



Study on Practice Diffusion and Adoption Process under Cities for Climate Protection (CCP) Program in Indonesia

FINAL REPORT

Researcher:
Prof. Dr. Danang Parikesit

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CENTER FOR TRANSPORTATION AND LOGISTICS STUDIES
(P U S T R A L)
 UNIVERSITAS GADJAH MADA

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(Contract signed on 23 June 2008)

Disclaimer:

*The content of the report is solely the responsibility of the researchers
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Forewords

This Final Report on Study on Practice Diffusion and Adoption Process under Cities for Climate Protection (CCP) Program in Indonesia is submitted to comply with the Contract signed on June 23rd, 2008 between The Institute for Global Environmental Strategies (IGES) and the Center for Transportation and Logistics Studies (PUSTRAL) Gadjah Mada University Yogyakarta, Indonesia.

This report contains the findings of the practise for the diffusion and adoption process of Streetlights Management Scheme Project in Yogyakarta, Community-Based Biogas Project: Converting Liquid Waste to Energy Project in Denpasar and Fuel Switching for City Government Vehicles Project in Surabaya.

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The report will not be completed without the assistance from various individuals and organizations in Yogyakarta and Denpasar. We wish to express our sincere appreciation to The City Council of Yogyakarta and Denpasar, The City Planning Office of Yogyakarta and Denpasar, City Environment Office of Yogyakarta and Denpasar, City Infrastructure Office of Yogyakarta, Electricity Company in Yogyakarta, BORDA, Bali Fokus, Lestari Indonesia, WALHI Yogyakarta, BERNAS Yogyakarta, Kedaulatan Rakyat Yogyakarta, and individuals for their active participation and support that can make this report completed and presented to relevant parties. We hope that the results of the study can be of the consideration for other cities to reduce the green gas houses through local initiatives.

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Summary of City Profile

No	Criteria	Yogyakarta	Denpasar	Surabaya
1	Area (km ²)	32.5	127.78	326.37
2	Population (persons)	528,789***	583,600**	2,861,928***
3	GDP (Mio USD)	791.4**	711**	9,170*
4	City GDP to Provincial GDP (%)	20**	20**	23*
5	City GDP to National GDP (%)	0.3**	0.23**	3*
6	Economic Growth (%)	4.13**	5.88**	5.67*
7	Income per capita (USD)	1,787**	1,218**	3,400*
8	City Revenue (Mio USD)	62.64***	55.74***	203.5***
9	Average allocated budget for Environmental program (%)	4-5	6-8	NA

Notes: *2005 **2006 ***2007

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List of Abbreviations

APBD	:	Anggaran Pendapatan dan Belanja Daerah (Regional Budget Plan)
APEKSI	:	Asosiasi Pemerintah Kota Seluruh Indonesia (Association of Indonesian Municipalities)
ASL	:	Above Sea-Level
BAPPEDA	:	Badan Perencanaan dan Pengembangan Daerah (Planning and Development Agency)
BOD	:	Biochemical Oxygen Demand
BORDA	:	Bremen Overseas Research and Development Agency
BPD	:	Bank Pembangunan Daerah (Regional Development Bank)
BPHTB	:	Bea Perolehan Hak Atas Tanah dan Bangunan (Right Acquisition Duty for Land and Building)
BUMD	:	Badan Usaha Milik Daerah (Locally-owned Company)
CAI – Asia	:	Clean Air Initiatives in Asian Cities
CNG	:	Compressed Natural Gas
DAK	:	Dana Alokasi Umum (Special Allocation Fund)
DAU	:	Dana Alokasi Umum (General Allocation Fund)
DIY	:	Daerah Istimewa Yogyakarta (Yogyakarta Special Region)
DSDP	:	Denpasar Sewerage Development Project
GDP	:	Gross Domestic Product
GHG	:	Green House Gases
GTZ	:	German Technical Cooperation
ICLEI	:	International Council for Local Environment Initiatives
IDR	:	Indonesia Rupiah
IMB	:	Izin Mendirikan Bangunan (Building License)
IPAL	:	Instalasi Pengelolaan Air Limbah (Liquid Waste Treatment Installation)
KARTAMANTUL	:	Yogyakarta, Sleman, Bantul (agglomeration of regencies of Yogyakarta City)
KK	:	Kepala Keluarga (Households)
KTP	:	Kartu Tanda Penduduk (Population ID Card)
KWh meters	:	Kilo Watt hours meters
LPMK	:	Lembaga Pemberdayaan Masyarakat Kelurahan (Institution for Village Community Empowerment)
LSAP UAQi	:	Local Strategy and Action Plan for Urban Air Quality Improvement
MAPES	:	Mayors' Asia-Pacific Environmental Summit

