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Environmental Cooperation-Asia (ECO-Asia)

Water and Sanitation / Environmental Governance Programs

2010 Annual Report

Implemented by AECOM International Development

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Environmental Cooperation-Asia (ECO-Asia) Water and Sanitation / Environmental Governance Fiscal Year 2010 Annual Report

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Water and Sanitation / Environmental Governance
Fiscal Year 2010 Annual Report

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Acronyms

ADB	Asian Development Bank
AECEN	Asian Environmental Compliance and Enforcement Network
AELERT	Australasian Environmental Law Enforcement and Regulators Network
ASEAN	Association of Southeast Asian Nations
ASEAN ESC	ASEAN Environmentally Sustainable Cities
CBOs	Community-based Organizations
CEFACOM	Research Center for Family Health and Community Development
CSEC	Chinese Society of Environmental Scientists
DECCW	Department of Environment, Climate Change and Water
DLF	Department of Livestock and Fisheries
DONRE	Department of Natural Resources and Environment
DWP	Department of Water and Power
ECO-Asia	Environmental Cooperation-Asia
ECAC	Environmental Compliance Assistance Center
EIA	Environmental Impact Assessment
EiMAS	Environmental Institute of Malaysia
EPA	U.S. Environmental Protection Agency
FiA	Fisheries Administration
GMS	Greater Mekong Sub-region
GWA	Gender Water Alliance
HCMC	Ho Chi Minh City
IGES	Institute for Global Environmental Strategies (Japan)
IWA	International Water Association
IWK	Indah Water Konsortium
IWWA	Indian Water Works Association
K-Water	Korean Water Resources Corporation
LLDA	Laguna Lake Development Authority
MDGs	Millennium Development Goals
MJP	Maharashtra Jeevan Pradhikaran (India)
MOE	Ministry of Environment (Nepal)
MOEK	Korea's Ministry of Environment
MoNRE	Ministry of Natural Resources and Environment (Thailand)
MRC	Mekong River Commission
NGO	Non-governmental Organization
NWS&DB	National Water Supply & Drainage Board (Sri Lanka)
OBA	Output Based Aid (World Bank)
OECD	Organisation for Economic Co-operation and Development
PAWD	Philippine Association of Water Districts
PBA	Penang Water Supply Corporation
PCD	Pollution Control Department (Thailand)
PERPAMSI	Indonesia Water Supply Association
PHED	Public Health Engineering Department (Rajasthan, India)
PMP	Performance Management Plan
PWA	Provincial Waterworks Authority (Thailand)
PWRF-SP	Philippines Water Revolving Fund Support Program
RDMA	Regional Development Mission/Asia
REO	Regional Environment Office
SADCO	Hai Phong Sewerage and Drainage Company
RSAT	Rapid basin-wide hydropower Sustainability Assessment Tool
SEA	Strategic Environmental Assessment
SEAWUN	Southeast Asian Water Utilities Network

UNEP	United Nations Environment Programme
USAID	United States Agency for International Development
WBPCB	West Bengal Pollution Control Board
WGE	Working Group on Environment
WHO	World Health Organization
WMA	Wastewater Management Authority (Thailand)
WOP	Water Operator Partnership
WREA	Water Resources and Environment Agency
WSP	Water and Sanitation Program (World Bank)
WWF	Worldwide Fund for Nature

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SUMMARY

Under USAID contract number 486-C-00-05-00010-00, AECOM International Development (AECOM) implements the Environmental Cooperation-Asia (ECO-Asia) project in support of the Regional Environment Office (REO) of the USAID Regional Development Mission Asia (RDMA). The ECO-Asia contract has three components: (1) improved access to clean water and sanitation for the urban poor; (2) regional environmental governance and transboundary cooperation; and (3) overarching program support. In FY 2010 ECO-Asia, met or exceeded all of its targets under the Performance Management Plan (PMP) (see Table 1). This annual report provides a summary of achievements against annual program targets. The annex contains FY 2010 ECO-Asia success stories in USAID's Telling Our Story format.

Water and Sanitation

Under the Water and Sanitation component, ECO-Asia continued to increase access to reliable and sustainable water and sanitation services to support regional health security and prosperity in Asia. As the principal regional initiative implementing the Paul Simon Water for the Poor Act in Asia, ECO-Asia promotes achievement of the Millennium Development Goals (MDGs), and disseminates and replicates results through regional networks. During FY 2010, ECO-Asia implemented eight twinning partnerships in six target countries resulting in improved access to water and sanitation for 220,000 persons; adoption of 29 improved laws, policies and plans for water and sanitation service delivery; increased capacity of nearly 600 water sector practitioners; and mobilized nearly $1,500,000 in non-USAID resources. These results were in line activity targets.

One key accomplishment in FY 2010 was continued strengthening of the WaterLinks network, including implementing a range of twinning partnerships, increasing the capabilities of the WaterLinks website (www.waterlinks.org) and organizing the second WaterLinks Forum in Manila, which attracted over 100 participants. At the forum twinning partners presented their achievements in improving operational efficiencies, expanding access, and addressing water quality challenges. Water operators also took part in networking sessions to explore opportunities for new partnerships, national water associations offered ideas on their support for replication efforts, and development organizations discussed expanded cooperation in support of WaterLinks.

In partnership with International Water Association (IWA) and the Asian Development Bank (ADB), ECO-Asia represented WaterLinks in regional and international forums, and reached out to a number of multi-lateral and bi-lateral donors related to their future support for WaterLinks. In FY 2011 ECO-Asia will continue to implement all water and sanitation activities as WaterLinks activities.

In FY 2010, ECO-Asia continued to partner with the Association of Southeast Asia Nations (ASEAN) in support of the ASEAN Environmentally Sustainable Cities initiative by facilitating city-to-city twinning partnerships aimed at improved sanitation services. ASEAN continues to be a key ECO-Asia partner by supporting replication and dissemination of water and sanitation best practices.

ECO-Asia concluded its Water and Sanitation activity in China in FY 2010 with a focus on demonstrating and replicating best practices for improving and expanding water and sanitation services delivery in key urban centers through open, transparent and accountable governance systems. ECO-Asia organized a lessons learned workshop and disseminated a publication in Beijing, China to highlight results of its two-year initiative on engaging stakeholders in water services delivery in China. The workshop showcased new ways to improve both sector investment planning and water services delivery by obtaining direct feedback from stakeholders, including customers, based on pilot activities in Jiangsu, Yunnan and Guangdong Provinces.

As to sustainability, in FY 2010 ECO-Asia initiated dialogue with ADB and IWA on establishing a non-governmental organization (NGO) headquartered in the Philippines to take on the responsibilities of the WaterLinks Secretariat. In FY 2011, ECO-Asia will support efforts to establish the NGO and begin transferring some key functions related to outreach, communications and event support to the NGO. ECO-Asia also represented WaterLinks in regional and international forums, and reached out to a number of multi-lateral and bi-lateral donors related to their future support for WaterLinks.

Overall, ECO-Asia Water and Sanitation program performance is on track with mission goals. During the first five years of contract implementation, ECO-Asia has achieved program requirements by demonstrating best practices and developing strong collaborative linkages with regional partners and networks. In FY 2011, ECO-Asia will focus on scaling-up and replication of best practices using WaterLinks to further disseminate results and catalyze wide-spread adoption of solutions that are most appropriate for Asia.

Environmental Governance

For the Environmental Governance component, ECO-Asia implements two activities: (1) support for the Asian Environmental Compliance and Enforcement Network (AECEN) in promoting improved environmental compliance and enforcement; and (2) transboundary cooperation in strengthening access to improved water services in the Mekong River basin.

Asian Environmental Compliance and Enforcement Network. ECO-Asia continued to strengthen AECEN, a regional practitioner network, by serving as the AECEN Secretariat and working with AECEN member agencies at the country and regional levels on: (1) pilot projects and twinning activities on improved policies, practices and systems; (2) AECEN Annual Forum; (3) Asian Justices Forum on the Environment; (4) targeted regional studies; (5) specialized regional trainings; and (6) AECEN website (www.aecen.org).

In FY 2010, through AECEN twinning partnerships and other activities, ECO-Asia catalyzed the adoption of 10 policies, laws and regulations, and trained nearly 600 practitioners from over 80 agencies and organizations, and mobilized over $5,360,000 from non-USAID sources. These results met or exceeded activity targets.

Key results included the establishment of improved capabilities for EIA for the hydropower sector in Nepal; improved implementation of energy efficiency laws in China; development of a new self-monitoring system for industrial wastewater in Ho Chi Minh City, Vietnam; strengthened policy framework for soil contamination management in Thailand; new rules for adjudicating environmental law cases in Thailand; and scale up of compliance assistance centers in India with $5 million in leveraged funding from the World Bank. Environmental agencies from Korea, Lao PDR and Maldives joined AECEN, bringing the number of members to 19.

In FY 2010 ECO-Asia facilitated four twinning partnerships that enabled the sharing of best practices through significant cost-share of participating mentor agencies: Thailand-Japan (strengthening soil contamination policy), Japan-China (energy efficiency law), Malaysia-Nepal (EIA practices for the Hydropower sector), and Vietnam-Australia (self-monitoring and self-reporting). In FY 2011, ECO-Asia will further support implementation of these twinning activities, and initiate new partnerships.

In FY 2009, ECO-Asia also initiated a rapid assessment of environmental impact assessment (EIA) laws, policies and capabilities in Asia to identify key implementation weaknesses. In FY 2010, ECO-Asia, together with the ADB, organized a regional workshop on EIA, bringing together senior environment

agency officials and technical experts from 20 countries across the Asia-Pacific region, along with representatives from multilateral development banks and international experts in EIA. As a follow up to the workshop, AECEN issued a request for concept notes on potential twinning partnerships to share experience and best practices related to EIA, which could be implemented in FY 2011.

From its beginnings in 2005, AECEN has grown into a recognized regional platform for promoting environmental compliance in Asia. In FY 2009 ECO-Asia facilitated an offer by Japan's Institute for Global Environmental Strategies (IGES) to assume AECEN secretariat responsibilities. This process began in 2010 with IGES helping to implement a range of activities. In 2011, IGES will continue to take on AECEN secretariat responsibilities, including co-organizing the AECEN forum and opening an office in Bangkok.

