AUDIT OF AIR POLLUTION PREVENTION AND CLIMATE CHANGE

A. AIR QUALITY MANAGEMENT IN THE PHILIPPINES

1. Introduction

The deteriorating quality of air in Metro Manila and the surrounding areas is a major issue that emerged in the 1990s as air pollution is affecting the health and welfare of the residents. The concentration of several pollutants in ambient air has reached alarming levels and as a result the Government has accorded high priority to reducing air pollution through appropriate mitigation actions. The major sources of air pollution are both mobile (primarily motor vehicles) and stationary (mainly power plants and boilers in various industrial processes). With growth of the economy anticipated to continue in the foreseeable future, emissions of pollutants from these sources are expected to increase considerably if actions are not taken to mitigate them.

2. Economic Development Goals and Challenges

The major challenges faced by the economy in the long run include rapid population growth, relatively high incidence of poverty and social and economic inequalities, low productivity, degradation of natural resources, deterioration of environmental quality, and intensified international competition. To tackle these problems, the Government adopted the concept of sustainable development for economic planning embodied in the Medium-Term Philippine Development Plan for 1993-1998, the Updated Medium Term Philippine Development Plan for 1996-1998, and the long-term development strategy: Philippine Agenda 21. The administration has reconfirmed the Government's commitment to the concept of sustainable development by emphasizing, in particular in the President's ten point action program, that sustainable economic growth must be compatible with environmental protection and be consistent with the environment's carrying capacity.

3. Air Quality Management

Like almost all Asian developing countries, the Philippines has a host of environmental problems that are rooted in rapid population growth, high population density, limited investment for environmental protection and inadequate institutional capacity for environmental management. Major environmental problems in urban areas are related to the lack of waste management and drainage facilities and urban congestion, as manifested by pollution of natural water bodies, poor environmental sanitation in crowded and low-income areas, excessive noise and air pollution. These problems are particularly serious in Metro Manila, a conglomeration of 17 autonomous local government units (LGUs) consisting of sixteen (16) cities and one municipality with policies coordinated by the Metro Manila Development Authority (MMDA).

With a land area of 636 square kilometers (KM^2) and a population of 11.553 million as of August 2007, Metro Manila is the largest, most densely populated, and most economically advanced urban center in the country. Metro Manila is one of the two defined metropolitan areas in the Philippines, the other being Metro Cebu. It is one of Asia's megacities and is facing the range of environmental problems and issues similar to those being experienced in other megacities. Among the environmental problems, air pollution is the most pressing considering its severity and adverse effects of public health city wide and its significant adverse impacts on socioeconomic conditions.

4. Sources of Emissions

The major sources of air pollutants in the Metro Manila air shed include vehicular emissions, emissions from industrial processes, and combustion of fuels in power plants, industries, and commercial establishments. During the decade up to 1996, the number of vehicles in the Philippines increased at an annual growth rate of 10.6 percent; over 60 percent of the national vehicle fleet was in the air shed. There were approximately 1.2 million motor vehicles in Metro manila and another 0.6 million vehicles in the surrounding provinces in 1996. About one third of the fleet uses diesel engines. In total it is estimated that there are at least 2,700 industries located in the air shed that require operating permits relating to air emission standards.

The major pollutants from diesel engines, total suspended particulates (TSP), a high proportion of which consists of suspended particulate matter of less than 10 microns (PM_{10}) from carbon particles or soot, heavy hydrocarbons condensed or absorbed onto the soot, and sulfate, and other byproducts of combustion that may be carcinogenic. Gasoline engines emit carbon monoxide (CO), nitrogen oxide (NO_x), lead, and volatile organic compounds.

5. Ambient Air Quality

The Philippines originally implemented national ambient air quality standards in 1978; these were revised and amended by the Department of Environment and Natural Resources (DENR) in 1992. The purpose of these standards is to protect public health and welfare, and reduce damage to property. Standards for individual pollutants are set for various periods of time; the most often quoted are those relating to a 24-hour period and the annual average figures.

A comprehensive inventory of mobile and stationary sources of emissions in Metro Manila based on detailed and extensive field surveys has not yet been undertaken. Estimates of air pollution have been made in number of studies, based on a combination of limited field surveys and emission factors established in developed countries. In Metro Manila, it is estimated that the present levels of the major pollutants amount to about 116,000 tons of $PM_{10,}$ 39,000 tons of sulfur oxide (SO_x) and 140 tons of lead a year. Concentrations of other criteria pollutants such as carbon monoxide (CO), ozone (O_3), nitrogen oxide (NO_x) hydrocarbons, and volatile organic compounds are not well

documented, but are expected to be increasing rapidly in line with economic and social activities.

