



CITY OF ILOILO CLEAN AIR PROGRAM

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AIR POLLUTION TREND IN ILOILO CITY



❖ Problem in rapid urbanization - due to :

1. increasing population – daytime population is now **half a million**
2. increasing importance of the city in the development of Region 6 – trade, education, governance, rural-urban linkage

❖ Problem in the increasing demand for transportation – there are now more than 68,000 motor vehicles in the city, of which :

- 20% of total registered vehicles are for hire
- more than 4000 tri-cycles, 85% of which are 2 stroke
- more than 5000 jeepneys, all of which are diesel fed
- more than 700 taxi's



AIR POLLUTION TREND IN THE CITY



❖ Increasing number of motorcycles as a popular mode of transportation

- more than 10,000 registered motorcycles and tri-cycles
- this accounts for 30% of the total motor vehicle registered

❖ Problem in the increasing demand for electricity

- Current supply from diesel plants are not enough
- Construction of 164 MW coal plant (**in response to power shortage**) is almost complete

MANAGING THE AIR QUALITY OF THE CITY



❖ INSTITUTIONAL ARRANGEMENT

1. Land Transportation Office (LTO)

- Annual mandatory vehicle inspection and emission test of all motor vehicles (during registration)
- Anti-smoke belching (roadside apprehension)

2. Department of Environment and Natural Resources (DENR)

- Management of areas below air quality standards
- Establishment of air monitoring network
- Conduct of emission inventory
- Establishment of Airsheds
- Air Permits for stationary sources
- Certificate of Conformity for new vehicles

MANAGING THE AIR QUALITY OF THE CITY



❖ INSTITUTIONAL ARRANGEMENT

2. Department of Environment and Natural Resources (DENR)

- Regulation of fuels
- Phase out of Ozone Depleting Substances
- Regulate emission of radioactive substances
- Plan for the reduction of greenhouse gas emission

3. Iloilo City

- Share in the responsibility of managing emissions from mobile and stationary sources
- Prepare and implement programs to reduce greenhouse gas emissions and air pollution

- * Transport and land use planning
- * Energy efficiency
- * Alternative fuel
- * Preparation of Clean Air Plan for the City

LOCAL ACTION



1. Transport and Traffic Management

Program : Perimeter Boundary Ordinance (**ICLEI Cities for Climate Protection Program**)

Description : Establishment of Jeepney Terminals to regulate the entry of provincial jeepneys in the city.

Benefits :

- * No. of jeepneys restricted - 1,175 jeepneys
- * Fuel Saved - 11,152 liters/day
- * Greenhouse gas avoided - 29,329 kgs/day
- * Air pollutant avoided:
 - NOx avoided - 111,969 gm/day
 - SOx avoided - 2,177.75 gm/day
 - PM avoided - 12,959.37 gm/day

LOCAL ACTION



2. Cleaner Fuel

Program : LPG Retrofitting for Taxi (*USAID Sustainable Energy Development Program & ICLEI Cities for Climate Protection*)

Description : Promotional campaign to encourage taxi operators to shift fuel from gasoline to LPG

Benefits : over 430 taxi converted, over 6 million kg of greenhouse gas avoided per year.

3. Energy Efficiency

Program : Retrofitting of Streetlights (*ICLEI Cities for Climate Protection*)

Description : Conversion of street lamps from fluorescent or incandescent lamp to High Pressure Sodium lamps

Benefits : Over 10,000 lamps converted, saved more than 9000 kw-h per day, over 5000 kg of greenhouse gas avoided everyday

LOCAL ACTION



4. Energy Efficiency

Program : Promotion of Energy Efficiency in the Private Sector (*ICLEI Cities for Climate Protection*)

Description : Promotional activities to help commercial establishments in Lamp Retrofitting .

Benefits : Over 2,000 lamps converted, saved over 85,000 kw-hr. of electricity every year, avoided over 50,000 kg/year of greenhouse gas

5. Alternative Fuels

Program : Promotion of Bio-fuels (*USAID- Sustainable Energy Devt. Program*)

Description : Promotional activities to promote bio-diesel and ethanol

Benefits : Informed and educated the general public on the use of bio-fuels in preparation for the passage of the Bio-fuels Act

LOCAL ACTION



4. Mission/ Vision Workshop

Program : Mission /Vision Workshop (*GTZ-ASEAN Clean Air for Smaller Cities*)

Description : A participatory review of the city's air quality and the establishment of mission/vision statements for clean air

Benefits : Created a sense of ownership and awareness of key issues among the stakeholders.

5. Strategic Urban Devt. & Transport Planning

Program : Land Use Planning & Transport Planning (*GTZ-ASEAN*)

Description : A series of participatory workshop to review existing policies and initiatives in land use and transport planning

Benefits : On-going. The output of these workshops will form part of the Clean Air Plan of the City

LOCAL ACTION



5. Adaptation of New or Alternative Technologies

Program : New and Alternative Technologies (*ASEAN-GTZ Clean Air for Smaller Cities*)

Description : A study on alternative engines for Jeepneys

Benefits : On-going. The study will form part of the City's Clean Air Plan

6. Emission Inventory

Program : Emission Inventory (*ASEAN-GTZ*)

Description : Base lining of emission from different sources, mapping hot spots and analysis of Environmental Impact

Benefits : Will provide quantitative data that will serve as basis for policy making and the development of clean air plan. On-going.

Summary



Key Issue

- Low public awareness on the effects of greenhouse gas emissions and air pollution at the onset of the program

What Transpired

- Multi-sectoral participation and cooperation in most of the local actions taken by the City Government
- Development of communication strategies that helped in promoting public awareness and participation
- Active partnership with the International Council for Local Environmental Initiatives (ICLEI), USAID, ASEAN-GTZ, and other partners that helped in the planning and implementation of the Clean Air Program of the City

Summary



Realizations

- Public forums and participatory workshops were powerful in increasing the awareness of certain sectors
 - it promoted energy efficiency and alternative fuels and was largely responsible for the success of these programs
 - it created a sense of ownership among stakeholders (during a mission/vision workshop)
 - it promoted the participation of the academe in the conduct of emission inventory
- The participation of many sectors in the program inspired the city to give emphasis to multi-sectoral approach
- There is a growing recognition of the importance of involving the academe in the replication and scaling up of the program

