

Thailand

FY 2005 Work Plan

I. Country Strategy

A. Background/Operating Environment

Coping with the environmental impacts of rapid urbanization and industrial growth remains a significant challenge for Thailand. According to the State of the Environment for 2002 developed by the Royal Thai Government (RTG), degradation of the natural environment continues largely unabated due to “natural disasters, impacts from human activities, and inappropriate environmental management.” The report specifically cites Bangkok air quality as a pressing concern, and the worsening water quality of Thailand’s rivers. Hazardous waste management remains an ongoing challenge, since an estimated 70 percent of the hazardous waste goes untreated.

In response to these mounting environmental challenges, Thailand is pursuing a reform agenda that strengthens the role of citizens and local governments in environmental decision-making. Driven primarily by constitutional mandates, these new legal measures and institutions apply to all branches of government and to civil society. On the legislative side, the first elected Senate in Thailand now investigates citizen environmental complaints and makes response recommendations to the government.

On the judicial side, the Administrative Court has handed down landmark environmental decisions, sending a strong signal to agency officials on the importance of transparency and accountability. The Supreme Court also recently established an environmental chamber within the court to handle environmental cases, and is working to establish new court policies and practices for environmental cases, aiming toward the eventual creation of a specialized environmental court.

Most reforms, however, affect national and local administrative agencies. As part of a major administrative reform initiative, the RTG established the Ministry of Natural Resources and Environment (MoNRE), which consolidates and rationalizes a wide range of environmental functions from across many ministries and strengthens the role of regional offices to provide training and information to provincial and local governments. Local governments also continue to assume more responsibility in managing their own environment, improving environmental infrastructure, and involving their citizens in environmental decision-making.

Political changes at the local level also highlight the importance given to the environment. In recent years, citizens are more likely to elect well-educated mayors and municipal councilors who focus on broad local issues rather than on small interest groups. Further, in a number of provinces, citizens are forming new civic groups and associations comprised of middle class professionals, academics, and business leaders, who are all eager to promote improvements in cities through philanthropic work and local political action.

Despite these changes, much work remains in promoting the adoption of improved national and local-level policies and practices, and strengthening skills development. While legal reforms enacted in 1992 established the principles and framework for Thailand’s environmental regulatory system, law enforcement still remains weak due to overlapping authority as well as technical and financial resource limitations.

Finally, environmental conflicts between local communities and project developers continue to be a major challenge for Thai policymakers. Strong community opposition has led to significant delays in infrastructure project development, which in turn has affected Thailand’s overall development agenda.

While the Cabinet recently promulgated a new decree requiring agencies to develop new strategies for mediating disputes, Thailand is still a long way from implementing effective dispute resolution policies and practices.

B. Strategy Description

As summarized below and detailed in the activity descriptions in Part II, US-AEP/Thailand has structured nine partnership activities that aim to achieve specific results that contribute to US-AEP’s overall Strategic Objective (SO)—*Cleaner Cities and Industries in Asia*—and its three intermediate results (IRs):

- IR 1. *Improved environmental governance;*
- IR 2. *Improved urban environmental management, technologies and resource efficiency;* and
- IR 3. *Improved industrial environmental management, technologies and resource efficiency.*

Each activity addresses one principal Intermediate Result, but it is important to note that all activities also achieve results in support of one or both of the other IRs.

Each activity addresses a specific priority environmental challenge through a partnership approach that leverages the comparative advantage of a U.S. or Asian partner. In Thailand, US-AEP will engage government agencies, courts, local governments, universities, industry associations and groups, and non-government organizations (NGOs) to facilitate the adoption of improved environmental policies, systems, management practices, and plans. From the U.S., US-AEP/Thailand will call on a wide range of experts from U.S. federal and state agencies, courts, cities, and civil society organizations, including environmental groups and industry leaders, to provide focused technical assistance, information, and appropriate technologies.

US-AEP/Thailand also integrates with US-AEP regional initiatives and institutions, and increasingly the US-AEP/Thailand strategy looks for opportunities to establish strategic counterpart linkages between US-AEP countries. Examples include a linkage between the supreme courts of Thailand and India on establishing a “green bench” and a community watershed partnership between counterparts from the ThaChin River and Laguna de Bay in the Philippines.

1. Intermediate Result 1: Improved environmental governance

In support of Thailand’s constitutional reform agenda, since 2000 US-AEP/Thailand has worked closely with a range of partners in all three branches of government and with civil society to promote improved laws, policies, institutions, and governance systems to strengthen Thailand’s environmental regulatory system. In 2005, the program will continue this work formulating and implementing new policies and plans through strategic activities with core program partners that address priority challenges. Planned activities that will meet program objectives under IR 1 include:

Activity 1: Promoting Improved Environmental Dispute Prevention and Resolution

Activity 2: Strengthening Court Policies, Practices, and Institutions for the Environment

Activity 3: Supporting Implementation of Public Consultation Regulations

Activity 4: Strengthening Environmental Institutions: Improved Compliance and Enforcement Policies and Practices

One key priority is to support Thai efforts to prevent or resolve environmental disputes. Building on an established partnership with the U.S. Environmental Protection Agency (EPA) and MoNRE in this area, US-AEP/Thailand will continue to assist with policy implementation through continued training of Thai mediators, development of a roster mediators and a case intake procedure, implementation of

a strategy for establishing a mediation center of excellence, and evaluation of actual mediation activities by trained mediators (*Activity 1*).

Since 2000, US-AEP/Thailand has worked closely with Thai courts to promote environmental decision-making. These efforts have resulted in several landmark decisions and in the establishment of a “green bench” at the Supreme Court of Thailand. US-AEP will continue to promote improved enforcement of environmental laws through work with the Supreme Court and with the Thai Administrative Court by developing an action plan for establishing a specialized environmental court (*Activity 2*).

In 2005, US-AEP will also continue to assist with specialized training for public participation, and establish a node for the International Association for Public Participation (IAP2) in Thailand (*Activity 3*).

Strengthening agency compliance and enforcement also remains a top priority in Thailand. As a result, US-AEP/Thailand will continue efforts to formulate new strategies and methods for compliance and enforcement, including pilot testing a self-monitoring and report regulation in large hotels in Bangkok (*Activity 4*).

2. Intermediate Result 2: Improved urban environmental management, technologies and resource efficiency

Reversing the trend of worsening environmental conditions has become an important challenge for Thai environmental policymakers at the city level. Recognizing the enormous scale of this problem, US-AEP/Thailand will focus its efforts by implementing two activities that address specific pollution problems in two locations—air quality in Bangkok and water quality in the ThaChin River Basin—and one activity that will introduce tools and processes to help improve environmental management in three Thai Cities—Chiang Mai, Phuket, and Khon Kaen. A fourth activity will seek to strengthen Thailand’s municipal management training capabilities.

