



A Program of USAID



US-Asia Environmental Partnership

Indonesia Field Program



Work Plan FY 2004
April 2004

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I. Country Strategy For Indonesia FY 2004

The US-Asia Environmental Program (US-AEP) is a regional program of the USAID Asia Near East Bureau with the objective of cleaner cities and industry in Asia. During fiscal year 2004 US-AEP will develop a new program strategy for FY2005-2008. The USAID Mission in Indonesia is near completing a new five-year strategy for FY2004-2008 to strengthen a moderate, stable, and productive Indonesia. This work plan anticipates both of the new strategies and provides input for the US-AEP strategy development process.

In Indonesia, the DOS/USAID MPP positions US-AEP within the goal of "economic security and prosperity," and strategy 3: "Help Indonesia sustainably manage its natural resources and environment as a foundation for Indonesia's economic growth." US-AEP activities in environmental management and governance contribute to the joint Department of State/USAID goal of "improve[d] health, education, environment, and other conditions for the global population."

Background/Operating Environment

Indonesia is still recovering from the events of 1997/98: the disintegration of Suharto's authoritarian New Order, the Asian currency crisis, public and private debt, and decentralization. Forces that are competing to fill the power vacuum left by the fall of the New Order include political parties, regional warlords, the old power elite, the military, and formerly disenfranchised anarchic groups.

The collapse of the Suharto Administration, however, also began a new era of political openness and debate and has opened the way for reform of the country's political institutions. Despite the problems of a dysfunctional legal system, Indonesia has managed within four years to reconstruct its legal and political system on liberal democratic principles. Successor governments have radically revised the authoritarian Constitution to include, almost intact, the Universal Declaration of Human Rights. Moreover, a Constitutional Court is now functioning with full powers of judicial review, soon to be supported by a Judicial Commission to ensure merit-based and professional management of judicial personnel. A new Anti-Corruption Commission is also to begin work soon.

The Megawati government has made some progress in the last year in stabilizing the exchange rate at Rp 8,300; reducing the inflation rate to 6% and the deficit to 1.8% of GDP; a GDP growth of 3.5%; and building up foreign reserves to \$33 billion. The stock market is up from the beginning of the year, hitting three-year highs. Despite a backlog tens of billions of dollars of book value, the Indonesian Bank Restructuring Agency completed its asset sales programs ahead of its scheduled closure in early 2004. Indonesia plans to pay off its \$9 billion debt to the IMF and reduce its role to token monitoring.

Still, recovery is far from complete in the case of legal reform, foreign and domestic investor confidence, unemployment and underemployment, regional separatism,

reducing corruption, and failure of law enforcement. Largely because of a failure of law enforcement and lack of certainty as to central-regional roles, the Indonesian economy still grows asymmetrically without commensurate achievements in basic environmental management of air and water resources that support public health and human development while reducing poverty. Disregard for the law accelerates illegal logging and pollution of the water and air, resulting in an ever-growing social burden. Today in Indonesia, 80% of the population does not have access to clean piped water, and unsafe water is one of the major causes of disease. Few Indonesian cities have even a rudimentary sewerage system, and other sources of pollution include mining and unregulated effluents. Severe air pollution in cities impacts the health of over 70% of the urban population, causing premature death, reduced child brain development, cancer, and upper respiratory disease. In 2002, air quality in Jakarta fell in the "healthy" range only 22 days, and in 2003 only 7 days.

Yet there are encouraging signs of progress. The freeing of the media since 1998 has accompanied a general growth of interest in public affairs. There are early, tentative efforts of a small constituency challenging unquestioned deference to authority and demanding accountability and the provision of good services from the government. The Supreme Court has cleared the way for class action lawsuits, enabling those harmed by illegal activities resulting in environmental disaster to seek remedies as a class.

Energy subsidies have been reduced from 25% to 5% of annual government expenditure, and a new regulatory body for downstream oil and gas has been established. The government is now transforming the energy sector from a state monopoly toward a more open and competitive market, aiming at improving sector efficiency, attracting private investment, and contributing to improvement in air quality. As recent experience in the Philippines shows, introducing competition can greatly improve the government's effectiveness in enforcing regulations while providing access to cleaner fuels, bringing about better public health outcomes. Even before the retail fuel market opens to competition, leaded gasoline is being phased out in stages and the first steps have already saved the country over \$266 million per year in health care.

