US-AEP/Vietnam worked with national-level agencies to support the establishment of the Vietnam Environmental Protection Fund. In FY04, US-AEP will continue this work, in part by focusing on support for the establishment of a pollution charge program in Hanoi that would link with national- and city-level funds, providing resources for use in strengthening institutional capacity and private sector investment in the environment.

Promoting citizen and community participation in environmental management provides additional resources for compliance monitoring, resource protection and restoration, enforcement through citizen suits, and awareness raising. Recognizing the strength of communities and citizens, US-AEP/Vietnam has created a range of activities in community involvement that address water pollution, solid waste management and coastal zone management. While catalyzing stakeholder support is one component of these projects, each has a specific technical focus and plan for strengthening agency capacity for increased citizen and community involvement and facilitating greater integration and cooperation between line agencies for improved environmental governance.

In FY04, US-AEP will support improved environmental policy and governance through specific projects that promote economic incentives and citizen participation. While each project aims at protecting a specific resource or city, policy and planning approaches developed by local partners in cooperation with U.S. or Asian counterparts are meant as pilots that can be expanded and replicated in Vietnam and throughout the region.

In FY04 US-AEP will support improved environmental governance through:

- Strengthening Environmental Institutions: Pollution Charges and Environmental Funds
- HCMC Canal: Developing a Community-based Environmental Management Process
- Improved Oil Spill Contingency Planning in Saigon River

Improved Urban Management, Technologies and Resource Efficiencies

Vietnam's steady urbanization and industrialization fuels an unplanned and largely unregulated growth of factories, vehicles and households in densely populated and sprawling urban areas. Untreated industrial effluents and emissions, increasing volumes of traffic and roadside air pollution, and rising incidences of asthma-related illnesses and deaths among children and the elderly are symptoms of Vietnam's rapid urbanization.

USAID/Vietnam recognizes the far-reaching benefit of promoting economic growth and protecting human health, social and environmental conditions. To improve the quality of life in urban areas, US-AEP will support programming for clean air, access to potable water, and solid waste management. US-AEP activities will focus on building capacity of key agencies to improve management of hazardous wastes and promote sustainable tourism development.

In FY04 US-AEP will support improved urban management through:

- Cleaner vehicles and fuels
- Certification and Training of Water Supply and Wastewater Operators
- Socialized Solid Waste in HCMC
- Sustainable Coastal Tourism

Improved Industrial Management

With the adoption of the market economy (Doi Moi) in 1987 and the commencement of the US-Vietnam Bilateral Trade Agreement in 2001, a significant proportion of Vietnam's economic growth relies upon foreign trade and foreign direct investment. Export-driven sectors such as oil/gas, textiles/garments/footwear and chemicals grew at 20% per annum over the past decade. Meanwhile, global market pressures are influencing the private sector, namely multinational corporations, to adopt stricter environmental management systems to improve environment, health and safety of workers and surrounding communities.

Within this emerging trade and investment environment, the promotion of state-owned enterprises (SOEs) remains a government priority. As recently as 1999, the Prime Minister announced plans to reorganize and consolidate SOEs "to make them more efficient and to maintain their leading role in the economy." While much has been done to reform SOEs to become more independent and economically viable within the global market, SOEs contribute over half of industrial GDP in Vietnam. In light of these developments, US-AEP/Vietnam formed a strategic partnership with the Ministry of Industry (MOI) to support their efforts to promote sustainable development in highly polluting industries such as the chemical and textile sectors.

Since 1999 US-AEP/Vietnam has been promoting improved industrial management by sharing best international practices and promoting clean environmental technologies. In FY04, this support includes technical assistance for the development of national guidelines for chemical, textile and electricity sectors, the establishment of an independent organization to promote "Responsible Care" in the chemical industry, and the introduction of eco-industrial development (EID) in Hanoi and HCMC. US-AEP will also continue its support for voluntary corporate environmental initiatives, such as our partnership with NIKE and Texas Tech University to develop new techniques to recycle scrap leather waste for the athletic footwear industry.

To assist Government of Vietnam's (GVN) objective of reforming subsidized state-owned water utilities to operate as profitable state-owned commercial enterprises, US-AEP will embark on a new, multi-year activity to promote efficiency, transparency and improved service in the water supply sector. Following on US-AEP's regional Certification and Training Support for Professional Associations in Water (CATSPAW) project, US-AEP will support a partnership between American

Water Works Association (AWWA), Southeast Asia Water Utilities Network (SEAWUN) and Vietnam Water Supply and Sewerage Association (VWSA) to deliver affordable piped water through a sustainable certification and training program for water supply and wastewater treatment facilities.

and improved management and disposal of toxic and hazardous wastes, particularly persistent organic pollutants (POPs)

In FY04, US-AEP will support improved industrial management through:

- Strengthened Environmental Management Planning for Industry
- Support for Voluntary Environmental Stewardship through Corporate Leadership
- Proper Management and Disposal of Hazardous Wastes

Relationship to USAID and other Donor Programs

Under the FY2001-2003 Management Framework for Vietnam, USAID has three strategic objectives in Vietnam that are of high priority to the Vietnamese Government:

- Accelerated transition to a more open market-based economy
- Improved access to services for selected vulnerable groups
- Improved sustainable urban/industrial environmental management

The US-AEP program is the foundation of the third USAID/Vietnam strategic objective: improved sustainable urban/industrial environmental management. This objective is consistent with the U.S. Mission Performance Plan (MPP) for Vietnam strategic goal of social and environmental issues. US-AEP assists the GVN to develop sound environmental policy and to close the gap between policy and execution. US-AEP's unique public-private partnership approaches have also introduced environmental technologies for industry and increased the competitiveness of Vietnamese products by introducing best international environmental practices and voluntary guidelines for environmental management.