Mekong Transboundary Waters. In FY 2010, ECO-Asia collaborated with Mekong River Commission (MRC), Worldwide Fund for Nature (WWF) and ADB in developing and trialing a rapid basin-wide hydropower sustainability assessment tool (RSAT) to assess the impact of multiple hydropower projects in a holistic river-basin wide context. In addition, together with WWF, ECO-Asia also facilitated the formal establishment of a transboundary management committee to address transboundary waters management of a wetland between Laos and Cambodia.

Overarching Support

ECO-Asia continued to provide program support to REO in small grants, exchanges, communications and reporting. Notable activities and accomplishments included:

- Issued ten small grants, with an average grant size of $25,000
- Facilitated 38 exchanges for 230 participants, 31% of whom were women
- Developed communications materials, including success stories and outreach materials
- Developed or enhanced the ECO-Asia, AECEN, and WaterLinks websites
- Worked closely with RDMA to support the development of REO's portion of the RDMA FY 2010 Operations Plan and Performance Plan and Report
- Assisted in the editing and production of outreach materials for other REO contractors and cooperators

Table 1: FY2010 ECO-Asia Performance Management Plan Results Summary

Indicator	Description	Target FY 2010	Result FY 2010
SO: Improved Response to Environmental Challenges in Asia			
SO 1	Number of policies and model actions applied and replicated	15	17
SO 2	Number of beneficiaries with improved environmental services	150,000	227,785
IR 1: Enabling Conditions Improved			
IR 1.1	Number of improved water and sanitation policies, laws, plans or model actions strengthened, developed, adopted, and/or implemented	20	29
IR 1.2	EG:Environment:CPE – Number of improved policies, laws, regulations, agreements related to pollution and urban environment drafted with USG assistance	10	10
IR 1.3	Number of USG-supported initiatives/mechanisms designed to reduce the potential for violent conflict over the control, exploitation, trade or protection of natural resources	3	3
IR 1.4	Number of non-governmental stakeholders engaged in environmental governance	15	44
IR 1.5	Amount of funds from non-USAID sources mobilized and applied	$963,750	$8,104,180
IR 2: Human and Institutional Capacity Strengthened			
IR 2.1	Number of key national and local institutions with increased capacity	118	118
IR 2.2	Number of people trained in improved water and sanitation practices	500	592
IR 2.3	EG:Environment:CPE – Number of people receiving USG supported training in environmental law, enforcement, public participation, and cleaner production policies, strategies, skills and techniques	400	737
IR 2.4	Number of people trained in conflict prevention and management in transboundary waters	50	77
IR 3: Model Actions Demonstrated			
IR 3.1	IIP:Health:WSS – Number of people in target areas with access to improved drinking water supply as a result of USG assistance	100,000	149,210
IR 3.2	IIP:Health:WSS – Number of people in target areas with access to improved sanitation facilities as a result of USG assistance	50,000	78,575
IR 4: Regional Platforms Strengthened to Catalyze and Sustain Change			
IR 4.1	Number of regional environmental platforms created or strengthened	3	3
IR 4.2	Number of new members in regional environmental platforms	2	2

I. BACKGROUND

Under USAID contract number 486-C-00-05-00010-00, AECOM International Development (AECOM) and its subcontractors implement the Environmental Cooperation-Asia (ECO-Asia) Water and Sanitation/Governance project in support of the Regional Environment Office (REO) of the USAID Regional Development Mission Asia (RDMA). Key program countries in FY 2010 included: China, India, Indonesia, Philippines, Sri Lanka, Thailand and Vietnam. Under the ECO-Asia contract, AECOM implements three components:

Task 1: Improved access to clean water and sanitation for the urban poor;
Task 2: Cross-cutting initiatives to improve regional environmental governance and transboundary cooperation; and
Task 3: Overarching program support.

To implement Task 1, ECO-Asia collaborates with water services providers, cities, civil society partners and regional partner organizations and networks to catalyze improved access to safe water and sanitation for the urban poor. Through pilot activities and counterpart twinning arrangements, and regional capacity building and networking activities, ECO-Asia demonstrates best practices and achieves on-the-ground impacts. ECO-Asia also promotes replication and dissemination of results and best practices through the WaterLinks network.

To accomplish Task 2, ECO-Asia works with regional partner organizations and networks to promote improved environmental governance in two areas: (1) improved enforcement of environmental laws, and (2) improved management in transboundary waters. For improved enforcement, ECO-Asia has established AECEN and serves as the network secretariat in implementing country and regional activities. To address transboundary conflict, ECO-Asia cooperates with the MRC and Worldwide Fund for Nature (WWF) and ADB to promote effective regional cooperation in the Mekong by facilitating the adoption of improved policies, plans, and mechanisms on transboundary waters.

Under Task 3, ECO-Asia provides program support for Task 1 and 2 activities, including performance monitoring and reporting, communications support, a small grants program, and an exchange program. In addition, ECO-Asia provides support to REO by collecting and organizing performance monitoring information from other RDMA environmental contractors, grantees, and other partners. ECO-Asia also provides some communications support to REO.

II. WATER SUPPLY AND SANITATION

ECO-Asia increases access to reliable and sustainable water and sanitation services to support regional health security and prosperity in Asia. Under the Water and Sanitation Program, ECO-Asia pilots and replicates innovative strategies for expanding and sustaining access to services, especially to the urban poor, through partnership with cities, water utilities and financing institutions. Key programming areas in FY 2010 included: (1) enabling safe water access; (2) promoting sustainable sanitation; and (3) strengthening water services utility performance.

As the principal regional initiative implementing the Paul Simon Water for the Poor Act in Asia, ECO-Asia promotes achievement of the MDGs, and disseminates and replicates results through regional platforms and networks, including ASEAN, South East Asia Water Utility Network (SEAWUN), World Health Organization (WHO), and World Bank's Water and Sanitation Program (WSP).

During FY 2010, ECO-Asia implemented eight twinning partnerships in six target countries resulting in improved access to water and sanitation for 220,000 persons; adoption of 29 improved laws, policies and plans for water and sanitation service delivery; increased capacity of nearly 600 water sector practitioners; and mobilized nearly $1,500,000 in non-USAID resources. These results were in line activity targets.

ECO-Asia continued to partner with ASEAN in FY 2010 in support of the ASEAN Environmentally Sustainable Cities Initiative (ASEAN ESC) and its Clean Water Framework by facilitating three city-to-city twinning partnerships with ASEAN cities, resulting in over 50,000 residents with improved access to water supply and sanitation. ECO-Asia is initiating new twinning partnerships with ASEAN cities in 2011.

In FY 2010, ECO-Asia, together with ADB and IWA further strengthened WaterLinks by drafting operational guidelines, an annual work plan and business plan and upgrading the WaterLinks website. Through active outreach efforts to other donor agencies, WaterLinks is now recognized as a platform for collaborative engagement with UN-Habitat, World Bank, WHO, bilateral aid agencies, national water associations and individual water operators from developed countries.

In FY 2010 ECO-Asia co-organized the second WaterLinks Forum in Bangkok, which attracted over 100 participants. At the forum twinning partners presented their achievements in improving operational efficiencies, expanding access, and addressing water quality challenges. Water operators also took part in networking sessions to explore opportunities for new partnerships, national water associations offered ideas on their support for replication efforts, and development organizations discussed expanded cooperation in support of WaterLinks.

ECO-Asia concluded its Water and Sanitation activity in China in FY 2010 with a focus on demonstrating and replicating best practices for improving and expanding water and sanitation services delivery in key urban centers through open, transparent and accountable governance systems. ECO-Asia organized a lessons learned workshop and disseminated a publication in Beijing, China to highlight results of its two-year initiative on engaging stakeholders in water services delivery. The workshop showcased new ways to improve both sector investment planning and water services delivery by obtaining direct feedback from stakeholders, including customers, based on pilot activities in Jiangsu, Yunnan and Guangdong Provinces.

ECO-Asia facilitated a twinning partnership between the Penang Water Supply Corporation (PBA) in Malaysia and PDAM Tirtamusi Palembang in Indonesia to achieve continuous water supply in Palembang. Through trainings on water treatment optimization, the key causes of water losses, and establishing zones to manage water losses, Palembang was able to provide a continuous water supply to 66,000 residents in a pilot area. Palembang is looking to scale-up these efforts in six other sites in FY 2011.

In Manila, Philippines ECO-Asia facilitated a twinning partnership between Indah Water Konsortium (IWK) of Malaysia and Maynilad Water Service Inc of the Philippines to assist Maynilad to improve its wastewater management operations. The twinning focused on designing wastewater collection and treatment systems networks, selecting and designing appropriate treatment technologies, and preparing tender documents. As a result of this twinning, nearly 50,000 people in Quezon City will have improved sanitation services.

In Medan, Indonesia ECO-Asia worked with PDAM Tirtanadi, the local NGO, JKM, and Maynilad Water Services, Inc to establish and train 25 community-based organizations (CBOs) to manage the new community-based water networks for 3,500 households in the Belawan area.

In Hai Phong, Vietnam, ECO-Asia facilitated a twinning partnership between the Hai Phong Sewerage and Drainage Company (SADCO) of Vietnam and Indah Water Konsortium of Malaysia to improve SADCO's capacity to manage and treat septage from septic tanks. Through the one-year partnership SADCO improved its database management, initiated sampling for wastewater influent and effluent, and drafted a septage management ordinance, one of the first in Vietnam, which has been submitted to the local government for approval. As a result of this twinning partnership, nearly 30,000 people in Hai Phong have access to improved sanitation services.

ECO-Asia facilitated a twinning between the Korean Water Resources Corporation (K-Water)-Provincial Waterworks Authority of Thailand (PWA) twinning partnership to enhance water quality management in Khon Khaen, Thailand, to improve water quality for 15,000 residents. Through a series of trainings in Khon Khaen and Daejeon, South Korea, K-Water helped to build PWA's capacity in optimizing water quality in distribution systems and on SCADA design to enhance water quality management. In addition, K-Water and PWA signed a separate side agreement that will continue their partnership after ECO-Asia support ends.