These long-term trends have programming opportunities in the following respects:

- Central government administrators have a reduced role in local affairs
- Greater local decision-making and authority means management of public services is closer to the consumers
- Civil society and professional groups are free to associate without harassment and are beginning to establish new roles in the decision-making process
- Removal of central government subsidies forces service to local needs in order to get local revenue
- State economic considerations and removal of subsidies drive the breakup of inefficient state monopolies and open markets to competition

General Description

Overall goal

In support of the US-AEP objective of “cleaner air and water in Asian cities” and USAID Indonesia Mission’s objectives of “higher quality basic human services utilized” and “economic growth strengthened and employment created,” US-AEP/Indonesia will seek to improve environmental health and energy sector efficiency. US-AEP efforts will create innovative, sustainable partnerships that leverage expertise and resources from U.S., Indonesian, and Asian public and private sector entities.

Strategic Approach

In support of the US-AEP strategic objective and USAID/Indonesia’s strategic objectives for basic human services and economic growth, US-AEP/Indonesia will work in partnership with U.S. and Indonesian government institutions, civil society, businesses and academia. In order to achieve impacts with flexible but limited resources and staff, US-AEP will harness creative energies and leverage financial resources from new and existing partners, acting as a catalyst to effect environmental change and improvements. US-AEP/Indonesia will capitalize on its in-country and regional presence in Asia to support the USAID Mission strategy. On the Indonesian side, US-AEP will identify and engage Indonesian partners to facilitate the adoption of improved environmental policies, management practices, and innovative service delivery systems. On the U.S. side, the program will leverage the environmental management experience of USEPA, ASE, US-AEP sister programs in Asia, U.S. state and city agencies, and other partners to provide focused technical assistance and information sharing and to build understanding of potential technology interventions to address environment and energy issues. Flexibility and the ability to respond rapidly to changing circumstances are hallmarks of the US-AEP program and will continue to be a part of US-AEP/Indonesia’s strategic approach, particularly as the outcome of parliamentary and presidential elections allows for Indonesian partners to advance in new found opportunities.

Our experience in implementing successful programs in Asia, availability of strategic tools to promote partnerships between US and Asian entities, and rapid access to environmental and key information resources and US institutions have been our strength. US-AEP planning continues to take advantage of current conditions enhancing its distinctive tools and partnerships, such as the long-term trends mentioned above. There are patches where more independent local governments are responsive to their constituents, and US-AEP will work to create the enabling environment for local institutions to improve service delivery, particularly in water and sanitation. US-AEP will continue to work with community groups, professional associations, and other partners for the bottom-up component of policy change backed by solid data, complementing and strengthening USAID mission-assisted activities at the local government and national levels.

Environment and Health

In the context of the new Mission strategy for FY2004-2008, US-AEP has established new linkages in environmental health focused on the environmental services and reduced pollution that are required to support human health, such as clean water and

sanitation, clean air, and management of toxics. The Mission takes an innovative approach in linking efforts to increase access to clean water and sanitation with efforts to reduce waterborne and infectious diseases that pose serious challenges in public health. US-AEP activities will underline the importance of the environment – health link through targeted activities in the areas of water efficiency and access, air quality management, reduction of mercury, and environmental education.

US-AEP will support more efficient, professional provision of municipal water/wastewater and increased access to water, especially by the urban poor. This objective supports the mission's broad objectives in environment and health, the President's Initiative for Water for the Poor, and the goal of reducing poverty. Five years from now, the program will contribute to increased access to piped clean water, especially by the urban poor, and partnerships between key Indonesian institutions and their US counterparts will help to increase access to water, wastewater, and solid waste services.

Also in contribution to the Mission's environment and health objective, US-AEP/Indonesia will implement activities supporting completion of leaded gasoline phase-out throughout Indonesia to improve child health by reducing lead exposure. In five years, the program will have contributed to complete nationwide leaded gasoline phase-out and to introduction of improved emission standards, with reduced costs of vehicle maintenance and better air quality. There will be significantly broader recognition of the dangers of lead poisoning and monitored blood lead level reduction over time, along with the first national set of public information and traced lead flows in the country. A national clean emissions forum will function as the focal point for coordinating broad stakeholder engagement in decision-making and advocacy for clean fuels, clean air, and better transportation. Professional energy and air quality organizations will be linked with US and Asian counterparts helping to harmonize standards, monitor and improve fuel quality, and improve air quality management practices and enforcement of standards.

US-AEP will further contribute to the environment-health objective through development of new activities to reduce mercury in the environment and introduce new approaches to environmental education. In developing new areas of engagement US-AEP will seek to build upon Mission efforts and upon successful US-AEP activities in environmental education.

