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Analysis of Vehicle Inspection and Maintenance Systems

Activity: Analysis of Inspection and Maintenance Programs
Program Area: Urban Energy
Implementer: PA Government Services Inc.
Geographic Focus: Global
Duration: June 2003 – September 2004



A Vehicle and Inspection Maintenance camp being inaugurated in Mumbai, India.

Project Background

Vehicle emissions are one of the largest and fastest growing sources of air pollution in cities in the developing world. Various cities are undertaking major efforts to impose emission standards on new vehicles, retire old vehicles, and force conversion to cleaner fuels. However, inspection and maintenance (I/M) of existing vehicles is often the “weak link” in cities’ efforts to reduce air pollution from vehicles. These programs are often plagued by low public awareness; inadequate data and poor policy choices in designing standards; human error or petty corruption in the operation of testing

equipment; and a paper-based recordkeeping system that inhibits data analysis and strong enforcement.

None of these problems is amenable to easy solutions. However, there is a body of experience in innovations in recent years that could be synthesized to create a valuable contribution to knowledge in this area – a set of lessons learned and best practices drawing from experience in both developing and developed countries. USAID aims to capture this body of experience in an analytical report that can offer insights and recommendations on how to design and implement an effective I&M system.

Development Objective

The objectives of this activity are to produce an analysis of I&M systems that examines design, enforcement, compliance, and air quality impacts:

Design

Key design features, such as centralized vs. decentralized testing, separation of testing and repair functions, and computer-based vs. paper-based systems will be analyzed along with fundamental



variables such as budgetary resources, government capacity, and political will.

Enforcement

The report will review various potential elements of an enforcement strategy including spot checking, remote sensing, and linkage to vehicle registration.

Compliance

The analysis will examine various options for promoting compliance including outreach, education, and advertising.

Air quality

Potential air quality benefits from investing in I&M will be synthesized from existing studies.

Project Activities

A literature review and interviews with practitioners and experts began in the fall of 2003 and are now complete. A first draft will be circulated for peer review; a workshop will be held in Washington DC in the fall of 2004; and the final report disseminated via hardcopy and the USAID website.

Project Results

The report is under preparation.

Development Impact

The dissemination of the report will assist decision-makers to better design and implement I/M systems, helping reduce vehicular emissions and improve the air quality in cities around the world.

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