In Surabaya, Indonesia ECO-Asia facilitated a twinning partnership between KOTA Surabaya and Manila Water Company, Inc to expand access to poorer customers, under the World Bank's Output Based Aid (OBA) program. Manila Water shared their experiences with communal master meters, partnering with CBOs to manage water supplies and surveying and registering new customers. As a result of the twinning, over 10,000 people received access to improved drinking water.

ECO-Asia completed a study of septage management in the region that identifies common challenges in policy development and enforcement, implementation capacity, funding constraints, and public awareness, as well as emerging best practices and implementation models in the region. ECO-Asia will use this study to identify twinning partnerships in FY 2011 and FY 2012.

In Sri Lanka, ECO-Asia worked with CEPA, a local NGO, on a study on willingness to pay and service delivery options for low-income communities in Colombo. Study results will be used to develop guidelines on how the National Water Supply and Drainage Board and local municipalities could better target pro-poor services provision.

ECO-Asia worked with four water operators in three countries to develop promotion campaigns to expand access to services using the ECO-Asia 10-Step Promotion Program Toolkit. Based on user feedback the Toolkit was revised and strengthened and rolled out in late FY 2010.

Overall, the ECO-Asia Water and Sanitation Program performance is on track with mission plans. Over the last five years, ECO-Asia has achieved program requirements by demonstrating best practices and developing strong collaborative linkages with regional partners and networks. In FY 2011, ECO-Asia will use WaterLinks to facilitate utility twinning, capacity building and knowledge sharing to further disseminate results and achievements to catalyze wide-spread adoption of solutions that are best for Asia.

The annex contains Success Stories of FY 2010 ECO-Asia water and sanitation activities.

Summary of Accomplishments

Safe Water Access for the Urban Poor

- Completed the study on willingness to pay and service delivery options for low-income communities in Colombo, Sri Lanka. Study results will be used to develop guidelines on how the National Water Supply and Drainage Board and local municipalities could better target pro-poor services provision.
- Concluded a twinning partnership between PDAM Tirtanadi in Medan, Indonesia and Maynilad Water Services on expanding water service to poor households in Medan. During a final training visit, Maynilad led a workshop with 40 Medan stakeholders, who reviewed experiences on community outreach, technical coordination, and financial sustainability learned during this year's effort to connect the poor.
- Completed the establishment and training of 25 CBOs that will manage the new community based water networks for 3,500 households in the Belawan area, Medan, Indonesia. The CBOs will work with the municipal water operator – PDAM Tirtanadi Medan – on billing and collection, service improvements, and overall management of water supply.
- Facilitated a training event in Medan, Indonesia by Maynilad Water Services and a local NGO partner for PDAM Tirtanadi on strengthening and developing partnerships with community organizations to expand its services to the urban poor in a pilot area and to prepare design documents for scaling-up in other service areas.
- Facilitated a twinning partnership between Manila Water Company, Inc and PDAM Kota Surabaya on pro-poor initiatives for piped water services expansion, particularly related to the World Bank's OBA grant program. Trainings from the twinning focused on communal master meters, partnering with CBOs to manage water supplies and surveying and registering new customers.
- Held a close-out and replication workshop in Surabaya, Indonesia to identify strategies and tools for scaling up and replicating water services to low-income urban residents. Participants included 46 representatives from the Ministry of Public Works, the National Development Planning Agency, and the Indonesian Water Supply Association (PERPAMSI).

Sustainable Sanitation

- Completed the publication, "A Rapid Assessment of Septage Management in Asia," and launched at the Second East Asian Ministerial Conference on Sanitation and Hygiene in Manila. The assessment report indicates how key Asian countries are addressing septage and provides a roadmap for countries and regional organizations to strengthen septage management practices, and replicate good practices in the region.
- Initiated a twinning partnership between IWK of Malaysia and Maynilad Water Service Inc of the Philippines on helping to improve wastewater management operations and on increasing demand for sanitation services throughout Maynilad's service areas in Manila. Through a series of trainings, Maynilad increased its capacity in designing wastewater collection and treatment systems networks, selecting and designing appropriate treatment technologies, and preparing tender documents.
- Initiated a twinning partnership between the Hai Phong SADCO of Vietnam and IWK to improve SADCO's capacity to manage and treat septage from septic tanks, and to improve public awareness of desludging services using the ECO-Asia 10-Step Promotion Program Toolkit. Through the partnership SADCO has improved its database management, initiated sampling for wastewater influent and effluent, and drafted a septage management ordinance, one of the first in Vietnam, which has been submitted to the local government for approval.
- Facilitated an inception workshop and training session on the design of constructed wetlands wastewater treatment systems to initiate the partnership between Chia Nan University of Taiwan – Calamba Water District/Laguna Lake Development Authority (LLDA) of the Philippines. The WOP

will benefit 50,000 people in Calamba and help promote the constructed wetlands model in neighboring municipalities around Laguna Lake.

Water and Wastewater Services Utility Performance Improvements

- Jointly organized a water safety planning training and replication workshop for 35 PWA staff in Nakorn Nayok. Thailand. The training was the final initiative under the 18-month twinning partnership between PWA and Ranhill Utilities of Malaysia. .
- Facilitated a final training activity by the Los Angeles Department of Water and Power (DWP) for the Shenzhen Merchants Water Company in Shenzhen, China on management and operations of Shenzhen's newly established customer feedback services system. The training concluded a one-year partnership that helped Shenzhen to develop a customer service system linking customer feedback on water quality and other service improvement requirements. Key WOP outcomes included establishment of a 24/7 customer service team, creation of a single support telephone hotline for all customer complaints, and development of a new software system to handle customer input.
- Initiated the K-Water-PWA twinning partnership to enhance water quality management in Khon Khaen, Thailand, where PWA is currently upgrading its distribution infrastructure to improve water quality for 15,000 residents. Through a series of trainings in Khon Khaen and Daejeon, South Korea, K-Water helped to build PWA's capacity in optimizing water quality in distribution systems and on SCADA design to enhance water quality management.
- Facilitated the establishment of a twinning partnership between the Penang Water Supply Corporation (PBA) in Malaysia and PDAM Tirtamusi Palembang in Indonesia to achieve continuous water supply in Palembang. Trainings focused on water treatment optimization, understanding the key causes of water losses, establishing zones to manage water losses and enable continuous supply starting in a pilot area. These trainings supported the PDAM's efforts to develop and sustain 24-hour water service in a pilot area and to scale-up similar improvements in six other service areas.
- Initiated a twinning partnership on converting from intermittent to continuous water supply in Jaipur, India, through a partnership between Maharashtra Jeevan Pradhikaran (MJP), who successfully enabled continuous supply in Badlapur (Maharashtra), and the Public Health Engineering Department of Rajasthan (PHED), with technical support from Ranhill Utilities (Malaysia). PHED is planning to pilot the conversion process in the state capital, Jaipur.
- Organized two field visits for PHED of Rajasthan. The first visit was to observe Ranhill Utilities operations on managing continuous water supply in Malaysia and the second visit was to Badlapur, India, to observe MJP's effort to convert to intermittent to continuous water supply.

Other Notable Accomplishments and Activities

- Organized a lessons learned workshop and disseminated a publication in Beijing, China to highlight results of the two-year ECO-Asia initiative on engaging stakeholders in water services delivery in China. The workshop showcased new ways to improve both sector investment planning and water services delivery by obtaining direct feedback from stakeholders, including customers, based on pilot activities in Jiangsu, Yunnan and Guangdong Provinces.
- Co-organized a WaterLinks workshop in Beijing on promoting WOPs in China with ADB and IWA. Attended by more than 50 water companies, water supply associations, and donor agencies operating in China, the workshop showcased the effectiveness of WOPs in building capacity to manage water quality and reduce water losses, which are priority areas for many water companies in China.

- Prepared and implemented a survey in cooperation with national water associations in Indonesia, Philippines, and Vietnam to gather information on capacity building needs and priorities of water operators in the three countries.
- Developed draft roadmap for capacity building for WOP promotion and facilitation of selected national water associations in Indonesia, India, Philippines, and Vietnam.
- Supported the Philippines Association of Water Districts (PAWD) in establishing a national WOPs program. While the program will predominantly focus on promoting and facilitating partnerships in the Philippines, PAWD also plans to develop training and knowledge management initiatives similar to the WaterLinks regional capacity building activities.
- Presented WaterLinks at the ASEAN High Level Seminar on Environmentally Sustainable Cities in Jakarta, Indonesia to promote linkages with regional networks on water services delivery improvements.
- Launched a grant competition to apply the ECO-Asia 10-Step toolkit to a water, sanitation or hygiene initiative in an Asian city. Of the 30 organizations that responded, five were requested to submit full proposals. A grant was awarded to the Vietnamese NGO, CEFACOM, to work with two service providers (Son Tay Water Supply Company and the Hai Phong Drainage and Sewerage Company) to develop promotion campaigns to expand services.
- Facilitated the submission and evaluation process of the first WaterLinks Partnership Awards, which was presented at the 2010 WaterLinks Forum in recognition of the outstanding achievements of 2009 WOP partners. PDAM Tirtanadi of Medan, Indonesia and Indah Water Konsortium of Malaysia were the recipients of an award for their work expanding access to improved sanitation in Medan, while the Davao City Water District of the Philippines and Ranhill Utilities of Malaysia were recognized for their work reducing water loss in Davao and sharing their experiences with other utilities in the Philippines.
- Developed, in close coordination with ADB and IWA, a 3-year Business Plan and Organizational Framework to guide further expansion of the WaterLinks network. The business plan presents WaterLinks' scope and priorities for 2011-2013, roles and responsibilities of WaterLinks partners, key performance indicators, and an overall budget. The business plan will provide the framework for annual WaterLinks work programs.
- In cooperation with the Gender Water Alliance (GWA), drafted a gender scan methodology for water and sanitation companies to apply to improve gender mainstreaming.
- Launched a WaterLinks partnership program with the Indian Water Works Association (IWWA) at a forum in Mumbai, India, attended by 40 water operators and 20 IWWA staff. During the launch, two Indian operators, MJP and Jamshedpur Utilities & Services Company Ltd, presented their practical perspective on improving water services through WOPs.