Energy Sector Reform

During FY2004 the Mission will plan a new phase in the energy program to advance ongoing policy and regulatory efforts into the implementation stage. The USAID Mission strategy recognizes "that the availability of energy at affordable cost is vital to achieving higher levels of economic growth. The Indonesian government is now transforming the energy sector from a state monopoly toward a more open and competitive market, aiming at sector efficiency and attracting private investment and contributing to air quality." In this regard, US-AEP will actively collaborate with the Mission to develop supporting activities bringing about cleaner fuels, clean air, and more efficient energy use in transport and industry. US-AEP will also collaborate closely with the Mission to strengthen the new regulatory body, increase acceptance of fuel

subsidy removal, and establish clear regulatory practices that create a better investment climate.

The Indonesia country strategy integrates with selected US-AEP regional initiatives and institutions, such as the WB/ADB Clean Air Initiative for Asian Cities (CAI-Asia), USEPA Clean Air Training Network (CAT-Net), Air and Waste Management Association (A&WMA), and the Southeast Asia Water Utilities Network (SEAWUN). Each of these organizations has active constituents and leadership in Indonesia.

Relationship to USAID and Other Donor Programs

This FY04 work plan reflects substantial efforts to integrate the US-AEP program with the new Mission strategy for FY2004-2008, while anticipating the new US-AEP program strategy for FY2005-2008. The US-AEP/Indonesia program is positioned under two Mission SOs, namely *Higher Quality Basic Human Services Utilized* and *Economic Growth Strengthened and Employment Created*. Most activities focusing on access to clean water/sanitation, air quality management and toxics relate to *Higher Quality Basic Human Services Utilized*, while energy reform and clean fuels activities contribute to the *Economic Growth SO*.

The new USAID Mission five-year strategy emphasizes improving quality of decentralized basic education; delivery of higher quality basic services such as human health, environmental health (access to clean water and air) and food/nutrition; accelerated economic growth; and improved democratic and decentralized governance. The objective of "higher quality basic human services utilized" focuses on the interdependence of health, nutrition and the environment. US-AEP activities in the areas of water access, air quality, toxics reduction and environmental education will support the Intermediate Result "Basic Human Services Delivered Effectively at the Local Level," which provides assistance to public and private service delivery institutions for improved management and technical capabilities to deliver environmental, health, and nutrition services. US-AEP activities in fuel quality, standards and regulation, and SME efficiency will also support the objective of "economic growth strengthened and employment created," and intermediate result "improvements in critical public services increase investment and trade efficiency," which includes assistance in transformation of the energy sector to an open and competitive market, improving sector efficiency, attracting investment, and contributing to improved air quality.

Over the years US-AEP has collaborated with the Mission's Energy program in its efforts to reduce energy subsidies, improve efficiency, and establish clear regulatory policy and standards. US-AEP has actively supported consumer acceptance of realistic fuel prices that are required for an unsubsidized, competitive downstream sector that could provide unleaded gasoline and cleaner fuels. In 2001, US-AEP brokered the MOU between the Ministry of Environment and USEPA as part of the program to support phase-out of leaded gasoline. Under this MOU, US-AEP coordinated activities by US EPA and CDC together with a network of involved government agencies both central and local, NGOs, universities and private sector participants. Linked activities following the MOU are focused on completing lead phase-out and improving air quality

management. US-AEP collaborated with EAPEI, leveraging funds and coordinating an integrated set of separately funded activities with EPA. US-AEP also collaborated closely with the World Bank and PERTAMINA's efforts for lead phase-out, and with the USAID Mission's feasibility study with LEMIGAS. Last year AEP partnered with the ADB Clean Fuels Partnership as well as with US-AEP/India concerning development of alternative fuels such as CNG and LPG for transport. Given the new Mission strategy's emphasis on environmental services necessary to support public health, air quality activities will now be supported under the Mission's environmental health cluster, while the fuel quality, pricing, and governance dimensions will be pursued in collaboration with the Mission's energy sector reform program.

The US-AEP country manager has frequently assisted the USAID mission as liaison with the ASEAN Secretariat for environmental issues, providing updates supporting related cables. US-AEP is also a resource for input to the Petroleum Report and related cables of the ECON section. Last year US-AEP collaborated with the USAID Mission Democracy SO (Civil Society Support and Strengthening Program) to provide capacity building assistance for NGO and government leaders implementing programs in clean air and leaded gasoline phase-out.

In addition, the US-AEP program contributes to the objectives of the regional ADB and WB-supported Clean Air Initiative for Asian Cities and to ADB technical assistance in FY04 for air quality management. Activities are also coordinated with assistance in air quality management from the Embassies of Switzerland and Japan. Water sector activities will be coordinated as appropriate with existing US-AEP donor partners such as the ADB and the Dutch, German, Canadian, and Australian embassies.