US-AEP also enhances bilateral cooperation through the Exchange Program for Sustainable Growth (EPSG) which is administered by IIE. During 2003, US-AEP directly enhanced two bilateral initiatives implemented by the National Institute for Environmental Health Science (NIEHS) and the National Oceanic and Atmospheric Administration (NOAA) by facilitating exchanges for Vietnamese and U.S. scientists. Both these projects in-turn complement US-AEP's programming in proper management of POPs and sustainable coastal tourism.

US-AEP also catalyzes and leverages resources of other bilateral and multilateral donors. To achieve its immediate results, US-AEP/Vietnam coordinates closely with the World Bank, Asian Development Bank (ADB), Danida, Swiss Development Corporation (SDC), and Vietnam- Canada Environment Program (VCEP) among others. This is a proven formula that leverages US-AEP's limited resources to achieve greater development impact.

In FY04, US-AEP/Vietnam will also develop stronger linkages with US-AEP programs in India, Indonesia, the Philippines, Thailand, and Sri Lanka. These regional linkages will serve to greater enhance knowledge and share lessons among our Asian partners in air quality management, community-based environmental management, and hazardous waste management.

Strategy Development Process

The FY04 Work Plan activities were developed during July-November 2003 based on discussions within US-AEP (including the TSSC, PADCO, etc.), the US-AEP regional advisor, and Vietnamese partners. A draft work plan was reviewed by TSSC staff at their regional meeting held 29-30 September and revised based on inputs from USAID, TSSC and PADCO.

List of Projects

1. **Strengthening Environmental Institutions: Pollution charges and Environmental Funds** -- Strengthen support for environmental protection and promote environmental investments by enterprises
2. **HCMC Canal: Developing a CBEM Process** -- Develop a community: based environmental management process and reduce pollution loads in HCMC canals
3. **Improved Oil Spill Contingency Planning in Saigon River** -- Strengthen capacity of GOV to plan for and respond to oil spills in Saigon River
4. **Cleaner Vehicles and Fuels** -- Improve urban air quality and reduce levels of toxins caused by mobile sources of pollution
5. **Certification and Training of Water Supply and Wastewater Operators** -- Increase efficient use of water resources through semi: cost-recovery training program for water supply and wastewater treatment operators
6. **Socialized Solid Waste in HCMC** -- Increase the efficiency of solid waste management in HCMC by promoting and legalizing non-public sector involvement
7. **Sustainable Coastal Tourism** -- Establish pilot project for eco-tourism in Halong Bay
8. **Strengthened Environmental Management Planning for Industry** -- Strengthen environmental management planning for industry, particularly in the textile and chemical sectors
9. **Support for Voluntary Environmental Stewardship through Corporate Leadership** -- Promote establishment of voluntary environmental stewardship initiatives
10. **Proper Management and Disposal of Hazardous Wastes** -- Promote proper management and disposal of hazardous wastes, particularly POPs

Activities

1. Strengthening Environmental Institutions: Pollution Charges and Environmental Funds

Purpose: To strengthen the institutional capacity of national, provincial and municipal agencies to support environmental protection and promote environmental investments by enterprises

Primary Program Area:

IR1: Improved Environmental Governance

Sub-IR: Strengthened Institutions

Sub-IR: Strengthened Compliance and Enforcement of Regulations

Implementing Partners:

US-AEP, USAID, PADCO, EPSG, TAF

In-country partners: Vietnam Environmental Protection Agency (VEPA), Hanoi Department of Natural Resources and Environment (DONRE)

International partners: World Bank, Vietnam-Canada Environment Program (VCEP)

Description: Since its establishment, US-AEP/Vietnam has worked collaboratively with national and provincial environmental agencies to strengthen environmental policy frameworks, enforcement capabilities and human and institutional capacity. In 2002 Vietnam established the Ministry of Natural Resources and Environment (MONRE), which consolidates natural resource and environmental protection agencies from a range of ministries into a single ministry. The establishment of MONRE represents a further opportunity for US-AEP to work with key leaders and officials to build on effective models and best practices in Vietnam and overseas.

For FY04, US-AEP will continue to build on past efforts to support institutional and policy development initiatives, economic instruments and environmental funds. In the context of overall weak enforcement capabilities and institutional reform, promoting market-based incentives is a core priority for US-AEP in promoting improved enforcement over the long term.

In particular, US-AEP will work with the newly-reorganized Hanoi Department of Natural Resources and Environment (DoNRE) to develop a pollution charge program that will serve as a model for other provinces/cities, and generate new resources for environmental investments city-wide. Through these efforts, US-AEP will support DoNRE in establishing an innovative policy framework and action plan for implementing a new executive decree and ministerial circular on pollution charges that will include development of an appropriate formula and approach for implementation across industry sector and city district. (One key area for potential implementation is the textile sector, which will link to other US-AEP activities.)

To strengthen environmental investment, Hanoi DoNRE plans to direct pollution charge revenues to their pilot the Hanoi Environmental Fund, which they will expand to cover all districts in Hanoi. In developing and implementing this policy and action plan, DoNRE will work closely with MoNRE to ensure effective integration with national level policies and plans. For this project, US-AEP will work closely with the Vietnam-Canada Environment Program (VCEP), which has been working with MoNRE and DoNRE on pollution charges through their factory demonstration projects.

In addition to work with the Hanoi DoNRE, US-AEP will continue to coordinate with MoNRE to identify potential interventions in support of their institutional and policy reform initiatives, including potential collaboration on the implementation of the Vietnam Environmental Protection Fund (VEPF). These efforts, though modest for FY04, will maintain overall support for MoNRE efforts and look ahead to future programming opportunities, such as strengthening environmental protection funds in HCMC, Hai Phong and Da Nang.