Activity 5: Promoting Community-Based Environmental Management in ThaChin River Basin

Activity 6: Developing Integrated Emission Strategies for Existing Land Transport (DIESEL) Program for Bangkok

Activity 7: CityLinks Partnership to Improve Municipal Environmental Management in Thailand

Activity 8: Enhanced Municipal Manager Training

The ThaChin River is a heavily polluted waterway that runs just west of Bangkok and is an important resource for hundreds of cities and local communities. In 2005, US-AEP/Thailand will expand its support to stakeholders working to clean up the ThaChin River, including national and local government officials, community leaders and NGOs (*Activity 5*). The focus will be on introducing participatory methods for water quality restoration to help reduce pollution discharges into the river from point and non-point sources. In this effort, US-AEP/Thailand will continue to build on a three-way partnership between the Chesapeake Bay in the United States, the Laguna de Bay in the Philippines, and the ThaChin River Basin.

Vehicle emissions pose significant health threats to Bangkok’s residents. To help reduce these harmful pollutants, US-AEP/Thailand will continue its partnership with the Pollution Control Department and World Bank to reduce automobile emissions in Bangkok (*Activity 6*). Funded under the USAID Global Development Alliance (GDA), this activity will focus on designing and implementing specific interventions that result in the adoption of improved policies and technologies, increased stakeholder awareness, and direct engagement of the private sector. Components of this

activity will include: (1) piloting retrofit technologies in selected diesel vehicle fleets; and (2) strengthening inspection and maintenance capabilities for diesel fleets.

As decentralization continues in the country, Thailand will devolve greater responsibility for environmental management to provincial and local authorities, many of whom have limited capacity and resources to adequately deliver environmental services effectively or to undertake needed capital projects. To help local governments overcome these problems, US-AEP/Thailand will support improved municipal environmental management in the areas of financial management and community outreach through a *CityLinks* partnership between Chiang Mai, Khon Kaen, and Phuket and Portland, Oregon (*Activity 7*).

US-AEP/Thailand will supplement its city partnerships by helping to enhance the municipal management certification training programs offered through King Prajadhipok's Institute (KPI) of the College of Local Government Development (*Activity 8*).

3. Intermediate Results 3: Improved industrial environmental management, technologies and resource efficiency

Under this Intermediate Result, US-AEP/Thailand's primary focus will be to work with Thai government agencies, experts, and business leaders to explore options for financial incentives that encourage stronger investment in energy efficiency and renewable energy in Thailand. This, in turn, will help improve national energy security through decreased energy imports and improve environmental quality through reduced pollution (*Activity 9*).

Activity 9: Promoting Clean Energy through Financial Incentives

C. Relationship to USAID and Other Donor Programs

With the establishment of the Regional Development Mission/Asia (RDM/A) in Bangkok, US-AEP/Thailand program activities will support the RDM/A Strategy, which will lead to more opportunities for regional programming. While the RDM/A Strategy is in the design phase, it is clear that RDM/A priorities will focus on addressing regional developmental challenges and that partnership will serve as a primary delivery mechanism. As a middle income country undergoing significant positive institutional changes, Thailand is ideally situated as a platform for regional exchange, and US-AEP as a leading operational model for addressing shared regional challenges by working with missions throughout the region.

To complement RDM/A regional programming, US-AEP/Thailand expects to play an important role in identifying and implementing regional programming opportunities for the environment. For example, in FY 2004 US-AEP implemented a regional forum for senior judges from the region to share ideas and best practices on strengthening the judicial efforts to enforce environmental law. Looking ahead to FY 2005, US-AEP/Thailand also expects to develop and host a regional conference on community-based environmental management that will provide a platform for sharing lessons learning on-going US-AEP activities in Thailand, the Philippines, and Vietnam. Similarly, US-AEP/Thailand is well-positioned to support emerging US-AEP activities in the Mekong River Basin.

US-AEP/Thailand will continue to work closely with other donors, especially the World Bank and Asian Development Bank. Over the next three years, these collaborative efforts will likely be most pronounced in US-AEP/Thailand's work in reducing vehicular emissions, especially in Bangkok. The Program is currently implementing a project with the World Bank that seeks to reduce emissions from Bangkok's fleet of diesel vehicles.

D. Strategy Development Process

US-AEP/Thailand oversees an integrated program that enjoys long-standing relationships with key Thai leaders and decision-makers on the environment. In developing the annual country strategy and workplan, throughout the programming year US-AEP/Thailand tracks new developments and works to identify opportunities to deepen existing activities, or develop new activities. In general, this process is both on-going and consultative, as project implementers work with a range of Thai partners and donor partners to test new ideas and strategies. In developing workplan activities, US-AEP/Thailand looks to ensure overall development impact by considering three factors: (1) each planned activity must address a priority need; (2) the primary partner organization must have the necessary capabilities and commitment to achieve program and activity objectives; and (3) US-AEP has the demonstrated comparative advantage to provide the necessary assistance.

A new strategy for US-AEP will be designed in early FY 2005 and introduced in FY 2006. In addition to this work plan, a transition plan will be prepared to transfer US-AEP's successes and partnerships to the new strategy, wherever appropriate. During this transition year, US-AEP will aim to complete or sustain existing activities and capture best practices and lessons learned.

Moving ahead, US-AEP/Thailand will modify this process by working more closely with RDM/A to ensure ultimate achievement of mission objectives. US-AEP/Thailand also looks forward to contributing ideas to the US-AEP's regional strategy and workplan, as appropriate.

E. Activity Summary Table

Activity	Activity Purpose
1. Promoting Improved Environmental Dispute Prevention and Resolution	To prevent and resolve environmental disputes by supporting the development of improved policies, practices, and institutions.
2. Strengthening Court Policies, Practices, and Institutions	To formulate improved court policies, practices and institutions for the environment, including the establishment of an environmental bench and/or court, and training of key judges and experts.
3. Supporting Enactment and Implementation of the Public Consultation Act	To support implementation of Prime Ministerial regulations on public consultation and support for establishment of public participation center of excellence promoting the training of government and civil society.
4. Strengthening Compliance and Enforcement Policies and Practices	To support MoNRE in developing improved compliance and enforcement through policies and practices that strengthen MoNRE's efforts to decentralize core functions to regional offices.
5. Promoting Community-Based Environmental Management in the ThaChin River Basin	To help reduce pollution loading in the ThaChin River by introducing a new process for community-based environmental management, and by assisting in the planning and development of specific projects for pollution prevention and watershed protection.
6. Developing Integrated Emission Strategies for Existing Land Transport (DIESEL) Program for Bangkok	To reduce emissions of particulate matter from diesel vehicles currently in use in Bangkok by working with national and municipal level agencies to adopt retrofit solutions and improve inspection and maintenance (I/M) practices through partnership with the private sector and selected U.S. cities.
7. CityLinks Partnership to Improve Municipal Environmental Management	To strengthen municipal management, improve public service delivery, and encourage democratic participation from citizens residing in the cities of Chiang Mai, Khon Kaen, and Phuket.
8. Enhanced Municipal Manager Training Program	To assist College of Local Government Development, KPI to improve and develop training course curricula and training manuals in city management for local government leaders in order to strengthening their capabilities through U.S.-Thai partners
9. Promoting Clean Energy through Policy Incentives	To promote renewable energy and energy efficiency investments in Thailand through financial policy incentives through a partnership between the State of Oregon and the Kingdom of Thailand.