Strategy Development Process

The USAID mission has reviewed the US-AEP work plan. The *Basic Human Services* and the *Economic Growth* SO teams have been involved, as well as the Program Office and the USAID Mission Director. Mission inputs have been integrated into the strategy to ensure maximum coordination during this transition year. The resulting program focus on environmental services that impact human health, and on energy reform, ensures clear support to anticipated Mission bilateral objectives while at the same time supporting the anticipated US-AEP strategic objective.

This year's in-country strategy was also developed out of the lessons learned from the results of previous years' activities and discussions with the USAID Mission, the Government of Indonesia, multilateral and bilateral donors, and community and professional associations regarding their strategies and priorities. For instance, after strategy discussions with the mission, support to activities in solid waste were de-emphasized in order to ensure maximum synergy with mission-supported activities.

This strategy has grown out of frequent updating and information sharing with the World Bank, ADB, UNDP, JICA, GTZ, and the embassies of Canada, the Netherlands, and Australia. It reflects collaboration with the Ministry of Environment, the National Development Planning Agency, Ministry of Energy and Mineral Resources, Ministry of

Transport, BPLHD Jakarta (province level), and numerous other city and regency governments. In addition to being integrated with the mission and Indonesian government agencies, the program is coordinated with the work of professional organizations and NGOs such as Joint Committee for Phase-Out of Leaded Gasoline (KPBB), Partnership for Clean Emissions (MEB), Swisscontact, Pelangi, Energy Analysis and Policy Office (EAPO), Institute of Technology Bandung (ITB), University of Indonesia, CAI-Asia, Friends of the Environment Fund (DML), The Asia Foundation (TAF), PERPAMSI, and IATPI. Partnership is at the core of the US-AEP program, and we consider all of these institutions partners in development.

A Table of Projects:

Project	Project Purpose
Environmental Health: Managing Resources and Reducing Pollutants for Better Human Health	Improve environmental health through: a) better clean water supply; b) introducing lead-free gasoline to improve child health by reducing lead exposure; c) encouraging more environmentally friendly small-scale mining practices to reduce health impacts from mercury exposure; d) environmental education.
Improved Energy Efficiency	a) improve energy governance of the downstream sector and b) improve competitiveness and lower energy costs to mitigate price shocks as subsidies are removed.
Targets of Opportunity	

II. Description of Proposed Projects

- 1. Environmental Health: Managing Resources and Reducing Pollutants for Better Human Health**
- 2. Improved Energy Efficiency**

Project Title: Environmental Health: Managing resources and reducing pollutants for better human health

Primary Program Area: IR1: Improved Environmental Governance. Sub-IR: Increased engagement of civil society in environmental decision-making. IR2: Improved Urban Environmental Management, Technologies, and Resource Efficiency. Sub-IRs: Improved management practices and technology adopted to mitigate air pollution and reduce hazardous and toxic waste.

Implementation Partners:

In-country Partners: Local Governments; Joint Committee for Leaded Gasoline Phase-Out (KPBB); Faculty of Public Health, University of Indonesia; Ministry of Environment

International Partners: The Asia Foundation (TAF); USEPA; TSSC; IIE; PADCO; Dept. of Interior Office of Surface Mining

Project Description:

General Description: This project addresses environmental health by first, assisting with improved clean water supply to the poor, and second, reducing harmful pollutants in the environment. The ultimate objective is to improve public health through water and sanitation services and by reducing health impacts from harmful pollutants in the air and water. While the water activities focus on improving local capacity, the pollution reduction activities take a science-based approach, providing reliable evidence to support decision-makers and provide public information on how to prevent and reduce targeted pollutant levels and exposures. Improved information and research will support advocacy in civil society and government toward better environmental practices, compliance and enforcement, improved regulation, and good governance.

US-AEP will continue to develop partnerships for better environmental health between US, Indonesian and regional organizations, including governments, civil society, universities, and the private sector.