Indicator Results Summary

As detailed in Table 3 below, ECO-Asia slightly exceeded two principal performance target for USAID common indicators – number of people with access to improved drinking water supply and number of people with access to improved sanitation facilities – due to greater than expected results in Palembang, Indonesia (for water) and Manila (for sanitation).

ECO-Asia also exceeded other programming targets due primarily to an unexpected increase in participant interest in water and sanitation programming. These indicators include amount of funds leveraged from non-USAID sources, number of institutions with increased capacity and number of practitioners trained, which are not surprising results for a successful regional program with strong regional counterpart and development partner support.

Table 3: FY2010 Water and Sanitation Performance Management Plan Results

Indicator	Description	Target FY 2010	Result FY 2010
SO: Improved response to environmental challenges in Asia			
SO 1	Number of policies and model actions applied and replicated	14	16
SO 2	Number of beneficiaries with improved environmental services	86,500	227,785
IR 1: Enabling Conditions Improved			
IR 1.1	Number of improved water and sanitation policies, laws, plans or model actions strengthened, developed, adopted, and/or implemented	18	29
IR 1.4	Number of non-governmental stakeholders engaged in environmental governance	8	8
IR 1.5	Amount of funds from non-USAID sources mobilized and applied	677,500	1,517,213
IR 2: Human and institutional capacity strengthened			
IR 2.1	Number of key national and local institutions with increased capacity	30	32
IR 2.3	Number of people trained in improved water and sanitation practices	500	591
IR 3: Model actions demonstrated			
IR 3.2	Number of people in target areas with access to improved drinking water supply as a result of USG assistance	100,000	149,210
IR 3.2	Number of people in target areas with access to improved sanitation facilities as a result of USG assistance	50,000	78,575
IR 4: Regional platforms strengthened to catalyze and sustain change			
IR 4.1	Number of regional environmental platforms created or strengthened	1	1

III. ENVIRONMENTAL GOVERNANCE

Asian Environmental Compliance and Enforcement Network

Under the Clean Productive Environment Policy and Governance sub-element, ECO-Asia is leading efforts to strengthen the Asian Environmental Compliance and Enforcement Network (AECEN), a regional practitioner network. The AECEN mission is to: (1) promote the development and implementation of improved environmental policies, laws, regulations, and institutional arrangements; (2) strengthen practitioner capacity through specialized training and skills development; and (3) facilitate regional sharing of best practices and information on strengthening compliance and enforcement. Network members are environmental regulatory agencies committed to improving compliance and enforcement through regional cooperation and information exchange.

As the AECEN Secretariat, ECO-Asia prepares an annual work plan of country and regional activities for review by the AECEN Executive Committee, which at present consists of representatives from China, India, Indonesia, Japan, Singapore, Sri Lanka, Thailand, USAID ADB and UNEP. ECO-Asia supports the Committee in the performance of its tasks, including organizing committee meetings to review activity implementation and plans. ECO-Asia also develops and maintains the AECEN website to highlight network activities and provide information resources for members and the public.

With support from RDMA, the U.S. Environmental Protection Agency (EPA) is a core AECEN partner, providing technical assistance and training support. The ADB and World Bank contribute direct funding resources and technical expertise.

In FY 2010, through AECEN twinning partnerships and other activities, ECO-Asia catalyzed the adoption of 10 policies, laws and regulations; trained nearly 600 practitioners from over 80 agencies and organizations; and mobilized over $5,360,000 from non-USAID sources. These results met or exceeded activity targets.

Key results included the establishment of improved capabilities for EIA for the hydropower sector in Nepal; improved implementation of energy efficiency laws in China; development of a new self-monitoring system for industrial wastewater in Ho Chi Minh City, Vietnam; strengthened policy framework for soil contamination management in Thailand; new rules for adjudicating environmental law cases in Thailand, and scale up of compliance assistance centers in India with $5 million in leveraged funding from the World Bank. Environmental agencies from Lao PDR, Korea and Maldives joined AECEN, bringing the number of members to 19.

In FY 2010, Japan's Institute for Global Environmental Strategies began to assume some responsibilities from RDMA as the legacy organization for AECEN and future AECEN secretariat. The transition will continue through FY 2011 and FY 2012.

The annex contains Success Stories on ECO-Asia's environmental governance activities that were developed during FY 2010.

Summary of Accomplishments

During FY 2010, ECO-Asia continued to strengthen and expand AECEN through a range of country and regional activities. The AECEN Annual Forum in Singapore in November 2009 both achieved programmatic goals, and expanded the reach of the network.

Major FY 2010 accomplishments include:

- Facilitated membership by Lao PDR Water Resources and Environment Agency (WREA), Korea's Ministry of Environment (MOE) and the Maldives Environmental Protection Agency (EPA) to AECEN.
- Organized the annual AECEN Regional Forum and UNEP intergovernmental meeting in Singapore with three days of plenary and targeted workshop discussions on strengthening enforcement and compliance of environmental laws. Hosted by the Singapore National Environmental Agency, the countries issued a statement calling for Asian governments to promote improved environmental compliance with national legal requirements and international commitments.
- Developed and launched an institutional video on AECEN to support expanded development partner and member support for the network at the annual AECEN Forum.
- Convened the AECEN Executive Committee meeting, AECEN National Coordinators' Meeting, and AECEN Development Partner's meeting, in conjunction with the AECEN Regional Forum

- Awarded the second award for the Award for Outstanding Service and Commitment by a Woman to Dr. Monthip Sriratana Tabucanon, Principal Inspector General of the Thailand Ministry of Natural Resources and Environment at the AECEN Regional Forum in Singapore.
- Launched a new initiative to establish an environmental compliance assistance center (ECAC) for the chemicals and petrochemicals sector in collaboration with the West Bengal Pollution Control Board (WBPCB). This center replicates and expands a similar center for the sponge iron sector as well as enables target industries to achieve better environmental compliance through improved access to information on technologies and legal requirements. The ECAC – Sponge Iron of West Bengal in collaboration with WBPCB conducted two workshops in Kolkata with stakeholders from lead acid battery, secondary smelting processing industry, dying and textile processing industry to identify appropriate model, roles and responsibilities and activities of the new environmental compliance assistance center.
- Linked Supreme Courts from Indonesia, Thailand and Philippine to improve environmental adjudication in partnership with UNEP. Justices from the Supreme Court of Indonesia, High Court of Sumatera, and Ministry of Environment visited Thailand and Philippines to meet with counterparts and identify strategies for replicating the "green benches" and developing a judicial certification program in Indonesia.
- Facilitated twinning partnership between Thailand's Courts of Justice and the Land and Environment Court of New South Wales to support the development of new rules on environmental mediation and expert witness and new law on environmental adjudication procedure.
- Facilitated a twinning partnership on hydropower planning between the Nepal Ministry of Environment and Malaysia Department of Environment, which included training on institutional reforms, a new curriculum for training EIA consultants, EIA enforcement standard operating procedures, and monitoring and environmental auditing.
- Discussed with IGES and Chinese counterparts from Tsinghua University the next steps of the twinning partnership on energy efficiency between China and Japan. In a meeting in Kyoto, Japan, partners agreed on the coverage of policy review and information exchanges to include concrete examples of innovative approaches used at particular prefectures or cities in Japan.
- Prepared a discussion paper on replication and scaling up strategies that can be used for guidance as AECEN moves from pilot level activities to expansion at national and regional levels.
- Organized, jointly with the ADB, a regional workshop on EIA, bringing together senior environment agency officials and technical experts from 20 countries across the Asia-Pacific region, along with representatives from multilateral development banks and international experts in EIA. As a result of the workshop, launched a new multi-year initiative to strengthen capabilities in EIA across Asia and the Pacific. As a follow up to the workshop, AECEN issued a request for concept notes on potential twinning partnerships to share experience and best practices related to EIA.
- Facilitated development of a roadmap for addressing soil contamination at a side event to the International Forum for Sustainable Asia and the Pacific: ISAP 2010. Over 30 regulatory agency officials from India, Indonesia, Japan, Malaysia, Philippines, Thailand, and Vietnam met in Yokohama to share best practices, policies, and innovative approaches and lessons learned from Asian countries on land contamination, and identified a regional roadmap for sharing best practices.
- Established a twinning partnership between the Department of Natural Resources and Environment (DONRE) of Ho Chi Minh City (HCMC) and the Department of Environment, Climate Change and Water (DECCW) of New South Wales, Australia to reduce industrial pollution in Ho Chi Minh City. Vietnamese delegation from DONRE visited Sydney for an observational program focusing on industry self-monitoring, self-reporting and recordkeeping of environmental performance. The activity also represents the first partnership activity between AECEN and the Australasian Environmental Law Enforcement and Regulators Network (AELERT).
- Facilitated discussion between Thai Pollution Control Department (PCD) and IGES to develop capacity building program for PCD officials on soil contamination countermeasures. Funded by

PCD, IGES and PCD organized a capacity building workshop in Bangkok to provide technical training on soil contamination countermeasures.