II. Description of FY 2005 Activities

Activity 1: Promoting Improved Environmental Dispute Prevention and Resolution

Primary Program Area:	Improved Environmental Governance (IR 1)
In-country partners:	MoNRE, Supreme Court, King Pradjadipok's Institute (KPI) Regional Community Forestry Training Center (RECOFTC)
International partners:	U.S. EPA Center for Conflict Prevention and Resolution U.S. Institute for Environmental Conflict Resolution (USIECR)

Purpose

The purpose of this activity is to prevent and resolve environmental disputes by supporting the development of improved policies, practices, and institutions.

Activity Description

Environmental conflicts continue to be front-page news in Thailand. Infrastructure projects are frequently delayed due to disputes between project developers and communities who are not consulted in the siting process. One strategy for reducing conflict and promoting improved enforcement is to use dispute resolution techniques, such as facilitation, mediation, or consensus building.

Through a series of activities beginning in 2002, US-AEP/Thailand worked with the Thai Ministry of Natural Resources and Environment (MoNRE) and a range of other stakeholders to develop a draft environmental dispute prevention and resolution (EDPR) policy. U.S. EPA played a critical role in this effort both in providing technical assistance and in serving as a counterpart agency to the MoNRE by demonstrating EPA's programs.

In 2003, US-AEP and EPA worked with MoNRE and other organizations to support implementation of the new policy. As a first step, US-AEP and EPA completed a scoping exercise and stakeholder consultations to identify major challenges, priority issues, mediator qualifications, and training needs. Based on results of the scoping and consultations, US-AEP, EPA and MoNRE piloted a dispute prevention and resolution training for key officials, resulting in the development of a core curriculum and creation of a core group of trained mediators.

Most significantly, however, MoNRE established a new mediation center that meets legal requirements that under a recent Prime Ministerial Order mandating that all government ministries establish dispute resolution capabilities. This new "center of excellence" will support continued skills development of government and civil society leaders, and the creation of a roster of capable mediators.

In FY 2004, US-AEP and EPA worked with MoNRE to further implement the EDPR policy. Key elements included working with Thai and U.S. agencies and organizations: (1) to refine the pilot training course and further adapt to Thai needs; (2) to conduct specialized trainings for a range of participants, including MoNRE regional offices; and (3) to identify preliminary institutional models for establishing an EDPR center.

Implementation Activities in FY 2005

In FY 2005, US-AEP and EPA will work with MoNRE to continue operationalizing its EDPR policies and programs through a series of integrated activities:

- a. comprehensive training of selected mediators (completion of FY 2004 TAF grant funding to RECOFTC);
- b. consultation meetings and specialized training to develop mediator roster drawn from trained officials and experts;
- c. delivery of a workshop and training to develop a dispute intake assessment process for use by MoNRE and support for developing capacity in assessing response to potential disputes;
- d. technical evaluation of MoNRE response to disputes; and
- e. a visit to U.S. Institute for Environmental Conflict Resolution (USIECR) to participate in a conference, refine its strategy for strengthening the national mediation center, and strengthen international partnership.

Expected Results for FY 2005

- Over 200 practitioners trained;
- Roster of mediators created for use in national response to environmental disputes;
- Dispute assessment process for mediation case intake developed;
- Ten disputes mediated and techniques evaluated;
- MoNRE action plan for strengthening center of excellence developed;
- International partnership strengthened with USIECR.

Activity 2: Strengthening Court Policies, Practices, and Institutions for the Environment

Primary Program Area:	Improved Environmental Governance (IR 1)
In-country partners:	Office of the President of the Supreme Court (OPSC) of Thailand Administrative Court Judicial Training Institute
International partners:	Supreme Court of India New South Wales Environmental Court

Purpose

The purpose of this activity is to formulate improved court policies, practices and institutions for the environment, including the establishment of an environmental bench and/or court, and training of key judges and experts.

Activity Description

Court decisions provide the foundation for environmental enforcement. In the last four years—due in part to support from US-AEP—Thai courts have handed down landmark environmental decisions that are sending signals to both regulators and polluters. Notable cases are the decision by the Administrative Court to issue injunctions closing illegal landfills, and the decision by the Courts of Justice in the Klongtoey case to award damages to victims.

Building on this momentum, in 2003 US-AEP worked with the Office of the President of the Supreme Court (OPSC) to develop a draft framework strengthening court policies and practices for the environment. Program activities included inventorying and analyzing environmental cases, and exchanging lessons learned with regional and U.S. counterparts through roundtables and a regional judges’ forum. One significant outcome was the establishment of an environmental “green” division within the Thai Supreme Court, which will support specialized training for judges and give special attention to environmental cases.

In FY 2004, US-AEP continued this partnership with the Thai courts. Primary outcomes included: (1) strengthening court policies and procedures for environmental cases; (2) defining judicial capacity building requirements; and (3) exploring the establishment of new institutional arrangements, such as a specialized environmental court. Activities included developing a judges training curriculum, case analysis through targeted research, and an exchange with the Supreme Court of India and High Courts from three states

Implementation Activities in FY 2005

US-AEP and the OPSC will continue their partnership by developing a strategy for establishing a specialized environmental court that will integrate jurisdiction from the Courts of Justice and the Administrative Court. Activities will include:

- a. completion of specialized training for judges;
- b. continued consultations with the OPSC to finalize its action plan for operationalizing its green bench, including a pilot activity in the regional court in Rayong;
- c. continuing to facilitate dialogue with the Administrative Court to develop options for establishing an environmental court; and
- d. conducting a study visit to the New South Wales Environmental Court in Australia to explore strategies for development of an environmental court.

Expected Results

- 100 judges and court officials trained (FY 2005);
- Green bench in Supreme Court and regional courts operationalized (FY 2005);
- Action plan established for creation of environmental bench (appellate and trial courts) to ensure more effective environmental case decisions (FY 2005);
- Action plan for creation of environmental court developed (FY 2005);
- Linkages with overseas courts strengthened (FY 2005);
- More informed and innovative environmental case decisions handed down as a result of established environmental court (FY 2006 and later).