This project supports the new USAID mission strategic objective for higher quality basic human services. USAID is taking an innovative approach by focusing on the interdependence of health and the environment, and their effect on health outcomes. This project strengthens the environment-health link by improving local capacity to provide clean water needed for proper sanitation and by reducing levels and exposures to targeted pollutants with measurable health benefits.

a. Increasing Efficiency and Access to Clean Water

This project area will provide a smooth transition, winding down ongoing US-AEP activities in the water sector during this transitional period. New activities will focus on local government capacity for fulfilling its proper role *vis-a-vis* water enterprises. Specific activities will be identified before the end of the fiscal year.

a.1. In an ongoing project, the training arm of PERPAMSI, *Yayasan Pendidikan Tirta Dharma (YPTD)*, is establishing a quality control unit to ensure that regional training meets a national standard. Decentralization of training functions has been

beneficial to the regional water enterprises, but it has raised a new challenge of ensuring the maintenance of training quality. Over the period November 2003 to September 2004, two senior training experts are developing and pilot-testing a training quality control system at YPTD training centers in Jakarta, Magelang, Medan, and Makassar. They are preparing modules for training offerings in PSP and consumer orientation. At the end of the activity, YPTD will continue to operate a self-sustaining system of quality assurance, feedback, and annual upgrading.

b. Widening Phase-out of Leaded Gasoline for Improved Air Quality and Public Health

Indonesia's economic development over the past 15 years has been accompanied by a rising social burden of health consequences resulting from heavy pollution, with the poor suffering disproportionately. The air quality in Indonesia's major cities ranks among the world's poorest. In the year 2002, there were only 22 days that Jakarta's air quality was in the "healthy" range, and in 2003 there were only 7 days. Air pollutants such as lead, particulates, NO_x, CO, and VOCs regularly exceed health-based standards by double or larger margins, mostly caused by vehicle emissions. Sustained exposure poses serious health risks such as reduced child brain development and IQ levels, upper respiratory illnesses (affecting over 70% of urban populations, particularly children), premature death, and cancer.

Switching to unleaded gasoline is crucial to reducing human exposure to lead and other vehicle emissions. When lead-free gasoline is supplied on whole islands, not only will lead exposures drop significantly, but vehicles can be fitted with affordable catalytic converters that reduce emissions of *all* pollutants by more than 90%. Most Asian countries have already completed lead phase-out, and the results have been well documented, demonstrating significantly reduced air pollution in megacities and clear improvements in public health.

This project area continues US-AEP's effort to focus attention on leaded gasoline phase-out and support the ongoing GOI process of phasing out lead nationwide. Following the successful phase-out in Jakarta, Cirebon, Bali and Batam (40% of the national supply), US-AEP will support completion of lead phase-out through science-based studies, civil society training, public information and outreach, international professional exchanges, and development of better clean air regulation. The project will be done in partnership and consultation with a broad-based network of key stakeholders in central and city government agencies, civil society, and the private sector.

b.1. The Joint Committee for Phase-Out of Leaded Gasoline (KPBB) and TAF will monitor lead content in gasoline and publish the results in stakeholder consultation meetings, in support of the GOI lead phase-out process. A policy paper and training materials will support training activities in five targeted cities: Surabaya, Yogyakarta, Bandung, Makassar, and Palembang. Public information, press conferences, and public events will be developed and materials distributed to support the public outreach efforts, culminating in a Mother's Forum Against Lead in about September 2004. A survey of public perceptions about phasing out leaded gasoline will measure the effectiveness of the public outreach efforts.

b.2. The USEPA will work with KPBB to strengthen the Lead Information Center as a national information dissemination center for the public to obtain general information about lead poisoning and prevention. The Center will gather data, generate knowledge about lead flows, exposures, and impacts, and make the information known to the public to reduce exposures and build support for unleaded gasoline and realistic prices. Technical support will also assist Ministry of Environment to implement Decree No. 141, 2003 on adopting unleaded gasoline emission standards for new vehicles by 2005. The research and public information will be targeted to cities that have higher lead concentrations and risks of exposure on a large scale, especially among children. The Lead Information Center will use participatory action research methods, including a module on mapping of lead victims as a tool to empower local communities and assess needs.

b.3. The University of Indonesia, in partnership with US-AEP/TSSC, Osaka University, JICA, the Ministry of Environment laboratory, and City of Jakarta, will test respiratory health and blood lead levels in association with air pollution exposures of elementary school children in Jakarta. The results will track reductions in blood lead compared to reductions in ambient lead in Jakarta, supporting advocacy for effective measures against vehicle emissions and predicting future risk and the impacts of potential policy measures.

b.4. The University of California and Indonesian partners will test exposure levels of targeted groups in Jakarta to assess and report health risks attributable to severe levels of PM and CO. Groups tested may include those in buses, schools, police posts, and roadside vendors. The measurements will enable a prediction of the health benefits from emission reduction policies and will also establish a baseline to track improvements over time, demonstrating the efficacy of future policies. The potential involvement of public figures, the media, students, police, and other target groups in taking samples will provide excellent opportunities garner broader support for pollution reduction measures. US-AEP will explore this activity's potential qualification as a CSG project.