6. Estimates of Health Impacts and Economic Cost

The major impact of air pollution is on public health. The air quality data collected in Metro Manila clearly demonstrates that the level of pollutants in the air is well above that commonly affects human health. Surveys conducted with World Health Organization assistance indicate that people who spend a large portion of their time in the road environment are especially prone to chest ailments, children have high blood lead levels, and the population resident adjacent low-level dwellings experience a significantly higher incidence of morbidity.

Analysis of the impact of air pollution on society has concluded that the poor are the most adversely affected group. A valuation of health impacts undertaken for PM_{10}, SO_x and lead has concluded that in 1996 prices annual losses from PM_{10} amount to about ₱3,600 million, SO_x ₱950 million, while those attributable to lead are ₱443 million. Even without including other pollutants and material damage, the costs from polluted air to residents of Metro manila are considerable.

7. Constraints and Issues

At present, air quality management in Metro Manila is constrained by limited institutional capacity of the concerned agencies, which is attributable to inadequacies in financial and human resources, equipment and facilities. These inadequacies result in the lack of reliable and up-to-date data on emission sources and air quality, weak enforcement standards and regulations, and limited capability for predicting air quality consequence of changes in various socioeconomic factors. Strengthening of institutional capacity is critically important to the success of air quality management.

A key concern is the general lack of enforcement of existing standards and regulations. While sufficient laws and regulations are theoretically in place to deal with air pollution violations, it is apparent that few organizations or individuals regard law enforcement as a deterrent. Major efforts are required to improve public awareness and support for strengthening the enforcement of air emission standards. Without satisfactory compliance over the short and medium term, the objectives of improving air quality will not be achieved. A shortage of funding and human resources is a key problem area if an effective enforcement capability and capacity is to be created and maintained. To facilitate sustainable air quality management, resources need to be raised from the sector through a combination of realistic fees and penalty charges, the introduction of market based mechanisms for air pollution, and a charge on vehicles to reflect the pollution they cause.

8. Government Objectives and Strategy

The seriousness of air pollution in the country, particularly in Metro Manila, is fully recognized by the Government and the political institutions. The intention of the Government to tackle the air pollution problem is expressed in the Philippine Agenda 21 document.

At present, the legal basis for air pollution control is provided by three laws relating to stationary pollution sources, mobile sources, and environmental impact assessment.[1] These three laws are supported by a number of other rules and regulations relating to motor vehicles inspection, regulation and quality control of oil products.

Moreover, with the passage of Republic Act 8749, known as the Philippine Clean Air Act of 1999 provides the government with a stronger and more comprehensive legal basis and framework for air quality management. Pursuant to Section 51 of RA 8749 the Implementing rules and regulations of this Act is provided in DENR Administrative Order No. 2000-81 Series of 2000.

B. CLIMATE CHANGE

Situation Analysis

1. The Philippines' Initial National Communication on Climate Change issued in 1999 documented the country's indicative vulnerabilities which this programme seeks to complete and address through anticipatory national sectoral adaptation strategies, The report cites that the results of the global circulation models for a doubling of carbon dioxide scenario, a 2-3 degree centigrade rise in annual temperature is expected to impact areas like Eastern Mindanao, portions of Samar, Quezon, Metro Manila and other highly urbanized areas. An increase in annual rainfall is projected in the Central Visayas and Southern Tagalog provinces, including Metro Manila. On the other hand, Northern and Eastern Mindanao and parts of Western Luzon, are expected to have a decrease in annual rainfall. Sectoral water requirements are expected to be significantly affected by these projected changes in precipitation patterns. Initial studies have established decreasing inflows in the country's reservoirs, indicating possible adverse implications on the country's water supplies.