Activity 3: Supporting Implementation of Public Consultation Regulations

Primary Program Area:	Improved Environmental Governance (IR 1)
In-country partners:	Executive Public Administrative Foundation (EPAF) Office of Public Sector Development Commission (OPDC)
International partners:	International Association for Public Participation (IAP2)

Purpose

The purpose of this activity is to support implementation of Prime Ministerial regulations on public consultation and support for establishment of public participation center of excellence promoting the training of government and civil society.

Activity Description

Strengthening public involvement in government decision-making is central to governance reform in Thailand, especially in the environment sector. Beginning in 2001, US-AEP and EPA supported the Council of State, Thailand’s legislative drafting agency, in developing the draft Public Consultation Act, a far-reaching statute that introduces new methods for public involvement in environmental decision-making. Though not yet enacted, many of the tools and methods in the draft have been incorporated in regulations promulgated by the Office of the Prime Minister.

To support implementation of the new policy, in FY 2003 US-AEP worked with the Executive Public Administrative Foundation (EPAF) to: (1) complete a notice-and-comment process on the draft law; (2) develop a comprehensive handbook of public participation methods for use by officials and others in implementing the law; (3) establish linkages with the International Association for Public Participation (IAP2); (4) organize an IAP2 training resulting in the certification of four Thai practitioners and experts; and (5) complete an action planning session for key Thai practitioners and experts with IAP2.

Building on these efforts, in FY 2004 US-AEP and EPA worked with the Office of Public Sector Development Commission (OPDC) (with cost share of \$25,000) to develop a specialized train-the-trainer curriculum for the CEO Governors and other senior officials and practitioners. US-AEP also continued to facilitate linkages with IAP2.

Implementation Activities in FY 2005

In FY 2005, as a final stage of assistance, US-AEP will provide targeted technical assistance to OPDC and EPAF as they expand their training efforts and design a public participation center of excellence, and also facilitate linkages with IAP2 via a study visit to its regional meeting in Australia. The meeting in Australia will be jointly facilitated by OPDC and EPAF.

Expected Results

- 700 practitioners (including MoNRE officials) trained in international best practices in public participation (FY 2005);
- Preparation of draft indicators for measuring the effectiveness of public participation activities and events (FY 2005);
- Creation of a draft public participation policy (FY 2005);
- Action plan adopted for establishing a public participation training center of excellence (FY 2005);
- Thai node for IAP2 established (FY 2005).

Activity 4: Strengthening Environmental Institutions: Improved Compliance and Enforcement Policies and Practices

Primary Program Area:	Improved Environmental Governance (IR 1)
In-country partners:	Ministry of Natural Resources and Environment (MoNRE) Pollution Control Department (PCD), Thailand Department of Industrial Works (DIW)
International partners:	Philippines Environmental Management Bureau India National Pollution Control Board Vietnam MoNRE, Taiwan EPA, U.S. EPA

Purpose

The purpose of this activity is to support MoNRE in developing improved compliance and enforcement through policies and practices that strengthen MoNRE’s efforts to decentralize core functions to regional offices.

Activity Description

With the creation of MoNRE in 2002, US-AEP has supported ministerial efforts to reengineer environmental institutions and strengthen capabilities. In 2003, US-AEP and EPA organized a senior-level observational program to the U.S. to enable senior decision-makers to strengthen their understanding of U.S. policy and practice in enforcement, dispute resolution, environmental impact assessment (EIA), and public participation. A central focus of the program was to illustrate U.S. institutional arrangements (headquarters, regional, state, and local) to support MoNRE’s efforts to decentralize core functions to regional offices and local governments.

In FY 2004, in response to a directive from the Office of the Prime Minister to strengthen MoNRE’s enforcement powers, US-AEP and EPA worked with the PCD to develop a strategic assessment of Thailand’s enforcement program, and developed two reform initiatives: (1) self-monitoring and self-reporting regulation, and (2) a new industrial permitting system. MoNRE reported both findings at the Asian Environmental Compliance and Enforcement Forum in October, which it co-hosted.

Implementation Activities in FY 2005

In FY 2005, US-AEP and EPA will continue to work with PCD and the MoNRE Regional Environment Offices (REO) on the self-monitoring/self-reporting and permitting initiatives. Deliverables will include:

- technical assistance in support of pilot program on self-monitoring and permitting for large hotels in Bangkok (priority hotels identified by PCD);
- workshop to develop compliance and enforcement performance indicators; and
- workshop for creation of national compliance and enforcement action plan.

Expected Results

- Large hotels in Bangkok demonstrating improved compliance due to participation in self-monitoring and permitting systems pilot program (FY 2005);
- Development of action plan for improved compliance and enforcement based on regional forum (FY 2005);
- Compliance and enforcement performance indicators developed (FY 2005);
- Ministry enforcement and compliance action plan developed (FY 2005).

Activity 5: Promoting Community-based Environmental Management in the ThaChin River Basin

Primary Program Area:	Improved urban environmental management, technologies, and resource efficiency (IR2)
In-country partners:	Ministry of Natural Resources and Environment (MoNRE) Region 5 ThaChin River Basin Coordinating and Management Subcommittee We Love ThaChin Chapters Environmental Volunteer Network Provincial and local governments
International partners:	University of Maryland Center for Environmental Science Chesapeake Bay Commission Metropolitan Washington Council of Governments Maryland Department of Environment (MDE) Businesses by the Bay Lake Laguna Development Authority (LLDA), Philippines Federation of River Councils

Purpose

The purpose of this activity is to help reduce pollution loading in the ThaChin River by introducing a new process for community-based environmental management, and by assisting in the planning and development of specific projects for pollution prevention and watershed protection.

Activity Description

The ThaChin River, one of Thailand’s five most important rivers and a potable water source for Bangkok, faces significant threats due to intensive agricultural and industrial production along its length. In 2000, the Thai Pollution Control Department (PCD) developed a detailed plan for restoring water quality in the river, but encountered difficulties gaining local community support for its initiative.

To address environmental problems facing the ThaChin, in FY 2002 US-AEP facilitated an international collaborative effort that led to the creation of the “ThaChin River Basin Partnership” through an agreement signed by four provincial governors, the Director-General of the Pollution Control Department (PCD), a senior Interior Ministry official, and the Acting Director of the Maryland Department of the Environment. The partnership established a cooperative framework to reduce pollution, provide information to the public, and involve the public and non-governmental organizations in the process of cleaning the ThaChin.

In FY 2003, US-AEP sponsored a series of exchanges to the Chesapeake Bay, which offers a leading international model of how stakeholders from government, civil society, and the private sector can work together to restore and protect an important water body. One exchange exposed several senior Thai government officials to community-based environmental practices, prompting MoNRE to develop a workplan that consolidated various water quality activities in the ThaChin in the following year. Another exchange brought over key members of local community groups to learn about the critical role of NGOs in the Chesapeake Bay, and four leading community groups (“We Love ThaChin” Clubs) subsequently decided a plan to merge their clubs to gain increased recognition and better access to external funding as a single organization.