b.5. Pelangi and The Asia Foundation will conduct the second phase of a regulatory consultation and review process for improved air quality management. The project's first phase identified the underlying problems of today's air quality management regulation, compliance and enforcement in Indonesia and published an analytical paper. The second phase will work directly with local governments, parliament committees, and political parties. The resulting analysis will be written as a white paper, or "academic paper," which is a prerequisite to drafting legislation.

b.6. The Partnership for Clean Emissions will publicize the results of the lead phase-out process and health benefits more broadly. The Partnership will continue providing valued stakeholder input to key decision-making processes at DKI Jakarta and at the central government level to reduce vehicle emissions. This activity is coordinated with related activities of Swisscontact and the ADB.

b.7. The EPA will assist the City of Yogyakarta and Gadjah Mada University to build its emissions inventory. The EPA will design tests and demonstrate the use of portable emission analyzers (PEMS). The EPA will also train Indonesian counterparts to conduct tests on their own and to analyze the data. Real time emissions data will enable a better understanding of where the biggest improvements can be made in the fleet, given existing vehicle load, engine performance, fuel quality, road conditions, and driving behavior. The new data will enable Yogyakarta and other cities to develop more accurate emission factors, a key element in the transport emissions inventory. The data will also form a baseline to track progress once a vehicle inspection and maintenance program, now in the planning stages, is introduced.

b.8. As part of a broader series of technical assistance and training partnerships, US-AEP will identify and fund key individuals for regional and US-based exchanges, technical meetings, and professional conferences focusing on urban air quality and transportation. Participants will present findings to international audiences of peers and obtain feedback, learn from experiences of Asian countries and the US, develop new partnership and funding opportunities, and expand professional networks. US-AEP/Indonesia will support participation in the following partner events: Fuel Quality Strategic Planning, October/November 2003, Sydney (CAI-Asia); Better Air Quality 2003, December 2003, Manila (CAI-Asia); Air and Waste Management Association annual conference and exhibition, June 2004 (A&WMA); CAT-Net training (USEPA).

c. Reducing Mercury in the Environment

Mercury used in small-scale gold mining often causes serious health impacts to artisanal gold miners and contaminates waterways, posing serious health risks to whole downstream populations who eat contaminated fish and plants. USAID/NRM has introduced cleaner and more efficient practices in N. Sulawesi in collaboration with the BAPEDALDA, resulting in better gold recovery without mercury exposure. US-AEP will build on this effort to encourage the adoption of more environmentally friendly mining practices that improve worker health by reducing mercury exposure. Activities will be developed to build partnerships with civil society and local governments to provide public information on safer mining practices and the dangers of mercury, assisting communities to prevent harmful exposures.

d. Environmental Education

In collaboration with the USAID strategic objective in education, US-AEP will explore opportunities to provide teacher and student education and supplemental curriculum materials in air pollution control and environmental health. The activities would focus at the elementary school level, building on activities that were implemented in Jakarta in 2001-2002.

Project Purpose: Improve environmental health through: a) better clean water supply; b) introducing lead-free gasoline to improve child health by reducing lead exposure; c) encouraging more environmentally friendly small-scale mining practices to reduce health impacts from mercury exposure; d) environmental education.

Expected Results:

- a. Increasing Efficiency and Access to Clean Water
- *Yayasan Pendidikan Tirta Dharma* will have a functional quality control system being used on a routine basis by September 2004.
 - Support to goals articulated in mission's strategic plan.
- b. Widening Phase-Out of Leaded Gasoline for Better Air Quality and Public Health
- Independent verification of lead phase-out and lead replacement will be conducted and fuel lead levels reported to the public in five major cities by March 2004.
 - A Lead Information Center linked with USEPA will generate and disseminate public information and coordinate research, beginning operation in January 2004.
 - Community recognition of the dangers of lead and pressures for unleaded gasoline will grow in five major cities, as measured by a perception survey before and after public outreach activities.
 - The association of air pollution and respiratory health in elementary school children in Jakarta will be determined.
 - The North Coast of Java will be supplied nearly 100% with unleaded gasoline by September 2004.
 - Health impacts from exposure to severe levels of PM and CO will be assessed and published, predicting the benefits of emission reduction policies and setting a benchmark.
 - The district government portion of the policy paper on regulation, compliance and enforcement of air quality will be completed, forming the basis for legal drafting of improved regulations.
 - Media coverage of lead phase-out and health benefits will increase in 2004.
 - The Mayor of Yogyakarta and UGM will have an improved emissions inventory to increase pressure for unleaded gasoline and to assist them in prioritizing measures to reduce emissions. Local personnel will be trained to do follow-up tests in the future with PEMS.
 - About twenty Indonesian professionals will have participated in regional events supporting their in-country work on lead phase-out, air quality, and health issues.
- c. Support to goals articulated in mission's strategic plan.
- d. Support to goals articulated in mission's strategic plan.