- Continued to facilitate a twinning" partnership between the Japanese Ministry of Environment and the Chinese Society of Environmental Scientists (CSES) and Tsinghua University to build the capacity of local agencies on implementing energy efficiency laws. Local officials and experts from China met with counterparts from Kawasaki, Japan and other Japanese experts to share experience on implementing energy efficiency law and policies. Based on this dialogue, the partners will develop a training program for local agencies in China.
- Co-hosted a meeting for over 30 senior justices from Australia, China, India, Indonesia, Japan, New Zealand, Philippines, Thailand and the United States to share best practices on environmental adjudication, and to provide technical inputs to the development of new rules in Thailand on environmental adjudication, environmental expert witnesses and environmental mediation.
- Facilitated regional dialogue among senior justices from Australia, China, India, Indonesia, Japan, New Zealand, Philippines, Thailand and the United States to identify possible strategies for promoting regional replication and scale-up of best practices and identify development partner cooperation opportunities to support the regional replication strategies.
- Released call for concept notes on possible twinning partnerships to build capacity for EIA in Asia. Based on a concept note submitted by China, facilitated twinning partnership between China Ministry of Environmental Protection and Sri Lanka Central Environmental Authority to commence in FY 2011.
- Discussed with Vietnam Ministry of Natural Resources and Korea Ministry of Environment on twinning on promoting effective soil contamination management in Vietnam. Both agencies saw this as a relevant undertaking and will finalize details for FY 2011 implementation.
- Facilitated discussion between Thailand Ministry of Natural Resources and Environment (MoNRE) and New Zealand Ministry for the Environment arrangement to develop a twinning partnership to promote public participation in water management and pollution control to enhance compliance and enforcement in a selected river basin, based on priorities identified by Thailand MoNRE.

Indicator Results Summary

RDMA met or exceeded principal performance targets for two USAID common indicators – number of improved policies and laws, and number of people receiving training – due to an increasingly strong support by AECEN members and donor partners for AECEN activities. In addition, RDMA exceeded targets for amount of non-USAID funds mobilized and number of institutions with increased capacity.

Taken together, these greater-than-expected results reflect the growth and increasing importance of AECEN as a regional platform, and the ability of AECEN to catalyze and replicate positive change. In FY 2011, ECO-Asia will continue to dedicate resources to enhancing the sustainability of AECEN.

Table 4: FY 2010 AECEN Performance Management Plan Results

Indicator	Description	Target FY 2010	Result FY 2010
SO: Improved response to environmental challenges in Asia			
SO 1	Number of policies and model actions applied and replicated	1	1
IR 1: Enabling Conditions Improved			
IR 1.2	Number of improved policies, laws, regulations, agreements related to pollution and urban environment drafted with USG assistance	10	10
IR 1.4	Number of non-governmental stakeholders engaged in environmental governance	6	15
IR 1.5	Amount of funds from non-USAID sources mobilized and applied	$ 265,000	$6,338,156
IR 2: Human and institutional capacity strengthened			
IR 2.1	Number of key national and local institutions with increased capacity	82	82
IR 2.3	Number of people receiving USG supported training in environmental law, enforcement, public participation, and cleaner production policies, strategies, skills and techniques	400	737
IR 4: Regional platforms strengthened to catalyze and sustain change			
IR 4.1	Number of regional environmental platforms created or strengthened	1	1
IR 4.2	Number of new members in regional environmental platforms	1	1

Transboundary Conflict Prevention and Management in the Mekong River Basin

In FY 2010, ECO-Asia collaborated with Mekong River Commission (MRC), Worldwide Fund for Nature (WWF) and ADB in developing and trialing a rapid basin-wide hydropower sustainability assessment tool (RSAT) to assess the impact of multiple hydropower projects in a holistic river-basin wide context. In addition, together with WWF, RDMA also facilitated the formal establishment of a transboundary management committee to address transboundary waters management of a wetland between Laos and Cambodia. In 2011, RDMA will continue to work with partners to strengthen and test the RSAT across the Mekong and build the capacity of the transboundary committee.

As detailed in Table 5 below, ECO-Asia met or exceeded all targets.

Summary of Accomplishments

- Continued meetings and dialogue with the MRC and WWF on expanding cooperation under the Environmental Considerations for Sustainable Hydropower Development project in support of the Lower Mekong Initiative.
- Presented an ECO-Asia's work plan on accelerating the adoption of Strategic Environmental Assessment (SEA) through experience sharing and twinning partnerships, targeting specific Greater Mekong Sub-region (GMS) economic corridors addressing hydropower and water resources management, at the 16th Annual Meeting for GMS Working Group on Environment (WGE), organized by the ADB. Receiving positive feedback, the work plan concept was endorsed by WGE members who expressed interest in pursuing the twinning partnerships.

- In collaboration with WWF, facilitated a series of meetings between the Department of Livestock and Fisheries (DLF) of Lao and Fisheries Administration (FiA) of Cambodia. As a result of these meetings a transboundary committee was established to manage joint wetland resources in the Mekong River along the Stung Treng-Champasak area, with a Memorandum of Understanding, co-signed at the ministerial levels in both countries, to provide a framework for a Memorandum of Agreement to establish and convene the committee; and broad agreement on the mandate and key functions of the committee.
- In collaboration with the ADB, MRC and WWF, completed two trial workshops for the draft Rapid Basin-wide Hydropower Sustainability Assessment Tool (RSAT), held at the MRC in Vientiane in July 2010. With positive feedback from stakeholders and potential users of the tool, among which are the Technical Review Group and the National Mekong Committees of the MRC, the draft RSAT was modified and endorsed, resulting in the RSAT version 3 which was published for dissemination with the support of ECO-Asia and the MRC in September 2010.

Table 5: FY 2010 Transboundary Conflict Performance Management Plan Results

Indicator	Description	Target FY 2010	Result FY 2010
IR 1: Enabling Conditions Improved			
IR 1.3	Number of USG-supported initiatives/mechanisms designed to reduce the potential for violent conflict over the control, exploitation, trade or protection of natural resources	2	2
IR 1.4	Number of non-governmental stakeholders engaged in environmental governance	1	1
IR 1.5	Amount of funds from non-USAID sources mobilized and applied	$21,250	$248,500
IR 2: Human and institutional capacity strengthened			
IR 2.2	Number of key national and local institutions with increased capacity	4	4
IR 2.5	Number of people trained in conflict prevention and management in transboundary waters	50	77
IR 4: Regional platforms strengthened to catalyze and sustain change			
IR 4.1	Number of regional environmental platforms created or strengthened	1	1

IV. OVERARCHING SUPPORT

Small Grants Program

ECO-Asia issued ten small grants in FY 2010: (1)Manila Water Company, Inc to Expand water services to the urban poor with PDAM Kota Surabaya, Indonesia; (2) Penang Water Supply Corporation to improve operational efficiencies in Palembang, Indonesia; (3) Gender and Water Alliance to develop a gender scan methodology for water & sanitation utilities; (4) Ranhill Utilities Berhad to enable continuous water supply in Jaipur, India; (5) Institute for Global Environmental Strategies on energy efficiency; (6) West Bengal Pollution Control Board to promote improved environmental compliance in the selected CPI sub sectors; (7) IGES to develop legal framework and capacity on soil contamination countermeasures in Thailand; (8) IGES to support the regional workshop: (9) Research Center for Family Health and Community Development to apply the ECO-Asia 10-Step Promotion Toolkit to Water and Sanitation Initiatives in Vietnam; and (10) Environment Institute of Malaysia to strengthen the

capacity of the Nepal Ministry of Environment to effectively implement the Environmental Impact Assessment (EIA) in the hydropower sector.

Participant Exchange Program

In FY 2010 ECO-Asia facilitated 38 exchanges for 230 participants, 31% of whom were women. Water and sanitation exchanges involved 118 participants, AECEN exchanges included 106 participants and MRC exchanges involved 6 participants. Total cost share for the exchanges was $80,971 or 29% of total cost.

Communications

ECO-Asia continued to develop communications materials, including outreach materials, and continued populating the ECO-Asia, AECEN and WaterLinks websites. Some notable communication products include:

- Updated REO promotional material and developed communications materials for other REO contractors
- Delivered 15 new Telling Our Story articles to RDMA
- Revamped the WaterLinks and AECEN websites
- Supported major events with talking points and news releases, including the AECEN regional forum and the WaterLinks forum
- Continued gathering, editing and transmitting to REO, Weekly Report items
- Updated the ECO-Asia brochure

Program Reporting

In early FY 2010, ECO-Asia worked closely with RDMA to support the development of REO's portion of the RDMA FY 2010 Operations Plan. ECO-Asia helped identify programming strategy for tasks under contract, and assisted with communications materials supporting ongoing ECO-Asia activities, and activities of other REO contractors and cooperators. ECO-Asia also assisted RDMA in preparing the 2010 Performance Plan and Report.

V. ANNEX: SUCCESS STORIES

- Community Based Services Bring Water to Indonesia's Urban Poor
- Surabaya Better Equipped to Deliver Water to Its Poor
- Palembang Delivers Continuous Water Supply, A First
- Safeguarding Public Health in Khon Khaen
- Vietnamese City Develops Model Urban Sanitation Program
- Philippine Utility Ready to Scale-up Wastewater Services
- Expanding Water Services through Outreach
- China Builds Capacity in Energy Efficiency
- Nepal Strengthens EIA Practices to Speed Sustainable Hydropower
- Vietnam Improves Environmental Performance Reporting
- AECEN Launches New Regional Initiative on "EIA"
- AECEN Establishes Task Force to Speed Regional Replication
- Thai Court Develops New Rules on Environmental Adjudication
- Cambodia and Lao to Jointly Manage Transboundary Resources in Mekong
- Mekong Countries Assess Basin-Wide Impact of Hydropower Dams

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BEFORE & AFTER

Community Based Services Bring Water to Indonesia's Urban Poor

Low-income residents in Surabaya receive piped water in their homes for the first time

With financial support from a World Bank Output-Based Aid (OBA) scheme, PDAM Surabaya, the water provider in Indonesia's second-largest city, initiated an ambitious program to deliver piped water to the poor for the first time. Previously, the poor had to purchase water at high prices from private vendors.

To help implement the OBA scheme, USAID piloted a master meter approach, where a bulk meter and a community managed piped network supply water in the difficult-to-reach community of Jetis in Surabaya.

ECO-Asia helped identify eligible households and facilitated a water operator partnership with Manila Water Company, while USAID Indonesia financed the downstream pipe network and trained the community in managing and maintaining the water distribution system.

Encouraged by the operation of the first scheme in the Jetis neighborhood, PDAM Surabaya is now expanding the scheme to nine other neighborhoods, benefiting some 1,800 people.