US-AEP will also continue collaborative exchange with other multilateral and bilateral donors on potential activities that leverage our programmatic comparative advantage. In particular, US-AEP will participate in an on-going multi-donor dialogue with MoNRE on institutional reform led by World Bank to remain informed of donor efforts and identify possible areas for collaboration and assistance.

Expected Results:

- Development of pollution charge policy framework and action plan in Hanoi (FY04)
- Hanoi's pollution charge/environmental fund action plan implemented (FY04/05)
- Dissemination of pollution charge system and fund best practices to other cities/provincial funds as well as the national environmental fund (FY05)

Implementation Activities:

- PADCO – Design and coordinate development of pollution charge policy and action plan including targeted technical assistance and workshops.
- TAF – Grant to support development of policy and action plan through comprehensive participatory process with industry and civil society that both generates effective input and raises awareness of Hanoi pollution charge program.
- EPSG – Technical exchange with Philippines and Poland on pollution charges.

2. HCMC Canal: Developing a Community-based Environmental Management Process

Purpose: To develop a model community-based environmental management process, thereby reducing pollution loads from select communities into HCMC canals

Primary Program Area:

IR1: Improved Environmental Governance
Sub-IR: Improved Systems and Processes

Implementing Partners:

US-AEP: USAID, PADCO, EPSG, CSG, TAF

In-country partners: District 11 People's Committee, HCMC DoNRE, Institute of Environment and Resources (CEFINEA) of Vietnam National University of HCMC

International partners: World Bank, Belgium, Portland State University, Oregon Alliance

Description: Urbanization and population growth have placed tremendous pressure on drainage and sewerage systems in Ho Chi Minh City (HCMC). The city's many canals and waterways have become dumping sites for solid, domestic and household wastes, posing significant health risks to the local population. The more than 600 industrial facilities and over 20,000 small and medium-sized enterprises (SME), many located in crowded residential or commercial districts, also dump untreated effluent directly into these drainage ditches, canals and waterways.

One proposed solution favored by government decision-makers is to relocate industrial facilities to industrial zones outside of commercial and residential areas. For many family-owned and operated SMEs, relocating to a distant industrial park could amount to the end of their businesses. As a result, SMEs in targeted areas are looking increasingly for clean technology solutions to allow them to continue operations without bringing harm to their neighbors.

In 2003 US-AEP developed a project through TAF and PADCO to reduce urban and industrial pollution loads in the Tan Hoa–Lo Gom Canal (THLG) in District 11, a crowded, primarily residential section of the city with many SMEs. Initially developed through a grant by TAF to the Institute of Environment and Resources (CEFINEA), the project's primary objective is to develop a process of community-based environmental management (CBEM) whereby government, the community and private sector interests work together to shape solutions. Success depends on the commitment and vision of community leaders and government officials in raising citizen awareness and mobilizing community support. While leveraging stakeholder inputs for improved urban environmental

management is new concept in Vietnam, HCMC leaders have recognized the value of this approach and are keen to develop and replicate this model CBEM process.

To strengthen this initiative, US-AEP has also created a partnership between the National University HCMC and Portland State University (PSU) in Portland, Oregon through CSG's State Environmental Initiative partnership program. As a result, during FY03 HCMC and Portland established a strategic linkage focused on strengthening HCMC capabilities in CBEM. US-AEP also leveraged support from USAID's Making Cities Work partnership program to fund and replicate the model process in other communities in HCMC.

In FY04, US-AEP will shift focus from project inception to full implementation. PADCO will support HCMC-based coordination between the implementing partners in HCMC and Portland, while TAF/Vietnam, CEFINEA and PSU focus on facilitating workshops, raising community awareness and promoting cleaner production with select industries along the canal. US-AEP will also partner with the World Bank Urban Upgrading and Belgium THLG Sanitation projects to support infrastructure improvements in the project area.

Expected Results:

- Development of community-based action plan for canal restoration in Wards 3 and 5 of District 11 (FY04)
- Formal commitments to restore canal as outlined in the action plan signed (FY04)
- Expansion of CBEM model to other district(s) in HCMC (FY04/05)
- Reduction in pollution from 2 point sources along the canal through implementation of cleaner production recommendations (FY04/05)
- Replication of CBEM model established in similar urban areas in Vietnam (FY06)

Implementation Activities:

- TAF (FY03) – Grant to CEFINEA/National University of HCMC to facilitate community assessments, cleaner production and stakeholder participation for improved community-based environmental management in District 11, HCMC.
- CSG (FY03) – Grant to Portland State University/Oregon Initiative to share lessons in CBEM and urban watershed management.
- EGAT/MSW (FY03) – Support TAF/Vietnam to scale-up CBEM model to other communities along the THLG canal.
- PADCO – Partnership coordination and implementation support including workshops, technical exchanges and liaison with government agencies.
- EPSG – Study exchange to share lesson's with US-AEP's Lake Laguna CBEM project near Manila, Philippines.

3. Improved Oil Spill Contingency Planning in Saigon River

Purpose: To strengthen capacity of GVN to plan for and respond to oil spills in the Saigon River

Primary Program Area:

IR1: Improved Environmental Governance

Sub-IR: Strengthened Institutions

Sub-IR: Improved Systems and Processes

Implementing Partners:

US-AEP: USAID, NOAA, PADCO, CSG, EPSG

In-country partners: HCMC and Vung Tau DONREs, Research and Development Center for Petroleum Safety and Environment (RDCPSE) of PetroVietnam, Saigon and Vung Tau Port Authorities

International partners: University of Oklahoma, ConocoPhillips

Description: The Saigon River extends from navigable waters north of Saigon Port, through the mangroves of Can Gio Biosphere Reserve, to the coastal beaches of Vung Tau Town. Following a

major oil spill in Vung Tau Harbor, which services the nation's petroleum industry, provincial authorities requested support to better prepare for and respond to coastal oil spills. Over 10,000 vessels navigate the Saigon River annually, an area that supports aquaculture, tourism and sensitive habitats. In the first half of 2003, four significant oil spills have occurred.