Implementation Activities:

US-AEP will employ the available funding mechanisms to achieve the program objectives and results. This will include small grants, travel, etc. as appropriate. Allocated budget amounts are shown below, while activities not yet programmed may draw on opportunistic funding.

a. Increasing Efficiency and Access to Clean Water

Detail of Mechanisms:

- a.1. **TSSC Grant:** Yayasan Pendidikan Tirta Dharma for Quality Control unit providing demand-driven training. Expected completion September 2004.
- a.2. **IIE Exchange:** CATSPAW. Exchange completed.
- a.3. FY2004 SOWs in Water and Wastewater Currently Under Review:
- Wastewater Communications Forum Five-Year Plan (detailed SOW).
 - Study for Establishment of a Revolving Fund (SERF) (detailed SOW).
 - SMALLGAP-2. Seven-week consultancy to enhance PDAM relations with local governments/parliaments. PADCO to assist PERPAMSI.
 - UPDATE-3. Mobilization of community organizations for assistance to the poor; financial analysis; AWWA volunteer in piping to slum areas. Implemented by FORKAMI. TAF grant and IIE exchange.
 - Certification of Water Treatment Installations Project (TOMCAT III). First steps in certifying water treatment installations to a level below ISO 9000 implemented by PERPAMSI. Grant through Mission and IIE exchange.
 - MAPES participation: IIE exchange.
 - Professional Upgrading Visits. Visits by water enterprise personnel to regions. IIE exchange.
 - Good Neighbor Water Enterprise Efficiency Project. Assistance to successful water enterprises achieving high cost recovery for spreading their knowledge to nearby water enterprises. TSSC grant and IIE Exchange.
 - Cooperation Among Sanitation Water Enterprises. Establishment of cooperation among PDAMs in wastewater. IIE exchange.
 - Water Environment Federation Assistance to Wastewater Treatment Operators Association (IATPI) for CD ROM production. Two volunteers. IIE Exchange and TSSC grant.

b. Widening Phase-out of Leaded Gasoline for Improved Air Quality and Public Health

Detail of Mechanisms:

- b.1. **TAF Grant:** KPBB fuel quality monitoring and civil society strengthening to build public awareness of the dangers of lead and promote and build demand for use of unleaded gasoline. November 2003-June 2004.
- b.2. **USEPA/DOS EAPEI Grant:** EPA grant for *Reducing Lead in the Environment*, including establishment of Lead Information Center (DOS/EAPEI funds, FY03); USEPA program management and institutional capacity building;.
- b.3. **TSSC Grant:** University of Indonesia risk evaluation of toxic substances in automobile exhaust in the Jakarta urban area, part of the study measuring blood lead levels and lung capacity.

- b.4. **TSSC Grant:** Measurement of exposure to PM and CO in Jakarta; in-country preparations and organization, documentation, reporting; and **TBD:** University of California for design of tests, use of equipment, training and analysis.
- b.5. **TAF Grant:** Second phase Pelangi decentralized policy consultation process for improved air quality regulation.
- b.6. **TSSC STTA:** Expertise for Partnership for Clean Air; **TAF Grant:** for advocacy capacity building and public outreach program **and IIE Exchange:** for MEB participation in CSSP three trainings outside Jakarta.
- b.7. **TAF grant:** Data analysis, reporting and distribution of PEMS measurements; **and EPA:** support for Gene Tierney to visit Yogyakarta, design the tests, and demonstrate and train the use of PEMS.
- b.8. **IIE Exchange:** Two participants in the Fuels Training Course in Sydney; Ten participants in the BAQ 2003 in Manila; Three participants in the A&WMA conference in the US.
- c. **Mercury implementation activities to be determined.**
- d. **Environmental education activities to be determined.**

Project Title: Improved Energy Efficiency

Primary Program Area: IR1: Improved environmental governance; IR2: Improved urban environmental management, technologies, and resource efficiency; IR3: Improved industrial environmental management, technologies and resource efficiency.