In FY 2004, US-AEP provided a grant through the Council of State Governments to support Community-Based Environmental Management (CBEM) in the ThaChin River Basin through a partnership with two other watersheds—the Laguna de Bay in the Philippines and the Chesapeake Bay in the United States. The partnership activity is helping provide local governments, community organizations, and government agencies in the region with the tools and methods necessary to protect and restore their watershed, and, in the process, provide a participatory model that can be used in

other regions. The University of Maryland Center for Environmental Science is serving as the principal partner from the U.S.

Implementation Activities in FY 2005

In FY 2005, US-AEP will continue its support to the three-way partnership through three activities:

- a. Strengthening Local Capacity in CBEM: This activity will support efforts to empower communities, citizens, environmental groups, and local governments to engage in voluntary efforts to protect and restore environmental resources. Activities include raising awareness, monitoring environmental quality, participating in action planning, and assisting in resource restoration and protection activities. In FY 2005, this will consist of four specific components:
 - *Developing Citizen’s Strategy for Environmental Management in the ThaChin River Basin* – Through a combination of analysis, research, and facilitated stakeholder meetings, a project team, led by Mahidol University and CivicNet (a Thai NGO), will develop a citizen’s strategy for environmental management to be used as a framework and guidelines for actions taking by different parties involved in the ThaChin, primarily the ThaChin NGOs and local communities. Work under the Citizen’s Strategy will be coordinated with development and implementation of the ThaChin Technical Network (TTN), the Volunteer Water Quality Monitoring program, and, to the extent practical, the model environmental management in agriculture activities.
 - *Establishing the ThaChin Technical Network (TTN)* – Through a series of events and pilot projects, leading universities in the ThaChin will form the ThaChin Technical Network. The University of Maryland’s Center for Environmental Science (UMCES) will provide the initial technical linkage with a group of potential Thai academic partners through training, conferences, and exchanges. Work under the ThaChin Technical Network will be coordinated with the ThaChin Citizen’s Strategy and the Volunteer Water Quality Monitoring program, and provide the institutional focal point for developing and implementing the model environmental management in agriculture activities.
 - *Expanding the Volunteer Water Quality Monitoring Program* – US-AEP will help strengthen the water monitoring volunteer program of PCD and Regional Environment Office 5 (REO5) by training volunteers and providing expert assistance. Suggested volunteers include university students, ThaChin NGO members, local communities, etc. Possible partners in this effort include the United Nations Development Programme and the “River Watch” initiative in Chiang Mai. The Volunteer Water Quality Monitoring Program will be implemented in direct coordination with the ThaChin Technical Network, and in collaboration with efforts under the Citizen’s Strategy. Selected volunteers will participate in implementing the model environmental management in agriculture activities. UMCES will coordinate components of this activity.
 - *Introducing Fundraising Techniques to the ThaChin NGOs* – The institutional viability of the We Love ThaChin Clubs depends largely on their fundraising abilities. To support NGO development over the long-term, Venture for Fund Raising, a Philippines-based NGO, will conduct training for members of the ThaChin NGO groups on fundraising techniques.

- b. Strengthen Governance Systems: The partnership will facilitate the adoption of CBEM on national and local levels by showcasing collaborative approaches to environmental issues that have worked in the U.S. and in other countries, through the following actions:

example, is the extent to which water hyacinth growth accumulates in areas of higher runoff.) The results of this pilot will be presented to the relevant government agencies (e.g. PCD, MoA, etc.) in order to encourage more effective voluntary and mandatory compliance by farmers. The activity will also seek to encourage provincial offices of Supanburi and Chainat to organize a campaign promoting organic farming.

Expected Results

- a. Strengthening Local Capacity in CBEM:
 - The founding of a basin-wide organization (e.g. river council) and activities to solve the pollution problems in the ThaChin River Basin (FY2005);
 - Coordinated actions on solving the Thachin's environmental problems by key stakeholders (FY2005);
 - Improved understanding and working relationship between the communities and state authorities on environmental management (FY2005);
 - Improved environmental conditions in the Thachin as a result of the better use of science for key decision making (FY 2005 and later);
 - A model approach developed that can be replicated elsewhere in Thailand and the region (FY 2006 and later);
- b. Strengthen Governance Systems:
 - More commitment demonstrated by local leaders taking a lead role in environmental management (FY2005);
 - Increased ability for local communities to support compliance and enforcement activities at the local level (FY2005);
- c. Promote Model Environmental Management Practices in Agriculture:
 - Reduced (measurable) swine waste and fertilizer runoff discharged into the Thachin river, as measured by BOD level (FY 2005 and later);
 - Increased understanding of the correlation between chemical fertilizer and pesticide use and reduced environmental quality of the ThaChin River, and voluntary reduction of chemical use by farmers (FY 2005 and later);
 - A campaign initiated by the Provincial Offices or other agencies to promote balanced use of chemical fertilizer in farms and increased organic farming practices (FY 2005);
 - Improved understanding and working relationship between the communities and state authorities on environmental management;
 - A model approach and model agricultural techniques developed that can be replicated elsewhere in Thailand and the region.

Activity 6: Developing Integrated Emission Strategies for Existing Land Transport (DIESEL) for Bangkok

Primary Program Area:	Improved urban environmental management, technologies, and resource efficiency (IR2)
In-country partners:	Pollution Control Department (PCD) Department of Land Transport (DLT) Bangkok Metropolitan Transport Authority (BMTA) Bangkok Metropolitan Authority (BMA)
International partners:	Manufacturers of Emission Controls Association (MECA) U.S. EPA World Bank Clean Air Initiative for Asian Cities (CAI-Asia)

Purpose

The purpose of this activity is to reduce emissions of particulate matter from diesel vehicles currently in use in Bangkok by working with national and municipal level agencies to adopt retrofit solutions and improve inspection and maintenance (I/M) practices through partnership with the private sector and selected U.S. cities.

Activity Description

Particulate matter (PM) emissions represent the gravest environmental threat to human health in Bangkok. Diesel combustion is a major source of PM emissions, which can enter the respiratory system, causing lung cancer and heart disease, and exacerbating allergies. Harmful diesel emissions are due largely to pollution from older vehicles, poor vehicle maintenance, low quality fuel, and weak regulatory regimes.

Since 2003, the World Bank and US-AEP have been working with PCD and other Thai partner agencies and organizations, such as DLT, BMA, and BMTA, and private sector partners and donors to devise strategies for reducing harmful diesel emissions. In 2004, DIESEL began to develop a comprehensive data set that identifies diesel emission factors and solutions for Bangkok.