U.S. Agency for International Development
www.usaid.gov

Luke Duggleby/ECO-Asia

BEFORE People in the Jetis community were dependent on costly water from vendors for their drinking, cooking and washing needs.

Fenita Rosaria/ECO-Asia

AFTER With assistance from USAID, the Jetis community now has piped water in their homes. A community based organization works with the local water company to bill residents and to maintain the system.

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FIRST PERSON

Surabaya Better Equipped to Deliver Water to Its Poor

Water utility staff applies tested approaches in connecting over 23,000 poor residents

Fenita Rosaria/ECO-Asia

Eko Saputra of Surabaya Water Company works closely with community facilitators to register new customers.

"This partnership with Manila Water and assistance from USAID has helped us to increase service coverage in low-income areas."
— Eko Saputra, 31, Planning Department, PDAM Kota Surabaya

As a member of the company's planning department in Surabaya, Indonesia, Eko Saputra, 31, is responsible for working with households that are applying for subsidized connections to piped water services. Despite his personal desire to serve all applicants, his department must turn down many requests due to unclear land ownership and insufficient space to lay pipes.

In 2009, in an effort to serve more poor households, the Surabaya Water Company received assistance through a World Bank-funded output-based aid (OBA) program where the company is reimbursed for investments after low-income households are connected.

To support the program, USAID's Environmental Cooperation-Asia (ECO-Asia) project facilitated a WaterLinks water operator partnership with Manila Water Company, which has successfully connected over 1.7 million poor residents in Manila, Philippines. Eko participated in training sessions in Indonesia and the Philippines, and gained new knowledge and skills related to surveying, communal master meter systems, and customer outreach. In a field visit to Manila's slums, he got a first-hand understanding of how Manila Water successfully addresses community concerns. He was impressed to see how Manila Water employees have direct responsibility in the field related to service provision, from the initial scoping of an expansion to billing and maintenance.

Based on the approach of Manila Water, Surabaya now empowers Eko to take responsibility for certain neighborhood and work directly with community leaders, thereby simplifying the connection process. Eko works closely with community facilitators to register new customers, and also to quickly offer subsidized water connections if customers are ineligible for OBA. In 2010 Surabaya expanded service to about 4,300 poor households reaching over 23,000 residents, and plans to reach an additional 15,000 households over the next three years.

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SUCCESS STORY

Palembang Delivers Continuous Water Supply, A First.

More than 65,000 residents in Palembang, Indonesia have 24/7 supply through partnership with Penang, Malaysia.

Arie Istandar/ECO-Asia

Experts from Penang, Malaysia review PDAM Tirta Musi's plans to initiate increased water flow in the pilot area.

"Our partnership with Penang not only helped build our capacity but also our confidence to provide continuous water supply effectively. We are planning to improve service delivery for all of Palembang residents"
- Ir. H Syaiful
Managing Director, PDAM Tirta Musi

In Palembang, Indonesia's oldest city, water supply services are intermittent, due in part to poorly managed water distribution system. For PDAM Tirta Musi, the city's water operator, this constraint not only reduces its operational efficiencies and financial standing, but also poses potential health risks to residents as contaminants could enter system pipelines as a result of intermittent service.

In 2010, with assistance from the Environmental Cooperation-Asia (ECO-Asia) project, USAID facilitated a water operator partnership between PDAM Tirta Musi and Penang Water Supply Co. (PBA), a Malaysian water operator known for providing continuous supply through robust water loss reduction and water distribution management. In the 18-month partnership, facilitated under the WaterLinks network, PBA worked with PDAM Tirta Musi to implement a step-by-step strategy for converting from intermittent to continuous supply.

Partnership activities included classroom and hands-on training and technical visits, focusing on readily applicable methods for achieving continuous supply. PBA helped PDAM Tirta Musi to design and build a pilot zone, and test supply increase from 12 to 24 hours per day. PBA shared experiences on managing pressure, distributing water flow, and addressing leakages. To ensure long-term service reliability, PBA also guided PDAM Tirta Musi to improve its infrastructure procurement processes that highlight quality materials and workmanship. More than 50 PDAM Tirta Musi staff visited PBA to attend specialized training and observe innovative methods in operating continuous water supply zones and managing assets.

With PBA support, PDAM Tirta Musi has successfully reduced water losses in the pilot area by 20 per cent and enabled continuous supply. Building on this success, it has scaled-up its efforts to 15 additional zones to benefit more than 65,000 residents with continuous water supply. PDAM Tirta Musi's approach serves as a model for other water companies in Indonesia, and it is planning to share its practical experiences with other water operators.

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CASE STUDY

Safeguarding Public Health in Khon Khaen

Thailand Water Operator Removes Contaminants from Water Supply through Partnership with Korea

Arie Istandar/ECO-Asia

PWA and K-Water partnered to review pre-treatment facilities and discuss potential improvements to remove turbidity.

"PWA remains committed to supply clean water to our customers. With K-Water's help, we are delivering this commitment to residents of Khon Khaen. We are looking to replicate these improvements in water quality management to our other waterworks" – Mr. Wiset Chamnarnwong, PWA Governor

Challenge

The Provincial Waterworks Authority of Thailand (PWA), which operates 228 water works across Thailand, is increasingly facing deteriorating water supply quality. Its Khon Khaen waterworks, one of the largest in its network, experiences turbid treated water and irregular residual chlorine in the pipe network. Khon Khaen also lacks proper water quality monitoring systems to detect system breakdown, which pose public health risks for residents, especially if contaminants remain in the distribution system.

Initiative

With support from the Environmental Cooperation – Asia (ECO-Asia) project, USAID created a WaterLinks water operator partnership between PWA and the Korea Water Resources Co. (K-Water), an established national water services provider for South Korea, to help PWA ensure safe water supply provision in Khon Khaen. With assistance from K-Water, PWA assessed and analyzed in detail its water treatment and distribution operations. Using these results and with guidance from K-Water, PWA optimized pre-treatment and filtration mechanisms to better manage turbidity, and put in place a booster pump for the pipe network to sustain adequate residual chlorine for use in eliminating contaminants. K-Water also helped PWA to design an automated monitoring system to relay and administer real-time information on water quality and treatment processes.

Results

With the ongoing Khon Khaen facility upgrades, PWA is effectively removing high turbidity levels in raw water and stabilizing chlorine residual levels in its pipe network to well within required standards for destroying harmful contaminants. Its advanced monitoring system will provide early warning for treatment failures. Once in place, these improvements will ensure safe water supply for more than 80,000 Khon Khaen residents. PWA considers this facility a model and plans to replicate the innovations for its other waterworks in Thailand.

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SUCCESS STORY

Vietnamese City Develops Model Urban Sanitation Program

Hai Phong improves septage services with Malaysian counterpart's assistance

Linda Shi/ECO-Asia

Experts from Indah Water Konsortium, Malaysia's national wastewater services provider, help their Vietnamese partners review Hai Phong's treatment facility's design and operations.

"IWK introduced us to many best practices that will help us improve our services, which in turn will build customer trust and willingness to fund wastewater programs."
- Mr. Nguyen Minh Tuan
Director of Hai Phong Sewerage and Drainage Company

Residents of Hai Phong, Vietnam's third largest city, depend for their sanitation needs on septic tanks, which is the most common form of sanitation in Vietnam. Hai Phong's Sewerage and Drainage Company (SADCO) is among the first urban services provider in Vietnam to develop collection and treatment infrastructure for septage, or the sludge that accumulates in septic tanks. At its current scale of operations, however, SADCO serves less than five percent of residents each year, leading households to rely on private collectors, some of which illegally dispose of septage, resulting in high levels of water pollution.

To help SADCO address the barriers to scaling up service – including funding limitations, absence of local regulations and inefficient operations – in 2010 USAID's Environmental Co-operation-Asia program facilitated a water operator partnership between SADCO and Indah Water Konsortium (IWK), Malaysia's national wastewater operator, through the WaterLinks network. Drawing on its 20 years of experience with septage management, IWK observed and evaluated SADCO's treatment facilities and operations, and provided hands-on training. As a result, SADCO upgraded its recordkeeping and database systems, evaluated equipment efficiency, and for the first time, tested effluent quality to determine the facility's treatment efficacy. In 2010, SADCO desludged some 5,500 septic tanks, benefiting over 27,000 people.

With assistance from IWK, SADCO also drafted a regulation that mandates proper septage collection and treatment, requires household acceptance of desludging services, and requires private collectors to demonstrate sound recordkeeping in order to be issued a city permit. Once adopted by the city, the policy will obligate Hai Phong to allocate adequate funding for SADCO to conduct regular desludging for all properties.

With a regulation, management system and collection and treatment infrastructure in place, SADCO is on its way to becoming a model for septage management in Vietnam. ECO-Asia is working with the Vietnam Waterworks and Sewerage Association to replicate these best practices nationwide.

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SUCCESS STORY

Philippine Utility Ready to Scale-Up Wastewater Services

Metro Manila utility will build 2 facilities serving 50,000 people with guidance from Malaysian counterpart

Linda Shi/ECO-Asia

Maynilad delegates visit IWK's wastewater infrastructure training facility to learn how to design and operate its planned combined sewer networks.

"This training really helped us a lot. In such a short time, it has boosted the confidence level of our management and operations staff responsible in the implementation of wastewater projects."
- Tony Garcia
Head of Sewerage Services, Maynilad Water Services, Inc.

With direct sewer connections for only five percent of its residents, Metro Manila has long faced significant challenges in collecting and treating municipal wastewater. Over 85 percent of residents use septic tanks, which drain into urban stormwater collectors and empty into water bodies that have become open sewers. To address this challenge, Maynilad Water Services, Inc., one of Metro Manila's two water services providers, plans to construct new combined sewer collection networks and treatment facilities that will serve over one million people. As a water services provider, however, Maynilad needed technical assistance in developing new wastewater systems.