Implementation Partners:

In-country Partners: Ministry of Energy and Mineral Resources, Pelangi

International Partners: TAF, TSSC, IIE, ASE

Project Description

General Description: Over the past few years, the GOI has made substantial progress in oil and gas sector reform as a key to achieving stable economic development. The new Oil and Gas Law sets in motion a process of breaking PERTAMINA's historic monopoly and opening the downstream sector to competition in 2005. The prospective opportunities for competitors are attracting new investment to the retail fuel sector. PERTAMINA has been privatized, and a new regulatory body has been established in the Ministry of Energy and Mineral Resources to set standards and enforce them as the retail fuel market is opened.

The driving forces of oil and gas reform provide significant programming opportunities for improved governance and provision of consistent regulation that is needed to open the competitive market and attract significant foreign investment. The creation of a competitive environment in the retail fuel sector will greatly enhance the effectiveness of the government in enforcing higher fuel quality standards, as retailers become more customer-focused and consumers begin to choose among suppliers. These reforms also provide a platform for effective civil society input to support improved energy governance and supply of unleaded gasoline. US-AEP will develop activities to support USAID energy programming for improved governance in this context.

The Indonesia DOS/USAID MPP calls on US-AEP, USAID Mission and ECON to "support efforts to restructure Indonesia's energy sector, so that it becomes more transparent and competitive, developing alternative energy sources, eliminating lead in fuels, and instituting mandatory emissions testing."

Mitigating energy price shocks and improving competitiveness through energy efficiency

Government programs to remove energy subsidies have been delayed by strong opposition from industry groups. Energy price shocks have increased operating costs significantly, and while some industries may pass these costs on to the consumer, this is not an option for many sectors. This energy efficiency project will assist SME hotels facing energy cost increases to stay competitive. Efforts mitigate the price shocks in electricity will reduce the opposition to government subsidy reduction. The ongoing project will help SME hotels preserve existing jobs of over 25,000 employees in Jakarta.

The Alliance to Save Energy and Pelangi are providing targeted assistance to raise awareness of energy- and money-saving improvements that can be made in Indonesia's hotel sector and begin to institutionalize energy efficiency in a target segment of the sector. In FY2004, the program focuses on Jakarta's SME hotels, though the approach is applicable to public buildings such as hospitals and schools as well.

Since the mid-nineties, several programs focusing on the promotion of energy efficiency in Indonesia's hotel sector have been initiated. The vast majority of these programs, however, have been executed in four-star and five-star hotels. The Alliance and Pelangi are working with the Indonesian Hotel and Restaurant Association and other stakeholders to develop a replicable program model that can be used to effectively transfer practical knowledge of energy efficiency. The project encourages the development of a practical institutional network to assist hotels in identifying opportunities for energy efficiency and implementing measures successfully.

The ongoing energy efficiency program is in the third stage of activity, building on work during 2002-2003. Previous phases have identified and defined key priority areas for reform, conducted stakeholder meetings, completed a study with the Institute of Technology in Bandung Center for Research on Energy and Materials, built effective partnerships with stakeholders, and implemented parts of the detailed project workplan.

The detailed workplan is divided into four phases: 1) *Research and development* – roundtable discussion with relevant stakeholders, kickoff workshop, hotel energy assessment survey, in-depth interviews with hotel management, and selection of 3 pilot hotels; 2) *Pilot project implementation* – energy audits of selected hotels, development of recommendations and action plan, development of non-star hotel guidebook, guidebook training for selected hotels management and staff; 3) *Outreach and dissemination* – dissemination of results and guidebook to all Jakarta Melati hotels, ee training for Melati hotel management and staff, development and dissemination of campaign kit, development of non-star hotel network; and 4) *Evaluation and next steps* – end of project evaluation, results-oriented seminar, development of non-star hotel website to be hosted by in-country partner.

Project Purpose: The purpose of this project is to a) improve energy governance of the downstream sector and b) improve competitiveness and lower energy costs to mitigate price shocks as subsidies are removed, and preserve jobs of 25,000 employees.

Expected Results:

- a. Support to goals articulated in mission's strategic plan.
- b. Energy savings improve competitiveness of SME hotels.
 - Energy efficiency guidebook for SME hotels developed and disseminated throughout hotel sector

- Training for hotel management and energy managers throughout sector
- Energy efficiency case studies developed for non-star hotel sector
- Energy efficiency website will be a source for non-star hotels to reference information on energy and money-saving information, complete with case studies and financing information
- Network of non-star hotel energy managers created
- Replicable program model developed and new target cities identified

Implementation activities:

a) TBD

b) **ASE Subcontract:** Grant to Pelangi to implement the project locally.