In FY 2004, with assistance from US-AEP, DIESEL developed city-specific information on diesel vehicle emissions to support policy analysis in the transport, environment, and energy sectors for reducing PM emissions. Activities and outputs included: (1) stratified survey of the owners of diesel vehicles targeting such characteristics as type, age, mileage, maintenance practice; and (2) comprehensive baseline emission testing of diesel vehicles to estimate emission factors for different diesel vehicle types under conditions more representative of “real-world” conditions, with the objective of estimating overall emissions.

Implementation Activities in FY 2005

Beginning in FY 2005, with funding from the USAID Global Development Alliance (GDA) and US-AEP, USAID will continue its commitment to DIESEL through pilot activities that will focus on designing and implementing specific interventions that result in adoption of improved policies and technologies, and increased stakeholder awareness. Activities in FY 2005 will consist of the following two components:

- a. Diesel Vehicle Retrofitting: US-AEP will work with U.S. EPA, Manufacturers of Emission Controls Association (MECA), and other private sector partners to complete an integrated series of activities that will include targeted technical assistance, stakeholder workshops, counterpart exchanges, and overseas observation programs. Specific activities will include:

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- convening a diesel retrofit stakeholder working group;
 - identifying appropriate fleets to test retrofit technologies;
 - facilitating private sector technology demonstrations;
 - completing retrofit testing and analysis, including costs and health benefits; and
 - formulating improved policies and completing an action plan for technology adoption and dissemination.
- b. Inspection and Maintenance: US-AEP will strengthen the capacity of diesel fleets to promote improved I/M policies and practices through the following activities:
- convening an I/M stakeholder working group;
 - identifying challenges and gaps in existing I/M policies and practices;
 - identifying improved I/M policies and practices through policy formulation workshops, technical exchanges, trainings, and technology demonstrations with U.S. cities; and
 - implementing a public awareness campaign to catalyze public pressure to support policy improvements.

Key partners in the I/M component will include selected U.S. cities, such as San Francisco and Washington, DC. DIESEL will incorporate best practices from other Asian cities, and rely on regional forums, such as the CAI-Asia's annual Better Air Quality Conference, as well as other opportunities to share experience. DIESEL will disseminate outcomes via CAI-Asia and US-AEP.

Expected Results:

- 120 heavy duty diesel vehicles (buses, sanitation trucks, etc.) retrofitted (FY 2005);
- Particulate emissions reduced from retrofitted vehicles (FY 2005);
- Retrofit policy measures adopted based on pilot results (FY 2005);
- Improved I/M policies and regulations adopted to address public transport sector alternatives, mass transit, urban planning, traffic demand management, enforcement, and taxation (FY 2005);
- Adoption of appropriate practices and I/M equipment from U.S. and other countries (FY 2005);
- Adoption and implementation of improved regulatory and enforcement I/M policies and practice (FY 2005);
- City-wide action plan adopted for improved I/M (FY 2005).

Activity 7: CityLinks Partnership to Improve Municipal Environmental Management in Thailand

Primary Program Area:	Improved urban environmental management, technologies, and resource efficiency (IR2)
In-country partners:	Local governments of Chiang Mai, Khon Kaen, and Phuket Ministry of Finance, Thailand Municipal League of Thailand Department of Local Administration, Thailand Thai Local Finance Officer’s Club
International partners:	City of Portland, Oregon International City/County Management Association (ICMA) Government Finance Officers Association (GFOA)

Purpose

The purpose of this activity is to strengthen municipal management, improve public service delivery, and encourage democratic participation from citizens residing in the cities of Chiang Mai, Khon Kaen, and Phuket.

Activity Description

Environmental management is a major challenge facing the municipalities of Thailand. While cities have five-year plans as required by the central Thailand government, most are ill-prepared to meet the 2006 deadline to implement them, largely because the plans lack adequate financial components, priorities, schedules, and public involvement. As a result, it is much harder to take necessary, but politically difficult, actions to improve urban environmental management, and water, wastewater, and solid waste continue to be provided at highly subsidized rates.

To help address these concerns, in FY 2003 the Thai cities of Chiang Mai, Khon Kaen, Phuket, and the City of Portland, Oregon entered into a two-year *CityLinks* partnership to promote downtown redevelopment and improved environmental protection measures by introducing new financial management measures, specifically for increasing fees for wastewater services. *CityLinks* is a program facilitated by the International City/County Management Association (ICMA) that seeks to strengthen municipal management, improve public service delivery, and encourage democratic participation.

During an initial trip to Portland, representatives from the three cities learned about Portland’s city and financial planning experience, identified options for their city redevelopment projects, and learned how to develop action plans for the projects. Shortly after that, a delegation from Portland visited Thailand to review the progress of project planning and implementation and to provide guidance and support. The Thai delegates returned to Portland in mid-2004 to discuss and revise their action plans and learn about public participation tools and methods. Throughout FY 2004, officials from all three cities have led community meetings about the proposed redevelopment projects and have collected data and developed communication materials about increasing wastewater fees.

Implementation Activities in FY 2005

In FY 2005, US-AEP/Thailand will address local city management challenges by supporting activities in two areas:

- a. CityLinks Partnership: In FY 2005, US-AEP will continue supporting the CityLinks partnership between Portland and the cities of Chiang Mai, Phuket, and Khon Kaen. The

municipalities will continue to work to improve environmental management through prudent financial policies and promote consistent processes in city redevelopment.

As established in 2004, the focus of the partnership is twofold. First, each city is developing and implementing a redevelopment project—the *Ping Riverside Redevelopment Project* in Chiang Mai; the *Bang Yai Canal Reclamation Project* in Phuket; and the *Old Town Redevelopment Project* in Khon Kaen. Thus far, the cities have identified an overall project manager, defined roles and responsibilities, developed internal and external communication plans, and developed public involvement strategies. Each city, using a variety of formats, has also conducted one or more public meetings.

Second, the three cities are working to improve environmental management by developing more sound financial practices, particularly by setting and then charging a fee for treating wastewater. Initial work has involved working with the cities to understand all the tasks required when implementing a rate-based system. Thus far, the three municipalities have completed a rate-based model. The cities have introduced the concept of fees for services as well as the polluter pays principle (applicable to the public itself) through public meetings, brochures, and school events. Having completed the rates model the cities will then develop and implement billing and collection policies. The cities have started to explain how rate revenues are then used to build, operate, maintain, and expand systems. While each city has taken a somewhat different approach to implementing a rate system, the partnership is designed to exchange experiences and ideas that will enhance each other’s approaches.

Throughout the partnership, the cities are improving the way they interact with citizens and are encouraging links between stakeholders (e.g. educational institutions, NGOs, and other public and private sectors of the community). Each of the three Thai cities is responsible for organizing activities that will engage the public to participate in the activity and gain public support on the proposed sub-activities. These include public meetings and public relations campaigns within the cities.