2. For other ecosystems like the country's coastal areas, initial studies indicate that existing coastal problems like flooding and inundation may increase due to accelerated sea level rise and increasing frequencies of typhoons and coastal storms. This will be further aggravated by the degradation of coastal and marine ecosystems from human-induced causes like pollution, over-exploitation of coastal resources and uncontrolled

1 P.D. 984. The Pollution[1] Control Law,18 August 1976; P.D. 1181: Providing for the Prevention, Control and Abatement of Air Pollution from motor vehicles and for other Purposes. 19 August 1977 and P.D. 1596: Environmental Impact Assessment System, 11 June 1978.

development. With approximately 70% of the country's municipalities and cities situated in the country's 32,400 kilometer coastline, about 50 million people are at risk from these climatic hazards. The poorest coastal population like fisherfolks and informal settlers in coastal cities are expected to be hardest hit by climate change. In terms of impact on food security, climate change could seriously affect coastal fisheries because of coral bleaching. Coastal fisheries provide around 40-60% of total fish catch, representing approximately 4% of the country's gross national product and 70% of the total intake of its populace. Overall, the Philippines' coastal and marine resources directly provide food and employment to around 1 million Filipinos, primarily poor fisherfolks.

3. Watersheds, which contain the country's forests and a significant portion of its biodiversity are also at risk of being adversely affected by climate change. In a study on climate change adaptation in watershed areas and upland farmers in the Philippines, it was noted that climate change could translate to about 17% increase in the wet season streamflow and a decrease of around 35% in dry season streamflow of the watershed. The increase in streamflow could lead to higher likelihood of floods in the service areas of Upper Pampanga River integrated Irrigation System than it is at the present. Likewise, the projected decrease in streamflow during the dry season will likely increase the incidence of water shortage which could be aggravated by the increasing water demand due to increasing temperature. The projected changes in climate and the associated changes in streamflow patterns of PCW will likely have more serious impacts on the lowland farmers in view of the absence of deliberate program to reduce the vulnerability of the lowland farmers to floods and water shortages. Downstream effects include impact on about 1.5 million of agricultural lands depending on irrigation water from these watersheds. A third of the country's total population living in the uplands of these watersheds and depending on them for sustenance, stand to be directly affected. This includes most of the indigenous peoples representing around 8.2% of the country's total population. As agriculture is the country's economic lifeline and the anchor of its food security, any factor like climate change which would adversely affect it is an issue that needs to be seriously addressed. The Philippines' wetlands covering approximately 14,100 sq. km. and comprising around 22 lakes, 8 freshwater swamps and marshes (e.g. Liguasan Marsh) and 61 coastal wetlands also stand to be affected, with possible significant change in inflows and run-off, thereby threatening their significant biodiversity.

4. Over-all, around two thirds of the entire poor population of the Philippines (also referred to as rural poor) reside in and depend on the country's terrestrial and coastal ecosystems for livelihood and sustenance. As of end 2007, this totaled 24.4 million Filipinos or 33% of the total population of 88.6 million. Of this number, the indigenous peoples, comprise approximately 8% or 7.08 million of the population. Farmers and fishermen have poverty incidences of 42 and 43%, respectively. For the urban poor (15% of the total poor), climate poses an additional problems in terms of increased risks to their safety and health since many of them live in dangerous areas like riverbanks, shorelines, dumpsites and low lying areas susceptible to flooding. Over-all, women dominated with a poverty incidence of approximately 29%.

5. The emergence of new challenges like climate change is expected to strain the health sector's capacity to cope, which is already plagued by such factors as poverty and inequity. If this is not addressed, climate change related exposures and increase in disease vectors could translate to increase in morbidity, deaths and injury. Health impacts of climate change need to be addressed because these can further increase the vulnerability of the poor, who are already reeling from other factors like income inequity and lack of basic services.

6. Clearly, climate change and its impacts will exacerbate the vulnerabilities of the poor which are complex and reflect deep-rooted cultural and institutional dynamics. Natural disasters, including meteorologically induced ones, can seriously affect the natural resource base on which majority of the poor depend upon for sustenance and livelihood, as well as, increase their vulnerability in terms of increased likelihood of diseases. These events can result in the downward socio-economic spiral for the poor population. It could compromise the country's achievement of the MDGs especially poverty reduction, health, water, environmental sustainability and human settlements, among others. Data from past and recent events bear these out. For example, from 1995 to 2007, the combined impacts of flashfloods, typhoons and dry spells on the agriculture sector alone, affected a total of 412,362 hectares equivalent to a total production loss of 5,137,923 million pesos and affecting more than 400,000 farmers/fisherfolks. These events have also resulted to damages to agricultural services amounting to 4.86 million pesos. For the forestry sector, extreme droughts from 2000-2007 have adversely affected 17,152 hectares of forest lands equivalent to 106,387 million pesos worth of damages. The upland poor, who are also often indigenous peoples whose ancestral domains are in these forest lands, were the most affected, being primarily dependent on forest resources for subsistence and livelihood. Unfortunately, the factors fueling poverty and vulnerability are still very much at play, e.g., the economy remains fragile, the degradation of ecological resources continue, an optimal governance regime remains elusive and basic social services remain limited, therefore, amplifying the impacts of climatic events. This situation can be traced back to the underlying structural inequities which have prevented the poor and marginalized, including women, from improving their lives and that of others.