US-AEP support for oil spill contingency planning began with a study exchange to Houston, TX and New Orleans, LA in 2002. Later that year, US-AEP developed a new inter-governmental partnership with the National Oceanic and Atmospheric Administration (NOAA), Office of Response and Restoration (ORR), Hazardous Materials (HazMat) Response Division to develop a two-phase project with RDCPSE/PetroVietnam (the primary oil spill responder) and Vung Tau DOSTE. The NOAA/ORR/HazMat office in Seattle, WA is the scientific coordination headquarters for all coastal oil spills that occur in the U.S. and its island territories.

Phase I (FY03) was a planning phase comprised of 1) a NOAA consultation visit to HCMC/Vung Tau; and 2) an exchange for Vietnamese to visit Vancouver, Canada and ORR/HazMat offices in Seattle, Washington. These meetings aimed to assess the Vietnamese partners' institutional needs and develop with the Vietnamese partners a workplan to strengthen institutional capacity of PetroVietnam and Vung Tau DONRE in oil spill contingency planning. US-AEP also explored expansion of the partnership to include: HCMC DONRE, the Saigon Port Authority, ConocoPhillips, and the University of Oklahoma (UOK).

Phase II (FY04), which will be coordinated by PADCO, focuses on implementation of the NOAA technical assistance and a CSG grant to UOK to share innovative oil spill fingerprinting techniques. A primary objective of Phase II is the development of a spill response plan to ensure improved cooperation among relevant Vietnamese agencies and organizations. With implementing support from PADCO, US-AEP will seek to expand the partnership to other relevant institutions in Vung Tau and HCMC, including the port authorities and oil companies, strengthen inter-agency and private sector coordination in responding to oil spills, and linking these lessons with environmental regulations and procedures at the central-level (Hanoi). US-AEP will also explore opportunities to leverage interests in Houston, TX (e.g. the Port Authority of Houston and ConocoPhillips) in the partnership.

Expected Results:

- Development of draft interagency coordination plan between environmental agencies, port authorities and petroleum companies in Vung Tau Province and HCMC (FY04)
- Improved capacity of governmental research institute in oil spill "fingerprinting" technology (FY04)
- Improved ecological sensitivity map of Saigon River Estuary (FY05)
- Development of Geographic Response Plan (GRP) for Saigon River/Vung Tau (FY05)
- Development of improved planning and response systems for coastal oil spills in the Saigon River, with linkages to central-level agencies (FY05)

Implementation Activities:

- NOAA (FY03) – Technical assistance and training in ecological sensitivity mapping and regional response planning.
- CSG (FY03) – Grant to University of Oklahoma for scientific cooperation related to oil spill fingerprinting technologies.
- PADCO – Implementation support and coordination among the various partners.
- EPSG – Sponsor scientific research/exchange for oil spill "fingerprinting" techniques.
- EPSG – Study exchange to Seattle and Houston to learn about regional oil spill response planning.

4. Cleaner Vehicles and Fuels

Purpose: To improve urban air quality and reduce toxic emissions from mobile sources of pollution through the adoption of stricter vehicle emissions and fuel standards

Primary Program Area:

IR 2: Improved Urban Management

Sub-IR: Management Practices and Technology Adopted to Mitigate Air Pollution

Implementing Partners:

US-AEP: USAID, TSSC, CSG, TAF, EPSG

In-country partners: Vietnam Register, Vietnam Standards Center (STAMEQ), PetroVietnam, Vietnam EPA

International partners: Clean Air Initiative in Asia (CAI-Asia)

Description: The major cities in Vietnam, especially HCMC and Hanoi, experience serious air pollution problems, with motor vehicles being the principal cause. Levels of particulate matter are especially high. Pollution controls on vehicles and the specifications on fuels used in these vehicles are very weak at the present time with the notable exception of the rapid phase out of leaded gasoline, which took place in 2001. Because the vehicle population continues to grow rapidly, and congestion in cities is outpacing the growth in the available road space, it is expected that the pollution problem could get much worse in the future unless pollution control efforts are substantially upgraded.

Since 2000 US-AEP has provided leadership toward better air quality management in Vietnam. Working in partnership with the World Bank and Ford Motor Company, US-AEP supported Vietnam's successful phase-out of leaded gasoline in July 2001. US-AEP also provided technical support for air quality monitoring in Ho Chi Minh City (HCMC) through a CSG grant to California Air Resources Board (CARB) and in 2002 developed a white paper entitled "Before the Clouds Gathered: Protecting Clean Air in Vietnam." More recently US-AEP has partnered with the ADB's Clean Air Initiative in Asia (CAI-Asia) to strengthen policy coordination for improved air quality in Vietnam, particularly with regards to mobile sources of pollution.

Following on recommendations outlined in the US-AEP/Vietnam Strategy for Mobile Source Air Pollution in July 2003, US-AEP will support the Vietnam Register and Vietnam Standards Center (STAMEQ) to reduce levels of benzene and sulfur in fuels through support for stricter vehicle emissions and fuels quality standards and to strengthen coordination among governmental agencies, research institutions and donors involved in the reduction of mobile source air pollution. These efforts will enable Vietnam to achieve benchmarks set forth in the ADB/Vietnam Register Draft Integrated Action Plan to Reduce Vehicle Emissions.