- b. Support for Local Finance Association: In FY 2005, US-AEP will provide support for a *CityLinks* partnership between the Government Finance Officers Association (GFOA) of the U.S. and the Thai Local Finance Officers Club, with the goal of assisting the still informal club in developing into a professional association for finance directors in Thailand. Such an association will serve as a platform for developing training programs and practices to standardize business practices and help financial officers enhance their professional growth. As part of this activity, US-AEP will adapt the participatory budgeting tool developed by Rayong through a previous Resource Cities partnership between that city and Portland that resulted in a 5-year budget planning document and involved significant community input and the creation of a citizen review board. This is a critical tool that will enhance cities’ ability to plan for capital improvements. GFOA has pledged significant resources and in-kind support to assist the Local Finance Officers Club. The GFOA will provide training and materials to support the application process for association status, to build capacity as a national association, and to promote sound financial management practices.

Expected Results

- a. CityLinks Partnership:
 - Participatory processes understood and applied by local officials for engaging citizens in developing and implementing environmental and development projects (FY 2005).
 - Completed planning and design phases for all three municipalities for each redevelopment project, and construction initiated (FY 2005).
 - Environmental conditions improved along the proposed canals in Chiang Mai and Phuket, and in the old downtown district in Khon Kaen (FY 2005).

b. Support for Local Finance Association:

- Professional association established for finance directors in Thailand that can serve as a platform for developing training programs and practices to assist financial workers in local governments (FY 2005).
- Mechanism established for the creation of professional standards and a vehicle for the provision of training throughout Thailand (FY 2005).
- Capacity of Local Finance Officers Club and staff strengthened to provide training and assist municipalities with budget and financial processes that build on the Rayong experience (FY 2005).
- Financial management improved with respect to: balanced budgets, maintaining adequate financial reserves, one-time revenues to fund one-time expenditures, and using measurements of affordability when considering new or increased revenues (FY 2005).

Activity 8: Enhanced Municipal Manager Training

Primary Program Area:	Improved urban environmental management, technologies, and resource efficiency (IR2)
In-country partners:	King Prajadhipok’s Institute (KPI) College of Local Government Development Kenan Institute Asia (KIASia)
International partners:	International City/County Management Association (ICMA) Kenan Institute Washington, DC National Research Center (NRC)

Purpose

The purpose of this activity is to assist the College of Local Government Development, KPI to improve and develop training course curricula and training manuals in city management for local government leaders in order to strengthen their capabilities through U.S.-Thai partners.

Activity Description

The environmental impacts of rapid urbanization in Thailand—including urban air pollution, wastewater, municipal solid waste and hazardous waste—remain a significant challenge for local Thai municipal governments. Under the Constitution and the Decentralization Act, local Thai government organizations including Provincial Administrative Organizations (PAO), Municipalities, and Tambon Administrative Organizations (TAO) will have increased autonomy and responsibility to manage infrastructure projects, manage city environmental issues, and deliver better services for their citizens. Nevertheless, many local officials (including elected officials and staff) lack the skills and experience to effectively manage these responsibilities, and capacity building for local government managers and administration is urgently needed.

Beginning in FY02, US-AEP supported the Kenan Institute Asia, the College of Local Government Development (CLGD) at King Prajadhipok’s Institute (KPI), and the International City/County Management Association (ICMA) to develop and deliver a municipal managers training program. The program supported key leaders from KPI to participate in exchanges with ICMA and ICMA University. With ICMA technical assistance, KPI developed two levels of training courses: a basic course, *How to Manage Your City* (8 modules), launched in Khon Kaen, Chiang Mai, and Trung, and an advanced course, *Urban Management* (7 modules) launched in Bangkok. About 200 participants completed the training in 2003, experiencing innovative training techniques such as role play, use of real municipal information, and submission of extensive individual case work (instead of conventional Thai training methods such as examinations).

Feedback from this initial training indicated that improvements in the curriculum and materials were still needed. One important need was to develop more case materials specific to Thai contexts (rather than U.S.-based examples), particularly with respect to Thai legal and regulatory requirements. Another need identified in the first round of trainings was for shorter, more specialized courses uniquely tailored for municipal managers with specialized responsibilities, such as for financial planning, public participation, waste water treatment, and air quality management.

Enhancements to these materials are expected to have a major impact on municipal environmental management in Thailand. Tens of thousands of local government officials from PAO, Municipalities, and TAO continue to show great interest in participating in this innovative training program.

Implementation Activities in FY 2005

In FY 2005, US-AEP will apply carry-over funds still remaining from the recently completed KIAAsia/US-AEP co-funded urban program to implement the following activities:

1. Enhanced Municipal Manager Training Courses:

- *Improve Existing Basic and Advanced Management Course Curriculum for the Six-Month Certificate Program:* An initial deliverable would include two new, revised training manuals in Thai, produced by KPI, one for basic and another for advanced training. KPI will be responsible for all costs of production to meet student needs. Some of this case material could be adapted from the information gathered through the 2003 trainings. The course curriculum is expected to be completed in early 2005.
- *Disseminate and Evaluate Local Government Training Needs Survey:* KPI and KIAAsia will disseminate a local government training needs survey to at least 200 municipal governments across Thailand, through mail, email, and directly in class. KPI and KIAAsia will collect and analyze the survey to determine the most important training needs. These needs will be documented in a short written report.
- *Develop Three Enhanced Short Courses (Based on Training Needs Survey):* Following the six-month certificate program, the needs survey report will be used to develop at least three short courses of hands-on specialized training for municipal officials. These courses will go deeper into narrow specializations than the certificate course, offering municipal managers with specialized responsibilities (such as of financial planning, citizen participation strategic planning, and air quality management) the chance to improve their capabilities in delivering urban services. The ideal time frame for the short courses will be between two-three days and two weeks in length.
- *Criteria for Certification Course Trainings:* KPI will prepare written criteria that trainers must meet in order to be able to conduct the two long-course certification courses.
- *Delivery of Training Courses:* KPI shall deliver at least one advanced course in Urban Management, two basic courses, and at least one short course during FY 2005 (probably to be held in late spring). It is expected that at least 250 municipal officials will receive this training.

2. Strengthening Citizen Survey Capabilities:

- *Train-the-Trainer Workshop on Development of Citizen Participation Surveys:* Citizen surveys are a valuable tool for city managers to better understand the quality of services they provide, and how specific needs are being met as perceived by city residents. These surveys provide an important opportunity for the public to participate in environmental decision-making at the local level. ICMA has had considerable experience promoting the use of citizen surveys in the U.S., and a number of U.S. cities have valuable hand-on experience to share with city managers in Thailand, where citizen surveys are relatively unknown. ICMA uses a model citizen survey protocol and survey guidelines that have been developed and copyrighted by the National Research Center (NRC) in Boulder, Colorado. In the first phase of this activity, two trainers from the NRC will travel to Thailand to deliver a train-the-trainer workshop for KPI on the development of citizen participation surveys.
- *Study Tour in Boulder Colorado for Selected City Officials and Staff and KPI Representatives:* As a follow up to the training, US-AEP will conduct a study tour for city management officials and staff and a sponsor Thai institution to go to Boulder, Colorado to work with the National Research Center to gain hands-on experience in

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developing surveys (approximately 5 days) and to meet with the city/county of Boulder to learn about smart growth and the use of citizen participation surveys.