7. A major factor preventing these structural inequities and the attendant problems from being effectively addressed is the inadequate capacity of the national and local authorities, as duty bearers, to provide the necessary support and enabling environment for the vulnerable communities, as claim holders, to effectively confront the socioeconomic problems facing them. This holds true for meeting the additional challenges posed by climate change risks. The capacities of these communities to cope with the projected impacts of climate change, as evidenced by their current response to increasing climate vulnerability and unexpected changes in climatic patterns, are also severely constrained. Indicative capacity gaps are in terms of enabling policies and participatory mechanisms, institutional systems and procedures, including tools, individual skills and competencies of the concerned personnel in the bureaucracies at the national and local levels, a general lack of awareness of the magnitude of the impacts

and competency to undertake appropriate adaptation measures in response to climate change among the affected populace.

8. The key, therefore, is to enhance the country's coping or adaptation capacity, especially those of the critical stakeholders who stand to be directly affected by the climate change phenomenon, as well as, those who can provide the necessary information and wherewithal to enable anticipatory adaptation to take place. A broad range of adaptation options and knowledge is available, some of which are already either in place or are being tested within the country. However, these are limited, often segmented and are generally considered inadequate to address the full brunt of climate change and its uncertainties. There are also emerging technologies and adaptation approaches, which, if tested and adapted to the Philippines, will significantly increase the country's over-all coping capacity to climate change. The challenge is to ensure that these promising approaches are tested, adapted and appropriate ones replicated throughout the country. It is also important that both duty bearers and claim holders have the capacities to jointly assess all available adaptation options, mainstream the appropriate ones in the country's national and local development processes and develop a collective adaptive capacity to climate change risks which are to be of great magnitudes.

Strategies and the proposed Joint Programme

9. The Philippines and Spain, as Parties to the UN Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol, have certain commitments in relation to adaptation. These provide for parties to cooperate in preparing for adaptation. to the impacts of climate change; take into account climate change in their relevant social, economic and environmental policies and actions; and for developed country Parties that are particularly vulnerable to the adverse effects of climate change, in meeting the cost of adaptation.

10. The Philippines also subscribed to other related global agreements like the Johannesburg Plan of Implementation (JPOI) and frameworks like the Hyogo Framework of Action which address vulnerability, risk assessment and disaster management. Moreover, the country is committed to the Millennium Declaration to achieve the MDGs which would be affected if climate risks are not addressed appropriately. The Philippine government, in its Initial National Communication on Climate Change, indicated the need for adaptation measures, aspects of which are echoed in its various planning and program documents, i.e. the 2004-2010 Medium Term Development Plan (MTPDP) and the 2001-2030 National Framework for Physical Planning (NFPP), which provide for mitigation of natural disasters.

11. The joint programme will enable the attainment of the above commitments and directly contribute to the achievement of the MDGs, the UNDAF outcome on environmental sustainability.

12. The joint programme titled "Strengthening the Philippines' Institutional Capacity to Adapt to Climate Change" is submitted under the Millennium Development Goals

(MDG) thematic window on Environment and Climate Change and is aligned to the outcome area on "Enhancing Capacity to Adapt to Climate Change". It will be implemented over three (3) years from 2008- 2010. The joint programme seeks to assist the Philippines address the key strategic issues that have a direct bearing on the achievement of the MDGs by pursuing the following three (3) outcomes

a. Climate risk reduction (CRR) mainstreamed into key national and selected local development plans and processes;
b. Enhanced national and local capacity to develop. Manage and administer plans, programmes and projects addressing climate change risks; and
c. Coping mechanisms improved through pilot demonstration projects.

The Government recognized the deteriorating environmental conditions in Metro Manila and requested foreign lending institutions to assist in preparing the comprehensive environmental improvement program. The Government entered into an agreement with the foreign lending institutions (FLIs) to carry on the program. Presented below is the result of the audit of air quality.