In supporting cleaner vehicle and fuel standards, US-AEP will collaborate with the Asian Development Bank (ADB) and the Clean Air Initiative for Asia Cities (CAI-Asia). CAI-Asia promotes the development of a regional air quality management community through the sharing of knowledge and best practices, improvement of policy and regulatory frameworks, the formulation of integrated air quality strategies, and the implementation of pilot projects. The ADB, in collaboration with US-AEP and the World Bank, launched CAI-Asia to bring stakeholders together from national and local government, civil society, development agencies, and the private sector. US-AEP assisted Hanoi and HCMC to join CAI-Asia in 2001. This year, the ADB is developing an air quality management project in Hai Phong, thereby securing membership of a third large city in Vietnam.

In FY04, US-AEP will build upon the ADB and CAI-Asia efforts by supporting a CSG-SEI grant to strengthen the capacity of stakeholders to improve air quality management in the following areas: fuel quality standards; vehicle emissions standards (including automobiles, buses/trucks, and motorbikes); improved vehicle inspection and maintenance; and health effects from vehicle emissions. A series of national workshops will be organized under these topics with technical support from TSSC and CSG to share international best practices and facilitate a participatory dialogue between government agencies, industry, and the public. The workshops will contribute to achieving an informed consensus among all stakeholders for the development of revised fuel quality specifications and vehicle emission standards, improvement of inspection and maintenance practices, and enhanced understanding of the links between mobile source air pollution and public health. US-AEP will also stimulate public awareness of air pollution by awarding a TAF grant to a local NGO to develop an urban air quality awareness raising program.

The TSSC/Vietnam Clean Cities Coordinator, based in Hanoi, will promote these clean air initiatives through coordination with selected government agencies, industry representatives, researchers and

public health officials in Hanoi, HCMC and other major cities. US-AEP/Vietnam will also develop linkages with US-AEP programs in Thailand, Indonesia and India to share best practices in diesel emissions reduction.

Expected Results:

- Knowledge base and consensus developed among various government agencies to improve fuel standards, including analytical tools to assess air quality issues (FY04)
- Draft national plan for revised fuel standards developed (FY04)
- Fuel specifications revised to reduce benzene and sulfur content (FY05)
- Draft strategy developed for revising vehicle emissions standards
- Draft national plan for stricter vehicle emissions standards developed (FY05)
- Vehicle emissions standards revised (FY06)

Activities:

- CSG grant – Support for a series of national workshops for improved strategy and management of mobile sources of air pollution.
- TSSC grant – Support feasibility of adopting EURO standards and support national workshops to discuss tightening of fuel specifications, revising vehicle emissions standards, and improving vehicle inspection and maintenance policies.
- TAF grant – Support local NGO to develop an urban environmental education curriculum with an emphasis on air pollution.
- EPSG – Sponsor exchange to attend ENVIRONTECH air quality conference held 7-10 October in Jakarta, Indonesia.
- EPSG – Sponsor exchange to attend World Fuels Conference and CAI-Asia training workshop on cleaner fuel strategies 27-31 October in Sydney.
- EPSG – Sponsor exchange to attend ADB Clean Air Quality in Asia Conference held 17-19 December in Manila.
- STTA – Follow-on assistance from Mike Walsh to advise US-AEP, Vietnam Register and STAMEQ on vehicle emissions and fuel standards strategy.
- EPSG – Sponsor CARB staff to attend national fuel specification workshops.
- EPSG – Sponsor exchanges to learn lessons in air quality management in India/region.

5. Certification and Training of Water Supply and Wastewater Operators

Purpose: To increase the efficient use of water resources through establishment of a sustainable, semi-cost-recovering training program in water and wastewater operations

Primary Program Area:

IR 2: Improved Urban Management

Sub-IR: Management Practices and Technology Adopted to Improve Water Quality

Implementing Partners:

US-AEP: USAID, AWWA, TSSC, EPSG

In-country partners: Vietnam Water Supply and Sewerage Association (VWSA)

International partners: American Water Works Association (AWWA), Southeast Asia Water Utilities Network (SEAWUN), Water Environment Federation (WEF)

Description: Presently, only 36% of Vietnam's 80 million people have access to piped water. Roughly 50% of urban populations are covered by piped water works and in major cities this figure is upwards of 70% coverage. Shortages and intermittent flow are usual, and 80% of household water sources are below national quality standards. In general, more affluent neighborhoods receive better coverage than poorer communities and slum areas.

Vietnam is currently embarking on a national water program to expand piped water coverage in rural areas and reform subsidized state-owned water utilities to operate as profitable state-owned commercial enterprises. To promote efficiency, transparency and improved service in the water

sector, US-AEP has been working since 2001 to promote professionalism and networking among water utilities in Southeast Asia (Indonesia, Malaysia, the Philippines, Thailand, and Vietnam).

To strengthen this regional network (SEAWUN), US-AEP sponsored a project entitled Certification and Training Support for Professional Associations in Water (CATSPAW), which comprised of a series of regional workshops in each of the cooperating nations. In Vietnam, US-AEP has partnered with the Vietnam Water Supply and Sewerage Association (VWSA), which is the center for professional development and knowledge-sharing among Vietnam's 68 water companies (in 61 provinces) and scattered municipal wastewater treatment facilities currently under construction.

In FY04, US-AEP will support the Water for People (WFP) initiative, whose goal is to help the most impoverished people improve their livelihoods through access of sustainable drinking water. The 3-year project aims to strengthen the capacity of VWSA to help water companies deliver affordable piped water through an effective and sustainable certification and training program and their mid- and lower-level managers. The methodology and lessons learned will be incorporated into VWSA's expanded national information sharing and training system. The project design results from a strategy assessment for improved municipal water and wastewater productivity conducted by US-AEP Regional Infrastructure Advisor.