To support Maynilad's efforts, Environmental Cooperation-Asia, a regional program of USAID, facilitated a water operator partnership between Maynilad and Indah Water Konsortium (IWK) in 2010 through the WaterLinks network. As Malaysia's national sewerage services provider, IWK is an expert in planning, designing, building and managing wastewater infrastructure and well positioned to train Maynilad to facility design.

Over the course of the ten-month partnership, IWK led four hands-on training workshops on designing collection networks, developing schematic designs for treatment facilities, and selecting appropriate treatment technologies to overcome land availability constraints. During a visit by Maynilad to IWK facilities, IWK also introduced its partner to new technologies and systems at the Malaysia Water Week Conference in Kuala Lumpur. Maynilad also developed a model terms of reference for sewerage projects, based on IWK's experience and consultations, thereby setting a high standard for design-build contractors.

With IWK's assistance, Maynilad issued contracts to develop high-performance combined sewer systems for 50,000 residents by 2011. Drawing on this design experience and model documents and processes, Maynilad will be able to scale up its wastewater management services. By 2012, Maynilad aims to develop another 10 treatment facilities that will treat the wastewater of over 2.3 million people.

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SUCCESS STORY

Expanding Water Services Through Outreach

USAID's *10-Step Promotion Toolkit* helps to expand services to 20,000 in Indonesia, Philippines and Vietnam

J. Kovolski/ECO-Asia

Staff from the Hai Phong Sewage and Drainage Company in Vietnam register new households for septic tank delsudging during promotion campaign.

"The 10-Step Promotion Program Toolkit is the best. Its systematic approach is really helping us to develop a promotion program that is action-orientated, effective, economical and targeted, helping us to expand our water services to the urban poor."
- Norma Diarini
Finance Officer
PDAM Jombang, Indonesia

As Asia's urban populations expand, water services providers are continually investing in infrastructure to anticipate the increased demand for services, especially for new or underserved communities. Yet, as these new or expanded systems come online, services providers are finding there is lag in consumer connections. Without new customers, utilities and cities face challenges not only in repaying their investment costs, but also in maintaining their newly installed infrastructure. In many cases, the lack of new customers relates more to a lack of awareness of new service availability, rather than customer inability or unwillingness to pay for the services. When potential customers learn about new services and the associated health and economic benefits, the vast majority apply and regularly pay for new services.

To assist water service providers in expanding services connections, USAID's Environmental Cooperation-Asia (ECO-Asia) project developed a *10-Step Promotion Program Toolkit* that enables water services providers to design, develop, implement and evaluation services promotion campaigns that increase public awareness. Through a step-by-step approach, services providers develop new tools and systems to develop targeted outreach campaigns that reflect specific conditions and needs on the ground. This targeted approach ensures that the provider's message is relevant and understandable to the target audience, increasing the likelihood of new connections.

In FY 2010, ECO-Asia worked with four water services providers in Indonesia, Philippines and Vietnam to develop and implement promotion campaigns to expand water and sanitation services. As part of this effort, ECO-Asia also facilitated linkages between providers to share know-how and experience through WaterLinks twinning partnerships. As a result of these promotion campaigns, providers are better positioned to connect over 20,000 new people, including in underserved urban areas. In 2011, ECO-Asia will expand promotion activities and significantly expand efforts in target countries and improve and update the Toolkit.

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CASE STUDY

China Builds Capacity in Energy Efficiency

China and Japan share experience to improve energy efficiency at the local level in China.

ECO-Asia Photo

Local officials and experts from Kawasaki City in Japan share experience on energy efficiency with counterparts from China.

Challenge

Rapid industrialization and urbanization has led to increasing energy consumption and escalating greenhouse gas emissions across Asia, including in Japan and in the People's Republic of China. Both countries have made continuous efforts to promote energy conservation and efficiency. In China, the Law on Energy Conservation (LEC), adopted in 1997 and revised in 2007, provides mechanisms and incentives to ensure energy efficiency targets are met. Effective implementation and enforcement of the LEC remains a national priority, however, as China works to strengthen the capacity of national and local authorities.

Initiative

Under the Asian Environmental Compliance and Enforcement Network (AECEN) twinning program, China's Ministry of Environmental Protection (MEP) and Japan's Ministry of Environment (MOE) established a bilateral dialogue to identify new institutional mechanisms and capacity building tools to support local Chinese regulatory agencies in better implementing the LEC. Facilitated by Japan's Institute for Global Environmental Strategies (IGES), the Chinese Society of Environmental Scientists (CSES) and Tsinghua University, the partnership linked officials from Shanghai, Baoding and Dunhuang, China with counterparts in Kawasaki City, Japan to identify capacity challenges and solutions.

Results

Through technical exchange, site visits and city consultations, counterparts from Dunhuang and Kawasaki City identified new strategies and approaches for reducing urban and industrial energy consumption. Partners are consolidating best practices into a new training manual for officials and staff within the responsible local agencies. Subject to feedback from stake-holders, the manual will be piloted in a selected municipality, and then disseminated and replicated in other cities across China by Tsinghua University.

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CASE STUDY

Nepal Strengthens EIA Practices to Speed Sustainable Hydropower

Malaysia partners with Nepal to help develop consultant roster and establish new training program

USAID

Nepal faces an ongoing challenge in bringing hydropower projects on line. Power outages in Kathmandu can be as much as 18 hours a day.

Challenge

With only about 15 percent of rural households having access to electricity, expanding hydropower is a top priority in Nepal. To develop new or expanded hydropower systems, the Nepal Ministry of Environment (MOE) is working to strengthen its systems and capabilities for conducting environmental impact assessments (EIA). Priority challenges of the Ministry include: (1) improving the quality of EIA reports; (2) processing EIA reports within the stipulated time frame; (3) creating accurate baseline data; (4) ensuring quality of consultants; and (5) building human resource capabilities.

Initiative

To strengthen current EIA policies and practices in Nepal, the Asian Environmental Compliance and Enforcement Network (AECEN), with support from the USAID Environmental Cooperation-Asia (ECO-Asia) project, facilitated a twinning arrangement between the Malaysia Department of Environment (DOE) and MOE. The World Bank is also collaborating in the partnership under their Nepal Strategic Environmental and Social Assessment of the Hydropower Sector (SESA) initiative. Under this partnership, Nepal MOE and Malaysia DOE partnered to develop an EIA consultant registration scheme based on DOE's experience in running a similar program. The twinning partnership included consultation workshops, exchanges of information and materials and a comprehensive, intensive training conducted by the Environmental Institute of Malaysia (EIMAS) for senior officials from relevant agencies from Nepal.

Results

As a result of the dialogue and training, in 2010 Nepal developed draft criteria for registration of EIA consultants and a proposed orientation and training program for EIA practitioners under the registration scheme. Both drafts have been presented in a broad stakeholder consultation and have been endorsed to all relevant ministries for further discussions and refinement. In 2011, through continued AECEN twinning with Malaysia and cooperation under SESA, experts from Tribhuvan University will assist the Nepal MOE in developing the related manuals and materials to fully implement the scheme and build critical capacity.

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CASE STUDY

Vietnam Improves Environmental Performance Reporting

Peer-to-peer exchanges between Vietnam and Australia strengthen industry self-reporting in Ho Chi Minh City

Ornsaran Pomme Manuamorn/ECO-Asia

Government officials from New South Wales, Australia share experience with environmental officials from Ho Chi Minh City, Vietnam on regulating pollution from industrial enterprises.

"We highly appreciate the knowledge and information gathered during the observational program. Many principles and ideas can be taken back to inform the reform efforts at DONRE"
– Mr. Dao Anh Kiet, DONRE Director

Challenge

Ho Chi Minh City (HCMC) is the industrial heart in Vietnam, comprising both heavy industries and small and medium-sized enterprises. While the local government has constructed 14 industrial parks in the city, most industries are still located within densely populated residential areas, and have the potential for significant impacts to the environment and human health. To better manage the industrial pollution, the Department of Natural Resources and Environment (DONRE) of HCMC promulgated regulations which require industrial enterprises to self-monitor pollution discharges and report to DONRE, but enforcement remains a major challenge.

Initiative

Through its support to the Asian Environmental Compliance and Enforcement Network (AECEN), USAID's Environmental Cooperation-Asia (ECO-Asia) project facilitated a "twinning" partnership between DONRE and the Department of Environment, Climate Change and Water (DECCW) of New South Wales, Australia with assistance from the Australasian Environmental Law Enforcement and Regulators Network (AELERT). Through the partnership, DONRE and DECCW counterparts engaged in technical exchanges, including a visit by DONRE decision-makers to Sydney to observe first-hand DECCW practices for implementing an industry environmental performance monitoring and reporting program.

Results

Based on experience and good practices shared by Australia, DONRE has drafted an improved and standardized self-reporting form and guideline for wastewater discharge for use by priority industries in HCMC. In 2011, DONRE will continue to improve self-monitoring, self-reporting and recordkeeping procedures and tools with support from DECCW through technical exchanges and training. USAID will continue to support the twinning partnership and explore opportunities to replicate the improved reporting practice to other cities in Vietnam.

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SUCCESS STORY

AECEN Launches New Regional Initiative on "EIA"

AECEN and ADB conduct regional study and capacity building workshop on EIA

Omsaran Pomme Manuamorn/ECO-Asia

EIA practitioners share experience and identify partnership opportunities at the regional workshop.

"An objective of the workshop is to understand country perspectives on their capacity needs and priorities so that capacity development initiatives can be better targeted."

— Mr. Nessim J. Ahmad, Director of the Environment and Social Safeguards Division (RSES), ADB

Despite an impressive array of legislation and sophisticated processes on environmental impact assessment (EIA) on paper, implementation and enforcement remains a significant challenge for most Asian countries. Major implementation gaps include (i) legal loopholes in the list of activities subject to EIA; (ii) inadequate enforcement mechanisms; (iii) weak sanctions that do not deter non-compliance; and (iv) data, funding, technical and human resource limitations. Most Asian countries also report challenges in the implementation of environmental monitoring and management plans (EMMPs), which are part of the typical EIA process.