- *Development of New Citizen Survey Protocol and Survey Guidelines for Use in Thai Cities:* Based on the NRC training and exchange, KPI and KIAAsia shall develop protocol and survey guidelines for use in Thai cities with technical support from ICMA. KPI and KIAAsia shall organize a workshop for Chiang Mai city managers to explain how such surveys can be carried out and how they can benefit city environmental planning efforts. KPI and KIAAsia will assist Chiang Mai City to test the survey protocol and guidelines. The results of the survey will be documented for other Thai city managers. The objective of this activity is to promote city good governance, citizen involvement and citizen satisfaction.

Expected Results

- Revised training manuals developed, in Thai, for two long-course training courses, an advanced and a basic course (FY 2005);
- Three specific short courses developed based on training needs assessment of Thai local governments (FY 2005);
- Citizen survey protocol and guidelines for Thai cities developed and “ready to use” (FY 2005);
- 250 local government officials trained (FY 2005).

Activity 9: Promoting Clean Energy through Policy Incentives

Primary Program Area:	Improved Resource Efficiency and Management
In-country partners:	Energy Efficiency Development Association (EEDA) Department of Alternative Energy Development and Efficiency (DEDE) Energy Policy and Planning Office (EPPO) Energy Conservation and Entrepreneurs Association (ECEA) Metropolitan Electricity Authority (MEA) Provincial Electricity Authority (PEA) Electricity Generation Association of Thailand (EGAT) Federation of Thailand Industry (FTI) Industrial Finance Corporation of Thailand Thai Chamber of Commerce COGEN
International partners:	Alliance to Save Energy Council of State Governments (CSG) Oregon Economic and Community Development Department (ECDD) Oregon Department of Energy Oregon-based companies and utilities

Purpose

The purpose of this activity is to promote renewable energy and energy efficiency investments in Thailand through financial policy incentives through a partnership between the State of Oregon and Thailand.

Activity Description

In the face of increasing energy costs and the need for cleaner and more efficient power sources, Thailand is currently in the process of considering financial incentives to encourage wider use of renewable energy and energy efficiency technologies. Oregon has one of the most progressive and comprehensive energy efficiency and renewable energy programs in the U.S., employing an array of widely-used financial policy mechanisms that encourage investment in cleaner energy technologies. A team of Oregon partners, led by the Oregon Economic and Community Development Department, will share their experiences in promoting renewable energy and energy efficiency with key Thai government agencies, including the Department of Alternative Energy Development and Efficiency (DEDE). In this effort, Oregon will work closely with the Energy Efficiency Development Association (EEDA) of Thailand and Kenan Institute Asia (KIASIA). Possible areas of cooperation include the following:

1. *Support efficient implementation of compulsory regulations for "Designated Facilities" by DEDE* - Information is currently being collected on Thai industry through a mandatory energy audit program required for about 4,000 facilities that use 1 MW or more of electric energy data. This database presents an opportunity for someone to analyze this data and identify and compare energy use by business type and provide an overall ranking of energy efficiency opportunities by technology. This analysis might lead to training opportunities by business sector or technology and could provide the basis for designing effective energy efficiency programs.
2. *Cooperate with Thai government and non-governmental organizations to implement monitoring and verification (M&V) protocols for Thailand* - There has been extensive work done in this area in the United States, and one of the main contributors has been the Energy Service Company (ESCO) industry. The state of Oregon has both tax credit and energy loan programs that address M&V issues, and the state has several good ESCOs. Another source of information and collaboration is the

Regional Technical Forum, a group of utility technical experts which meets regularly to set M&V standards for regional programs.

3. *Advocate for improved energy efficiency and renewable energy financial incentives* – Oregon has one of the most creative and comprehensive tax credit programs in the U.S., and its business program is a finalist for an award through the Harvard University Innovations in Government Program. Tax credits are available for both residences and businesses and include both energy efficiency and renewable resources.

4. *Advocate for government policies and incentives that encourage local manufacturers to produce energy efficient commercial and industrial equipment* – Oregon recently amended its business energy tax credit to allow the state to provide credits for businesses siting new manufacturing facilities using renewable energy technologies. They have also added features to their credit so that they can provide incentives for sustainable or green buildings.

5. *Develop the potential for net metering and renewable energy portfolio standards in Thailand* – Oregon is active in promoting net metering, utility interconnection and photovoltaic generation. Right now, a major manufacturer is very actively considering siting a production facility in Oregon, in part because of the tax credit incentives. Under its residential credit program, Oregon has granted about 20,000 credits for various types of solar projects. In addition, Oregon offers a public benefits charge, part of which is dedicated to development of generating renewable resource projects in the state.

Implementation Activities in FY 2005

- *Scoping Trip* – The first step will involve a scoping trip for a small team of two-three people from Oregon to Thailand. The Oregon team will engage in a roundtable meeting with key government officials and other important stakeholders to determine the focus of the partnership, identify policy priorities and opportunities, develop plans and timelines, formulate more detailed budgets, and identify logistical needs. Kenan Institute Asia will provide limited assistance in coordination with EEDA for this component of the activity.
- *Study Tour* – The second stage will involve assembling a full-scale study group team (of about 8-10 people) from the U.S. to travel to Thailand for a week or ten days of more extensive research and meetings with Thai government and business officials. The exact makeup of the team may vary depending on the specific needs expressed during the initial scoping trip.
- *Exchange in Oregon* – The Thai team will visit Oregon and learn first hand about Oregon’s renewable energy and energy efficiency programs. The Thai team will be exposed to experts working for the Oregon Legislature and the Governor’s office to gain insights on how government perceives the programs. Meetings will also be set with various businesses to learn how the private sector uses the programs.
- *Targeted Assistance* – The final stage will involve providing more focused assistance in the areas identified through the course of the partnership.

Expected Results

- Increased understanding and capacity of policymakers, industry, and municipalities, in clean energy technology development opportunities and viable policy measures to promote them (FY 2005);
- Development of policy proposals involving financial incentives for promoting clean energy technologies by Thai industry (FY 2005);
- Preparation and adoption of legislative and regulatory policies to promote clean energy technologies (FY 2005 and later);
- Full establishment of a fully self-sustaining, widely recognized business association of energy efficiency companies in Thailand, the Energy Efficiency Development Association (EEDA) (FY 2005).