Expected Results:

- 400 water supply technicians from north, central and south Vietnam trained in water supply operations, management and resource efficiency (FY04)
- Demonstration through benchmarking programs in Vietnam that operator training pays for itself (FY05)
- Well-trained water supply operators in majority of provinces of Vietnam (FY06)
- A sustainable water/wastewater certification and training program established (FY06)

Implementation Activities:

- AWWA (new MAARD) – Grant to AWWA/WFP and sub-grants to SEAWUN and VWSA for certification and training of water supply and wastewater operators.
- EPSG – Support for trainers to attend CATSPAW workshop and for Vietnamese water supply experts to share lessons with trainers in the US and the region.

6. Socialized Solid Waste in HCMC

Purpose: To increase the efficiency of solid waste management by strengthening the legal framework for socialized/non-public sector involvement and developing a pilot project in HCMC

Primary Program Area:

IR 2: Improved Urban Management

Sub-IR: Management Practices and Technology Adopted to Improve Solid Waste Management

Implementing Partners:

US-AEP: USAID, ICMA, EPSG, TAF

In-country partners: HCMC People's Committee, HCMC DONRE, District 5 HCMC Department of Public Works

International partners: World Bank, Environment and Development in Action (ENDA)

Description: In 2002, following a UNDP analysis of non-public sector involvement in public works, the HCMC People's Committee requested US-AEP's support to promote non-public sector involvement in solid waste management. In 2003, US-AEP procured technical assistance from ICMA to: a) develop a legal framework for greater involvement of the non-public sector in the city's solid waste management system; b) develop recommendations for involving the non-public sector; and c) provide training including a study exchange to strengthen capacity of HCMC Department of Public Works, non-public sanitation service providers and NGOs.

In FY03, ICMA consultants undertook a three-week assessment of current and planned investments for solid waste systems in HCMC, conducted two trainings on non-public sector involvement and occupational health and safety, and discussed options for non-public sector involvement. The project also conducted a study exchange to Taiwan and Hong Kong focusing on privatized Build-Own-Operate-Transfer (BOOT) facilities and supported a TAF grant to Enda, a local NGO, to establish a demonstration project with low income primary waste collectors in District 5 of HCMC.

In FY04, US-AEP will continue to strengthen the legal framework through ICMA technical assistance and empower informal waste collectors through the TAF/Enda demonstration 'syndicate' project. To promote non-public sector support for solid waste management in other cities beyond HCMC, US-AEP will support GOV and the World Bank to develop a feasibility study for Coastal Cities Environmental Improvement project in Nha Trang, Qui Nhon and Dong Hoi in central Vietnam. US-AEP will also sponsor a study exchange to India and explore opportunities to stimulate private sector participation/competition through a second TAF grant.

Expected Results:

- Model "syndicate" for private waste collectors in District 5, HCMC established (FY04)
- Strengthened legal framework for privatization of solid waste management adopted by HCMC People's Committee (FY04)
- Feasibility study to improved environmental sanitation services in Nha Trang, Qui Nhon and Dong Hoi cities, thereby incorporating socialization concepts into World Bank's Coastal Cities Environmental Improvement project (FY04)
- Improved service, efficiency and social conditions for 250 private waste collectors in 15 Wards of District 5, HCMC (FY05)
- Enhanced environment for private sector competition for privatized solid waste collection scheme in Binh Thanh District, HCMC (FY05)

Implementation Activities:

- ICMA SUM IQC (FY03) – Technical assistance and implementation support to strengthen legal framework for non-public sector involvement in solid waste collection, transport and composting in HCMC.
- TAF grant (FY03) – Support ENDA to pilot a syndicate project for increased non-public sector involvement in primary collection of solid waste in District 5, HCMC.
- ICMA SUM IQC (FY04) – Technical assistance to develop a feasibility study for Coastal Cities Environmental Improvement project in central Vietnam.
- TAF grant (FY04) – Establish model for public participation and enhance the environment of competitive bidding on HCMC pilot privatization scheme for waste collection in Binh Thanh District of HCMC.
- EPSG – Study exchange to India for primary and secondary collection systems.

7. Sustainable Coastal Tourism

Purpose: To establish a model process for sustainable tourism in Ha Long Bay

Primary Program Area:

IR2: Improved Urban Management

Sub-IR: Management practices adopted to improve water quality/efficiency

Sub-IR: Management practices adopted to improve solid waste management

Implementing Partners:

US-AEP: USAID, ICMA, TSSC, EPSG

In-country partners: Hai Phong People's Committee

International partners: World Bank, City Council of Seattle, Flora & Fauna International

Description: Tourism is the largest economic sector in Asia. As disposable incomes rise, the tourism industry in Vietnam is growing from both foreign and domestic demand. Much of this tourism growth

occurs in coastal areas proximal to ecologically sensitive habitats. By in large, most land-use planning and investment decisions focus on the economic benefits of tourism development; little consideration is given to plan for or mitigate adverse social and environmental impacts.

As a UNDP report on aid in the environment sector in Vietnam stated, too little overseas development assistance has focused on taking the pressure off critical habitats. On Cat Ba Island, for example, foreign donors support institutional strengthening of Cat Ba National Park and protecting the endemic Cat Ba Langur, yet no projects to date have addressed the impacts of tourism development plans, which include construction of a suspension bridge, a satellite city and a theme park on the island. As a result of unplanned tourism development over the past five years, Cat Ba Island suffers from heaps of untreated solid waste, salt water intrusion to groundwater supplies, and explosive rates of heroin addiction, prostitution, and HIV/AIDS.

Since 2001, US-AEP and the World Bank have supported ICMA's Resource Cities project to improve the quality of urban governments through city-to-city exchanges between Hai Phong City and Seattle, Washington. An Action Plan was developed focusing on tourism/trade development, public health and urban management. In 2003, the urban management component was redesigned to focus on sustainable tourism on Cat Ba Island in Ha Long Bay, a World Heritage Site.