With support from USAID through its Environmental Cooperation-Asia (ECO-Asia) project, the Asian Environmental Compliance and Enforcement Network (AECEN) and the Asian Development Bank (ADB) jointly conducted a regional survey and workshop entitled "Environmental Impact Assessment in Asia: Good Practices and Capacity Needs" in Manila on 9-10 June 2010. Practitioners from across Asia gathered to take stock of status of EIA practices in the region and to share experience on capacity innovations and best practices. Experts from the U.S. Environmental Protection Agency (EPA) also trained 40 EIA practitioners from AECEN member countries on effective strategies for implementation of EMMPs.

The regional survey and validation workshop provided a foundation for AECEN, ADB, World Bank and other development partners to better understand capacity challenges in implementing and enforcing EIA. Through workshop dialogue, AECEN member agencies expressed an interest in pursuing agency-to-agency collaborative partnerships to learn from each other, leading to the further strengthening of EIA capacity as well as wider replication of best practices within the region.

As a result, in 2011 AECEN will undertake a new regional initiative to strengthen EIA capacity by: (i) facilitating "twinning" partnerships between member agencies to replicate best practices in EIA; and (ii) disseminating relevant information on best practices and tools. AECEN will implement the regional initiative in collaboration with the ADB's technical assistance project to strengthen the use of country safeguards systems.

AECEN Establishes Task Force to Speed Regional Replication

Representatives from compliance assistance centers met in Kolkata to establish Task Force

ECO-Asia Photo

Officials from the Laguna Lake Development Authority and the West Bengal Pollution Control Board will co-chair new task force.

"Sharing of information to promote replication of compliance assistance centers in the Asian region enables small- and medium-sized enterprises to adopt environmentally sound treatment technologies, process technologies and innovations and improve environmental compliance."

—Dr. Rashid Hasan, Director, Government of India, Ministry of Environment & Forests

Challenge

Since its establishment in 2005, the Asian Environmental Compliance and Enforcement Network (AECEN) has grown to an active network of 19 member environmental agencies from 16 countries. AECEN member agencies have a wealth of knowledge and experience in assuring compliance with environmental requirements in their jurisdictions. Through dialogue and technical exchange, agencies are able to share information and ideas on innovative policies and practices. As a result, the AECEN Secretariat has pioneered an innovative platform for facilitating cooperation on compliance and enforcement through member "twinning" partnerships. While these partnerships have led to important advances on the ground, the challenge for AECEN is to accelerate the replication of these best practices across the region.

Initiative

To promote regional replication of best practices, the AECEN Secretariat has developed a range of tools, including toolkits, training, publications, networking meetings and website. For most of these tools, the Secretariat has taken the lead role in development and implementation. As an alternative approach, the Secretariat is reaching out to AECEN members to leverage their ideas and inputs in leading efforts to strengthening AECEN's capabilities in promoting regional replication. One approach for facilitating direct member action is a member-led task force that would provide technical guidance on replication for a particular focus area in accordance with specific terms of reference and a time frame. To pilot the creation and operation of AECEN task forces, the AECEN Secretariat brought together key agencies that have pioneered environmental compliance assistance centers (ECACs) to explore task forces.

Results

AECEN member representatives from India, Philippines, and Thailand established a task force under the auspices of AECEN to identify strategies and tools for regional replication and scale up of ECACs in Asia. During 2011, the ECACs Task Force, co-chaired by officials from India and Philippines, will guide the process to develop a tool kit to establish, operate, manage, and evaluate the ECACs. This pilot will provide an opportunity to test the effectiveness of task forces in accelerating regional replication.

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CASE STUDY

Thai Court Develops New Rules on Environmental Adjudication

Partnership with Australia Key to Drafting New Court Rules and Procedures on the Environment

Supreme Court of Thailand Photo

Senior justices from Thailand visited Land and Environment Court of New South Wales to better understand court policies on adjudicating environmental cases.

"Our partnership with the Land and Environment Court over the years has been invaluable in providing practical insights into effective environmental adjudication. Environmental litigation is complex and now we have new draft rules and procedures that help protect individual rights and our natural resources."

— *Hon. Justice Prateep Chalermpatarakul*
President, Environmental Division, Supreme Court of Thailand

Challenge

Over the last decade, court systems across Asia have been working to strengthen institutional arrangements and to build capacity to cope with the increasing number of environmental cases. As one approach, countries have established specialized courts, specialized court divisions (also known as "green benches"), independent tribunals, ombudsmen or special commissions to resolve environmental disputes. Through the Asian Environmental Compliance and Enforcement Network (AECEN), with funding support from USAID, Thailand's Courts of Justice has established green benches at the Supreme Court and Court of Appeals, though are still faced with implementation challenges due to outdated court procedures and policies and limited judicial capacity.

Initiative

To help develop new policies and procedures to support green benches, the Courts of Justice and Supreme Court of Thailand established a "twinning" partnership with the Land and Environment Court of New South Wales of Australia with coordination assistance from AECEN and funding assistance from USAID. Over the last two years, both courts have engaged in a series of technical exchanges and court visits to support the formulation of new court policies and practices for the environment in Thailand.

Results

Through their partnership with the Land and Environment Court of New South Wales, the Thai Courts of Justice developed a new draft legal framework on environmental adjudication, and new draft rules on expert witnesses and on mediation for environmental adjudication. While the Thai courts studied the Australian experience in detail, they adopted procedures that reflect needs in Thailand. To finalize their new policies and practices, the Supreme Court organized a meeting of judges from a range of countries – Australia, China, India, Indonesia, Japan, New Zealand, Philippines and the United States – to gather feedback and share ideas on Thailand's proposed approach. Thailand will formally adopt the new policies and procedures in 2011.

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SUCCESS STORY

Cambodia and Lao to Jointly Manage Transboundary Resources in Mekong

Lao and Cambodia sign Memorandum of Understanding on cross-border collaboration in fisheries

Somary Phay/WWF-Cambodia

Regular patrols enforce a ban on nylon gillnets that can be dangerous for dolphins

"Effective management of fishery resources at Stung Treng and Champasak requires a joint mechanism. Cambodia reaffirms its enthusiasm in carrying out activities which will lead to the establishment of a transboundary fishery committee."
— Dr. Sam Nuov, Deputy Director, Fisheries Administration, Cambodia

The Stung Treng-Champasak Ramsar wetland site has been identified by the Mekong River Commission (MRC) as a transboundary "hotspot" of potential conflict in the basin, and is also home to the Irrawaddy dolphin, which is considered a flagship species for conservation by the Worldwide Fund for Nature (WWF). Transboundary collaboration between riparians is vital for addressing key issues at the site including illegal and destructive fishing, threats to the critically endangered Irrawady dolphin, environmental pollution and impacts on tourism.

Through consultation facilitation and training, USAID Environmental Cooperation-Asia (ECO-Asia) project, in collaboration with the WWF, assisted Lao and Cambodia in developing an institutional mechanism for joint management of wetland resources at the Stung Treng-Champasak site. The objective of this activity is to establish a model process for collaborative decision-making at the local level that can eventually be applied across a full range of transboundary issues in the Mekong.

In 2010, ECO-Asia and WWF facilitated high-level dialogue between the Fisheries Administration (FiA) of Cambodia and the Department of Livestock and Fisheries (DLF) of Lao to agree on key steps in formalizing transboundary collaboration. As one outcome, the respective ministries of agriculture and forestry, and fisheries from Cambodia and Lao signed a Memorandum of Understanding which provides a framework for the establishment of the Stung Treng-Champasak Transboundary Committee. Both sides also defined the Committee's focus on fishery-related issues and dolphin pool management, and agreed on its broad mandate and functions.

In 2011, ECO-Asia and WWF will continue to work with Cambodian and Lao to elaborate the Committee's institutional framework, build stakeholder capacity, and fully operationalize the Transboundary Committee. The MRC and the World Bank, which are partnering to implement an integrated water resource management project in the Mekong, will participate as stakeholder organizations capable of scaling up committee functions.

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CASE STUDY

Mekong Countries Assess Basin-Wide Impact of Hydropower Dams

USAID and partners develop rapid hydropower sustainability assessment tool for the Mekong

Linda Shi/ECO-Asia

At least 12 hydropower schemes are currently being studied by private sector developers for the mainstream of the lower Mekong River.

"The challenges of today require us to think and work at a basin level to cooperate in promoting sustainable outcomes that recognize the interests of all stakeholders. The RSAT is designed with that objective in mind - and not to be overly complicated." — Mr. Voradeth Phonekeo, Manager MRC Initiative on Sustainable Hydropower

Challenge

The Mekong River is the world's largest inland fishery, accounting for up to 25% of the global freshwater catch. It is also the second most bio-diverse river in the world and provides critical livelihoods for at least 60 million people. The most urgent threat to the people and environment of the Mekong River is the planned development of multiple, large-scale hydropower projects on the lower mainstream.

Existing hydropower project planning tools focus on assessing impacts of a single dam in a river basin. Given the challenge facing the Mekong from potential cascades of dams in a trans-boundary setting, there is a need for a practical tool to assess the basin-wide sustainability impacts of multiple dam projects.

Initiative

In a collaborative effort with the Asian Development Bank (ADB), Mekong River Commission (MRC), and Worldwide Fund for Nature (WWF), USAID Environmental Cooperation-Asia (ECO-Asia) project developed a tool known as the *Rapid Basin-wide Hydropower Sustainability Assessment Tool* (RSAT), which enables practitioners and dialogue partners to rapidly assess basin-wide considerations for hydropower sustainability.

Results

The first of its kind, the RSAT is designed for use at a desktop level and assesses the sustainability of a single hydropower project and its relationship to a sub-basin; or of an existing or proposed cascade of dams or multiple dams within a sub-basin. The tool also enables project developers and dialogue partners to evaluate transboundary impacts, which is critical for the Mekong. In 2010, Mekong stakeholders, including the MRC's Technical Review Group and the National Mekong Committees, endorsed the tool, which was trialed in the Sekong, Sesan, and Sre Pok basins. In 2011, USAID will continue to collaborate with ADB, MRC and WWF to support further field trials and promote application of the RSAT in the Mekong.

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