C. Metro Manila Air Quality Improvement Sector Development Program

EXECUTIVE SUMMARY

A. Background

On December 21, 1998, the Philippine government thru the Department of Finance signed a loan agreement with ADB for the Metro Manila Air Quality Improvement Sector Development Program (MMAQISDP) through the combination of a policy loan, investment loans and a technical assistance (TA) grant of US$1.5 Million to develop air emission policies and enhance public awareness to support the abatement of air pollution. The program has a total funding of US$630.845 million (inclusive of US$27.355 million government counterpart) from various donor institutions. Table 1 below shows the total loan for MMAQISDP:

Table 1
MMAQISDP
Sources of Funds

Loan Acct. No.	Purpose	Amount Committed	Cancellation US$	Net Committed
ADB 1663 PHI	Policy Loan -Budgetary support under the DOF	US$200 M	-	US$200 M
ADB 1664 PHI	Investment loan for the establishment of an air pollution control facility that will assist industries, commercial establishments and the transport sector to make investment. Implemented by Land Bank of the Phil.	JPY3,057.375M or US$25 M	JPY2,335.739 M	JPY721.636 M
JBIC CL20	Co-financing for the Program loan	JPY36.3 B or US$ 300 M		JPY 36.3 B or US$ 300 M
ADB 1665 PHI	Investment loan to finance part of the necessary public sector investments. Implementing agencies are DPWH, DOTC, MMDA, DENR & DOH.	US$ 71 M		US$71 M
SIDA	Investment loan to support training for ambient air quality monitoring and air dispersion modeling	US$ 4.50 M	-	US$ 4.50 M
TA Grant	To undertake air emission policy studies and strengthen the government's capability and capacity to address a range of air emission policies	US$1.50 M		US$ 1.50 M
	GOP counterpart	US$ 27.355M		US$27.355 M
	Total	**US$630.845 M**		

The three ADB loans (ADB 1663 PHI, 1664 PHI & 1665PHI) comprising the Program were declared effective on 29 December 1998, with the designed closing /last application dates of 31 December 2002, 29 December 2002, and 31 December 2003, respectively. Due to the relatively little implementation of the first three years since loan effectiveness, the closing dates of loan 1663 was extended for one year to 31 December 2003; the sub-loan's last application of loan 1664 was extended from 29 December 2002 to 31 October 2003. Loan 1664 PHI was closed on 29 December 2003 as scheduled with partial cancellation of Yen 2,335,738,969. Also, the Overseas Economic Cooperation Fund of Japan (now JBIC) has co-financed the Program amounting to JPY36.3 billion under loan agreement JBIC CL20.

Relevance and Use of Import Settlement Fund –(JPY36.3 Billion)

The Import Settlement fund, amounting to Yen equivalent of USD300 million (about JPY 36.3 Billion, JBIC CL 20), was a significant source of financing requirement in supplementing international reserves of the country in the succeeding years. As an official development assistance loan to the country, the Fund not only contributed to the improvement of the environment but also presented an option to the country's handling of the currency crisis.

The goods imported out of the Fund were generally in the form of internal fuels and lubricants (e.g. Crude, unleaded gasoline), which are considered important raw materials in the country's main industries such as manufacturing, electronic, among others.

Use of Counterpart Fund – ₱7.7 Billion

The use of the counterpart fund amounting to P7.7 was attributed generally as budget support (peso counterpart requirement) to various on-going OECF/JBIC assisted projects. From 1999 to 2002, the fund was allocated as follows:

Table 2
Peso counterpart Fund
JBIC CL 20

Year	No. of projects Funded	Amount in Peso	%
1999	46	2,767,367,000.00	35.7
2000	76	2,609,864,421.00	33.7
2001	112	2,314,211,226.00	30.0
2002	2	46,972,737.70	0.6
Total	**236**	**7,738,415,384.70**	**100.0**

B. Objective and Scope

The objective of the Program is to promote policy reforms to improve the air quality through the abatement of the mobile and stationary sources of air pollution. It focuses on the Metro Manila airshed, the location of the main concentrations of air

pollution. The scope consists of policy reforms and investment requirements integrated with the agreed policy matrix termed the Air Quality Action Plan.

The agreed policy matrix is designed to tackle nine key air emission issues: (i) mitigate air pollution from mobile sources; (ii) mitigate air pollution from stationary sources; (iii) improve fuel quality; (iv) reduce emissions from vehicular use; (v) reduce traffic congestion and improve traffic flow; (vi) strengthen ambient air quality monitoring, evaluation, and reporting; (vii) intensify public awareness; (viii) monitor coordination and implementation of the policy matrix; and (ix) strengthen the capacity of the institutions involved.