In FY04, USAID/Vietnam will support sustainable coastal tourism in Ha Long Bay through the US-AEP/ICMA Hai Phong–Seattle Resource Cities project and the USAID/NOAA/IUCN integrated coastal management project. To establish a model process for sustainable tourism in Ha Long Bay, ICMA will facilitate volunteer technical assistance and support for a series of local workshops while a TSSC grant will support an NGO to develop a pilot project for eco-tourism certification and provide field-based support to the ICMA activities.

Expected Results:

- Improved knowledge base of local decision-makers of sustainable alternatives to tourism development in Ha Long Bay (FY04)
- Pilot project established on Cat Ba Island to introduce and develop guidelines for eco-tourism certification (FY04)
- Environmental standards for eco-tourism certification introduced in Vietnam (FY04)

Implementation Activities:

- ICMA (FY01) – Coordinate volunteer technical assistance and support a series of workshops for sustainable tourism on Cat Ba Island.
- TSSC Grant – Support FFI to develop an eco-tourism certification pilot project.
- EPSG – Support USAID/NOAA ICM in Ha Long Bay project staff to visit U.S. for official meetings with NOAA staff in DC, South Carolina and Florida.

8. Strengthened Environmental Management Planning for Industry

Purpose: To strengthen MOI's environmental management planning systems, particularly in the textile and chemical sectors

Primary Program Area:

IR3: Improved Industrial Management

Sub-IR: Improved Energy, Water and Materials Efficiency

Sub-IR: Improved Adoption of Environmental Management Practices

Implementing Partners:

US-AEP: USAID, TSSC, EPSG

In-country partners: Ministry of Industry (MOI), Vietnam Chemical Corporation (Vinachem), Vietnam Textile Corporation (Vinatex), Pho Noi Industrial Zone, Bien Hoa II Industrial Zone, Van Long University (CENTIMA)

International partners: World Bank

Description: To promote sustainable development of industry in Vietnam, the Ministry of Industry (MOI) is drafting an “Action Plan on Environmental Protection and Sustainable Development for the Industrial Sector up to 2010.” The Institute for Industry Policy and Strategy (IIPS) under MOI is responsible for developing this national, industry-wide plan as well as 8 sector-specific action plans. To strengthen this process, MOI has requested technical assistance from US-AEP to review the draft action plans for the chemicals and textiles sectors, as well as the national action plan, and advise on ways to improve and implement these policies.

MOI recognizes that within a weak regulatory framework, improved management planning in industrial zones must be improved. Only about 10% of Vietnam’s 87 industrial zones have operating wastewater treatment plants despite regulations requiring such treatment. Therefore, environmental guidelines need to be developed and adopted, monitoring of firm’s environmental management systems need to be monitored by industrial park authorities, and the costs of installing environmental technologies need to be shared. To this end, US-AEP has introduced basic principles of Eco-Industrial Development (EID) to MOI and developed a draft EMP incorporating EID principles for Phu Noi Industrial Zone outside Hanoi.

In FY04, US-AEP will continue support to improve environmental management of state-owned industries, with a particular focus on the textile and chemicals sectors. This will include a variety of activities, including: technical review of the draft sustainable development action plans for the chemical and textile sectors and the overall national industrial action plan; training support for environmental management planning at Pho Noi Industrial Zone; and introduction of EID in Bien Hoa II Industrial Zone outside of HCMC. US-AEP will also support efforts by MOI to implement cleaner production activities focused on chemical manufacturing and textile/dyeing industries, which would bolster implementation of the sustainable development plans, and explore support toward the relocation of heavy industry and remediation of ‘brownfields’ in HCMC.

Expected Results:

- Improved Action Plans for Environmental Protection and Sustainable Development of the Textile and Chemical sectors adopted (FY04)
- Strengthened National Action Plan for Environmental Protection and Sustainable Development of Industry adopted (FY04)
- Model of improved environmental management in Pho Noi Textile Industrial Zone (FY05)
- Pilot EID project initiated in operating industrial zone in Vietnam (FY04)
- Adoption of EID principles in three additional industrial zones (FY05)

Implementation Activities:

- STTA – Technical assistance to MOI/IIPS, Vinatex and Vinachem to improve the environmental protection and sustainable development action plans for the chemical and textile sectors and the national action plan for industry to 2010.
- STTA – Training for select staff of enterprises and Pho Noi Industrial Zone Management Board on environmental management, stakeholder participation, monitoring, and reporting.
- TSSC Grant – Support CENTIMA for EID pilot project in Bien Hoa II Industrial Zone.
- EPSG – Support exchange to UDNP/GTZ Eco-Industrial Estates Asia Network training in Manila.
- EPSG – Support exchange to regional EID conference in Bangkok.
- EPSG – Exchange for high ranking industrial officers to US to learn environmental management in industry, MOI shares the cost.

9. Support for Voluntary Environmental Stewardship through Corporate Leadership

Purpose: To promote the establishment of voluntary environmental stewardship initiatives

Primary Program Area:

IR3: Improved Industrial Management

Sub-IR: Improved Energy, Water and Materials Efficiency

Sub-IR: Improved Adoption of Environmental Management Practices

Implementing Partners:

US-AEP: USAID, TSSC, EPSG

In-country partners: Ministry of Industry (MOI), Vietnam Chemical Corporation (Vinachem), Vietnam Chemical Society

International partners: Bayer, NIKE

Description: Corporate environmental stewardship is a hallmark of advanced industrial economies. As more multinational companies operate in Vietnam or purchase products manufactured in Vietnam, the expectations and requirements of the global marketplace are becoming more powerful as both economic and environmental drivers. Since 2002, US-AEP has supported two initiatives to promote voluntary environmental stewardship through corporate leadership: Responsible Care (RC) in the Chemical Industry, and Recycling of Scrap Leather Waste.

RC is a global chemical industry-led initiative to voluntarily implement guiding principles and codes of management practices on health, safety and environmental protection. US-AEP has promoted RC in six Asian countries – Vietnam is the seventh. In 2003, US-AEP Vietnam worked closely with MOI, the Vietnam Chemical Corporation (Vinachem) and Bayer Corporation to establish a provisional RC Core Team to facilitate the establishment of RC in Vietnam. As a result of Bayer and U.S.-AEP's strong support for RC, MOI has agreed to form official RC Core Team that will include representation of private and state-owned companies, including multinational corporations. In FY04, US-AEP will continue to support the Vietnam Chemical Association to launch a National RC Council, to set up RC Office and promote RC to local and multinational chemical companies.

Since 2002, US-AEP supported an innovative partnership with Nike and the Leather Institute of Texas Technical University to support the leather and shoe manufacturers industry to recycle athletic shoe leather waste by neutralizing Chromium-3, which is toxic to groundwater, and using the reconstituted waste as fertilizer or other reformatted chemical products. In FY04, US-AEP will provide limited support to Nike's efforts to scale-up this industrial waste management process to its manufacturing operations facilities worldwide.

Expected Results:

- Establishment of an RC Core Team and office in Vietnam (FY04)
- At least 3 major companies adopt and implement RC codes (FY04)
- RC in Vietnam officially recognized by ICCA (FY05)

Implementation Activities:

- TSSC Grant: Support Vietnam Chemical Society to establish RC office, conduct trainings and publish promotional materials.
- EPSG – Exchanges to attend international RC conference in South Korea.
- EPSG – Exchange to learn from RC Council members in Asia.
- EPSG – Support for U.S. and regional trainers to assist RC Vietnam.

10. Proper Management and Disposal of Hazardous Wastes

Purpose: To strengthen the capacity amongst agencies and industries to properly manage and disposal of toxic hazardous wastes, particularly pesticides and PCBs.

Primary Program Area:

IR3: Improved Industrial Management

Sub-IR: Improved Adoption of Environmental Management Practices

Implementing Partners:

US-AEP: USAID, US-EPA, TSSC, EPSG

In-country partners: Ministry of Industry (MOI), Vietnam Electricity Corporation (EVN), Vietnam Environmental Protection Agency (VEPA)

International Partners: Switzerland, Holcim Cement

Description: Of all the pollutants released into the environment by human activity, persistent organic pollutants (POPs) are among the most dangerous. POPs pose global health risks because of their toxicity to animals and people, their persistence in the environment, their ability to travel long distances on air and in water, and their propensity to build up in food chains (bio-intensify). POPs have become common contaminants of fish and other aquatic life, dairy products and other foods. POPs are used as pesticides, industrial materials, or generated unintentionally as by-products of various industrial processes.

In FY02 US-AEP supported an EPA training in Bien Hoa (outside HCMC) on the classification, storage, disposal, transportation, and treatment of hazardous wastes. These efforts, combined with a study exchange, led to the establishment of Vietnam's first hazardous waste treatment facility. In FY03, EPA conducted a similar training in Hanoi and led two study exchanges to the US, one supporting MOI to learn industrial management practices for hazardous wastes (e.g. electroplating, paper/pulp, and steel) and the other to support Vietnam EPA's efforts to regulate, inventory and create viable options for the treatment, incineration and disposal of POPs.

In FY04, US-AEP will continue to support Vietnam Environmental Protection Agency (VEPA), the Ministry of Industry (MOI), and the Electricity Corporation of Vietnam (EVN) to properly manage and dispose of hazardous wastes, particularly POPs. A third US-EPA hazardous waste management training workshop will be held in HCMC with a focus on training-of-trainers. US-AEP and EVN will also organize a workshop in Hanoi to discuss proper management and disposal of PCBs in the electricity sector and a study exchange to the U.S. to learn proper management and disposal of PCBs.

In addition to these activities, US-EPA and US-AEP will help build Vietnam's capacity for permitting – and, by extension, for ensuring lower emissions from – cement kilns used in the destruction of obsolete pesticides. US-EPA, US-AEP, VEPA, MOI, and other partners (e.g., UNEP Chemicals, Norway, Switzerland, Holcim Cement, NGOs) would work together to review the current standards and permitting processes. The initial engagement would focus on improved understanding of the technology, on establishing a sound permitting process (including performance and operating standards), and on the inspection process. The project could address both new state of the art kilns (as demonstrated by the recent trial burn in Vietnam) as well as retrofitting and cleaner production for existing kilns. US-EPA and US-AEP would convene one or more stakeholder meetings in Vietnam on the cement kilns issue, including discussions on use of cement kilns for co-generation, or incineration, as a viable alternative to disposal of industrial and hazardous wastes (e.g. resins, paints, lubricant oils, pesticides, etc.).

Expected Results:

- Improved environmental plan for Vietnam Electricity Corporation to properly manage and dispose of hazardous wastes (FY04)
- Improved capacity within MOI in hazardous waste management and PCB disposal issues (FY04-05)
- Pilot project developed for disposal of PCB oils within industry (FY05)

Implementation Activities:

- US-EPA – Build capacity of GVN to develop model permitting process for incineration as a viable alternative to disposal of industrial and hazardous wastes.
- US-EPA – Train MOI trainers to conduct introductory training in HCMC on the proper management and disposal of toxic and hazardous wastes.
- TSSC Grant – Support three EPA/MOI training workshops on hazardous and industrial waste management in Hanoi, HCMC and Danang.
- STTA – Support EVN's efforts to properly manage and dispose of PCBs.
- EPSG – Exchange to U.S. to learn proper management and disposal of PCBs.
- EPSG – Sponsor international experts to present at PCB electricity workshop hosted by EVN and provide technical assistance on the adverse health effects of PCBs and explore establishment of local chapter.