C. Project Cost

The estimated Project cost under the Investment loan (ADB 1665 PHI) is summarized by category in Table 2:

Table 2
MMAQISDP
Investment Component

No.	Item	Amount Allocated in US$	
		Category	**Subcategory**
1	Civil Works	21,770,000.00	
1A	DPWH		19,520,000.00
1B	MMDA		2,250,000.00
2	Equipment	14,350,000.00	
2A	Traffic Engineering & Management		6,760,000.00
2B	Ambient Air Quality Monitoring		6,190,000.00 750,000.00
2C	Public Health Monitoring		150,000.00
2D	Anti-Smoke Belching		500,000.00
3	Capacity Building and Training	10,240,000.00	
4	Consulting Services	9,500,000.00	
5	Interest & Commitment Charges	7,860,000.00	
6	Unallocated	7,280,000.00	
	Total	**71,000,000.00**	

The designed closing date of the Investment Loan is 31 December 2003. However, due to the delays in the implementation of the Investment Loan ADB 1665 PHI was extended from CY 2004 to CY 2006 to allow sufficient time for the completion of implementing agency's (DENR, MMDA, DPWH, DOTC and DOH) respective components. Time extension of the investment loan from 1 January 2004 to 31 December 2006 was granted by the ADB on February 23, 2004.

D. Issues on Investment Loan Cancellation

Originally, the funds sourced from investment loan amounted to US$ 71 million with the Asian Development Bank (ADB) 1665 PHI.. On September 23, 2005 meeting, DPWH and MMDA informed the Program Coordination & Monitoring Unit (PCMU) of

their intention to cancel their components, Road Rehabilitation Unit for DPWH and Traffic Engineering & Management for MMDA. Reasons cited for the cancellation are as follows:

The remaining budget of MMDA component was re-aligned to their Integrated Infrastructure Development Program (IIDP) per their proposal during the ADB Review Mission on October 2004. After several discussions with ADB, the proposal was restructured based on the availability of the funds from the loan. On 31 August 2005, the MMDA informed ADB of its intention to cancel its remaining component due to non-availability of appropriations for CY 2006 but committed to finish the on-going contract and release the retention fee to Halcrow Group Ltd.. With the loan closing date of 31 December 2006, it will be impossible for MMDA to complete its activities before the loan closing date.

DPWH is the implementing agency to implement the road rehabilitation component of about 55 km of highly trafficked national roads in Metro Manila. On March 8, 2004, the Metro Manila Regional Development Council (MMRDC) under the leadership of Chairman Bayani Fernando refused to endorse the road rehabilitation design using asphalt overlay. After several discussions with the MMRDC, DPWH received concurrence from the Chairman of MMRDC on April 21, 2005 to undertake the road rehabilitation but only to the stretch of Buendia to Kamias-Kamuning. Clearance to proceed with its implementation was granted by the Office of the President in July 27, 2005 but was later re-called by the same office on August 22, 2005.

Likewise, on the first quarter of 2005, the ADB approved the DOH's request to cancel the unutilized portion of the loan amounting to US$27,354.46 and US$27,237.96 (total of US$54,592.42) dated 22 February 2005 and 29 March 2005, respectively. DOH procured equipment to support a public health monitoring program of the project. A total of nine (9) withdrawals, from June 2002 to March 2003, were made from the loan funds amounting to US$95,407.58.

The Executive Committee of MMAQISDP, which coordinates and monitors the implementation of the project, approved the decision of DPWH to cancel the loan after evaluation of the project design while MMDA has yet to be decided once the final disbursed amount has been confirmed with ADB.

E. Issues and Concerns – DENR Component

a. Delay in the conduct of training for the transfer of technology on the equipment installed by ETI /IMACH, to assure proper operation of the ambient network, due to delay in payment to contractor.

Management mentioned that the delay was due to the suspension of payment of contractor for ambient air quality monitoring stations due to violation of contract provisions. Hence, operations/maintenance payment for the months of November 2004

up to February 2006 was suspended, pending resolution of said issues. Management also mentioned that based on the submitted credentials of ETI personnel, the capability of the contractor to provide trainings is inadequate.

b. Delayed contracting of PCMU consultant and Technical Secretariat, which were awarded only in the later part of CY 2005.

c. ***Sustainability of operations and maintenance of the network***.
DENR to prepare a detailed schedule including modalities of private sector participation.

With the loan cancellation of DOH and the requested cancellation of DPWH and MMDA loan components, total funds sourced from ADB was reduced. Details of availments of the Investment loan as at 31 December 2005 are shown under Table 3.

Table 3
Investment Loan (US$71M)
Schedule of Cancellations, Availment and Outstanding Balance
As at December 31, 2005

Implementing Agency	Loan Allocation	Cancellation US$	Availment US$	Repayment US$	Outstanding Balance US$
DPWH	23,570,000.00	22,258,764.73 [2]	1,311,235.27		1,311,235.27
DOH	150,000.00	54,592.42 [3]	95,407.58		95,407.58
DOTC	1,550,000.00	-	920,154.00		920,154.00
MMDA	13,220,000.00	8,958,815.57 [4]	3,901,669.00		3,901,669.00
DENR	18,920,000.00	-	8,859,758.27		8,859,758.27
Commitment Fees			2,272,312.53 [5]		2,272,312.53
Interest			2,095,317.58 [6]		2,095,317.58
Total	57,410,000.00	31,272,172.72	19,455,854.23		19,455,854.23

Note : Total availments are gathered from DENR report while capitalized commitment fees and interest are gathered from the Bureau of Treasury.

As at 31 December 2005 total availments of the Investment Loan per ADB records amounted to US$20,640,00.00 inclusive of capitalized interest and commitment charges of US$2,095,317.58 and US$2,272,312.53, respectively, or a total of US$4,367,630.11. Repayments totalled US$1,239,216.76, hence outstanding balance as at 31 December 2005 amounted to US$19,401,559.16.

[2] Request for cancellation per letter dated 20 February 2006 by the Secretary of the Department of Finance to ADB
[3] Effected as cancellation by ADB.
[4] The total remaining amount of US$8,958,815.57 of the Traffic Engineering Management Component for cancellation under MMDA is still subject for reconciliation with ADB.
[5] Total capitalized commitment charges as at 12/31/2005
[6] Total capitalized interest as at 12/31/2005

F. The significant observations and corresponding recommendations, which were presented in detail in Part V of the consolidated report (Annex A) are summarized below:

Utilization of Motor Vehicles acquired under the Metro Manila Air Quality Improvement Sector Development Program

1. Most of the vehicles procured under the vehicle procurement program of the MMAQISDP were not utilized for the purpose these were intended due to absence of clear-cut guidelines on how to utilize them in the enforcement and monitoring activities towards the attainment of the objectives of the program. **We recommended, and management, assured the Team that the Undersecretary for Transportation implement the following:**

a. To cause the transfer of ownership of the vehicle to their rightful beneficiaries/end-user since the program was already concluded. Require also the PSPMS to use the Acknowledgment Receipt for Equipment (ARE) forms in lieu of MRs as required under the Manual on the New Government Accounting System (NGAS), Volume II. In the conduct of similar programs or [project in the future, coordinate with the Secretary regarding the assignment and distribution of the program/project resources to proper officials and channeling the use of these assets for the activities that will promote the intentions of the program;

b. Instruct the Director PUDD, to recall the vehicles issued to the DOTC official not involved in the monitoring and enforcement activities and the Assistant Secretary, LTO to retrieve the vehicle from the former Director who is no longer in the government service and utilize the same in the monitoring and enforcement activities of the DOTC PETC Monitoring Team and DOTC Action Center; and

c. Cause the investigation of the non-return of the vehicles issued to officials who is no longer connected with the LTO.

2. The significant delay in the project implementation on the part of MMDA and that loan proceeds for Part A –DPWH portion was not fully utilized thus causing loss to the government in terms of project benefits and commitment charges. **We recommended that the Project Management Office and other Officials concerned of MMDA identify the issues and problems causing the delay and adopt measures to fast track project completion. We also recommended and management concurred that the road rehabilitation component of the project be cancelled in order to avoid the incurrence of additional commitment fees.**

For future loans/projects, we further recommended that DPWH should maximize the utilization of the loan proceeds for the intended purpose within the

implementation period and resolve immediately all issues to avoid delay in project implementation. Management should also keep track with the implementation schedule of the project, which is aligned with the disbursement schedule embodied in the loan agreement /appraisal report, to avoid the incurrence of additional commitment fees.

Management commented that a Resolution is now being processed for approval of DENR Secretary endorsing the cancellation of the DPWH and MMDA components of the loan.

3. Delay in the conduct of training for the transfer of technology on the equipment installed to assure proper operation of the ambient network, due to delay in payment to contractor, may result in the failure of achieving the program's objective. **We recommended that Management should require the contractor to adhere strictly to the provisions of the contract and trainings be conducted to assure proper operation of the network upon take over by EMB-DENR, to achieve the project's objective.**

4. Disbursements thru direct payment amounting to US$3.189 million and ₱59.867 million for MMDA and DPWH, respectively, have not been recorded in the books of the MMAQISDP, thereby rendering the asset and expense accounts unreliable. **We recommended that Management continue following-up the release of NCAA to effect the necessary adjustments in the books. We also recommended that management should see to it that NCAAs are regularly requested from the DBM for all direct payments made by the foreign lending institutions (FLIs) to ensure that all disbursements from the loan proceeds are recorded in the books of accounts.**

5. Construction in Progress-Agency Asset account (264) amounting to ₱13.705 million has been outstanding in the books due to non-issuance of the acceptance certificate by the end user resulting in the understatement of the Property Plant & Equipment -Building and the corresponding Depreciation thereof in the agency books. Likewise, the 50% retention fee amounting to ₱275,655.84 was released to the contractor without final acceptance of the works in violation of RA 9184. **We recommended that Management require the contractor to rectify the defects (if any) and settle the issue. Issuance of Acceptance Certificate should be made as basis in recording the PPE-Building and Accumulated Accounts in the books of the agency. Likewise, release of retention fee should be made only upon final acceptance of the works as required under RA 9184.**

6. Balances of accounts Due from Other Funds account (144) amounting to ₱7.995 million have remained unliquidated as at 31 December 2005, resulting in the understatement of expenses and overstatement of assets. **We recommended that the accountant should see to it that long outstanding Due from Other Funds be liquidated at the end of the year in order to update recording of all expenses incurred in the appropriate account and to report accurately the balance of said account. Also, comply with the provisions of EO 338 and COA-DBM Joint Circular 1-97 regarding the transfer of all cash balances to the National Treasury.**

7. Two vehicles amounting to ₱1.420 million turned-over by Pennoni International Philippines, Inc. (consultant) to the DENR remained registered in the name of the former and insured in a private insurance company in violation of Section 5 of RA 656. **We recommended, and Management agreed, to strictly adhere to the provisions of Section 489 of the GAAM.**

8. Balance of Property, Plant and Equipment (PPE) per books did not reconcile with the Inventory Report, showing a difference of ₱59,066,455.20. **We recommend that the Accounting Services immediately record the said property and equipment in the books of MMAQISDP upon receipt of the NCAA from DBM.**

D. GEF Grant for Preparation of Climate Change Adaptation Phase I Project

Background

In June 7, 2007 the International Bank for Reconstruction and Development (IBRD) ("World Bank"), acting as Implementing Agency of the Global Environment Facility (GEF) extended financial assistance to the Republic of the Philippines , a grant in an amount not to exceed two hundred and eighty three US Dolllars (US$283,000) for the Project Climate Change Adaptation Phase I for a duration of nine (9) months. The Agreement shall become effective as of the date of the countersignature and shall be deemed withdrawn if the World Bank has not received the countersigned copy of this Agreement within sixty (60) days after the date of the signature of the Agreement by the World Bank.

Grant Objectives and Description

The objective of the Grant is to prepare the Climate Change Adaptation Phase I Project, which Project has as its objectives to contribute to the institutional capacity building for climate risk management in the key participating departments of the Government of the Philippines. The activities for which the Grant is given consists of the following parts:

a. Establishing project management and coordination arrangements;
b. Conducting an institutional review of the overall coordination of adaptation to climate change and on that basis present options for improving the system;
c. Consisting technical and institutional review on climate risk management in the key participating departments;
d. Carry-out studies on climate risk management investment opportunities in : (i) Department of environment and Natural Resources (DENR), including details on linkage to the National Program Support for the Environment and Natural Resources Management (NPS- ENRM) and other ongoing activities/investments; (ii) Department of Agriculture (DA), including details on linkages to the Diversified Farm Income and Market Development Project, among others;
e. Carry-out technical study of capacity building needs in the Philippines Atmospheric, Geophysical and astronomical Services Administration (PAGASA) for enhanced provision of climate risk information, including climate projects and forecasts on various timescales;
f. Conducting a review of the current weather insurance to develop and strengthen the institutional and operational aspects for weather risk insurance in the country;
g. Preparing public awareness plan and organizing stakeholder consultations;
h. Conducting environmental and social analyses, including safeguards;

The project started in July 2008 and is implemented by the Department of Environment and Natural Resources (DENR). The expected closing date of the project is December 28, 2008.