MUSRENBANGDA	:	Musyawarah Perencanaan Pembangunan Daerah (Regional Development Planning Conference)
NGO	:	Non Government Organizations
PAD	:	Pendapatan Asli Daerah (Original Revenue)
PBB	:	Pajak Bumi dan Bangunan (Land and Building Tax)
PBBKB	:	Pajak Bahan Bakar Kendaraan Bermotor (Fuels Tax)
PDAM	:	Perusahaan Daerah Air Minum (Drinking Water Company))
PKB	:	Pajak Kendaraan Bermotor (Vehicle Tax)
PKBBBNKB	:	Pajak Kendaraan Bermotor dan Bea Balik Nama Kendaraan Bermotor (Motor Vehicle Tax and Motor Vehicle Ownership Exchange Duty)
PLN	:	Perusahaan Listrik Negara (State Electricity Company)
Posyandu	:	Pos Pelayanan Terpadu (Integrated Service Post)
PPH	:	Pajak Penghasilan (Personal Income Tax)
PPPABT	:	Pajak Pengambilan dan Pemanfaatan. Air Bawah Tanah (Underground water usage tax)
PROLABIR	:	Program Langit Biru (Blue Sky Programme)
Puskesmas	:	Pusat Kesehatan Masyarakat (Public Health Centre)
Renja SKPD	:	Rencana Kerja Satuan Kerja Pemerintah Daerah (Regional Apparatus Task Unit Work Plan)
Renstra SKPD	:	Rencana Strategis Satuan Kerja Pemerintah Daerah (Regional Government Task Unit Strategic Plan)
RKPD	:	Rencana Kerja Pemerintah Daerah (Regional Government Work Plan)
RPH	:	Rumah Pemotongan Hewan (Animal Slaughter House)
RPJMD	:	Rencana Pembangunan Jangka Menengah Daerah (Regional Mid-term Development Plan)
RPJPD	:	Rencana Pembangunan Jangka Panjang Daerah (Regional Long-Term Development Plan)
RSUD	:	Rumah Sakit Umum Daerah (Regional Hospital)
SDH	:	Sumber Daya Hutan (Provincial Forestry Resources)
SUTP	:	Sustainable Urban Transport Program
WALHI	:	Wawasan Lingkungan Hidup (NGOs for Environment)

Chapter 1

Introduction

1.1. Background

Cities for Climate Protection (CCP) is a campaign program introduced by ICLEI (International Council for Local Environment Initiatives)¹ for reducing green house gases to improve liveable cities and collectively global warming and climate change through local actions. In Indonesia, this program began in 2001 with 5 (five) cities as the member i.e Yogyakarta, Bogor, Surabaya, Semarang and Cilegon. In 2005, the number of cities has grown to 9 cities, including Balikpapan, Denpasar, Bandung and Medan with a total population of more than 6.5 million.

To participate in CCP Program, the City Government was obliged to develop a resolution for emission reduction and to give commitment in carrying out the following 5 milestones:

- a. Milestone 1: Emissions Inventory and Forecast
- b. Milestone 2: Setting a Reduction or Avoidance Goal
- c. Milestone 3: A Climate Action Plan
- d. Milestone 4: Measures Implemented
- e. Milestone 5: Monitoring and Verification

It should be noted that the resolution for the City Government is not legally binding, but it is the sign of commitment from the City Government in their effort to reduce green house gases emissions through programs at local level.

During CCP Program implementation, twenty-six projects have been initiated and another 20 are in the pipeline. Energy efficient street lighting was very successful and the projects made it to the last milestone, number 5. Over \$4 million in domestic investment has been leveraged and 500,000 tons of CO₂ avoided per year, mostly from new composting programs diverting waste from dumps. The annual savings are near \$1 million. Future plans include waste-to-biogas projects.² Unfortunately due to funding problem, the activity of CCP in Indonesia can not be continued.

1.2. Objective

The study aims to understand the practice diffusion and adoption process in the city governments of Surabaya, Yogyakarta, and Denpasar to examine the success factors of diffusion of good practices regarding mitigation of greenhouse gas emissions at local level through the network of CCP program of ICLEI. Projects to be reviewed in each city are as followed:

- a. Yogyakarta, Streetlights Management Scheme
- b. Surabaya, Fuel Switching for City Government Vehicles
- c. Denpasar, Community-Based Biogas Project: Converting Liquid Waste to Energy

¹ ICLEI - Local Governments for Sustainability is an international association of local governments and national and regional local government organizations that have made a commitment to sustainable development.

² Taken from USAID report on An End of Program Evaluation of The Cooperative Agreement between USAID/EGAT and The International Council for Local Environmental Initiatives (ICLEI), 2005

1.3. Methodology

The study basically undertaken the following steps:

1. Develop brief description of the project including methods to reduce greenhouse gas (GHG) emissions, stakeholders involved, cost of the project, financing mechanism, actual annual financial savings, actual / estimated annual GHG reduction and co-benefits of the project will be provided. The data will be gathered by reviewing ICLEI reports and other available data and interview related staffs, academics, residents and NGO involved in the project in each city.
2. Develop historical record of activities relevant with introduction of the practice. The events and activities are to be summarized in chronological order by stakeholders such as Mayor, city government official, city government division/department/section, city legislatives, NGO, businesses, residents, ICLEI secretariat, international organizations and consultants. The data will be gathered by interviewing related staffs involved in the project in each city, city planning office and city environment office.
3. Identify policy process stages and the role of intercity program by referring the following stages: (1) recognition of the issue, (2) agenda setting, (3) examination and decision of measures, and (4) execution of the measure. The data will be gathered by interviewing the Mayor, city legislatives, related staffs involved in the project in each city, city planning office and city environment office and related NGOs.
4. Identify mutual reference among city governments and the role of intercity program. To understand the daily information collection and learning activities by the city government officials, means of daily information collection by the officials of the environment section are to be studied. Information sources, purpose of collection, frequency of information gathering, timing of information collection vis-à-vis the policy process, and the actual utilization results of information will be studied. Information sources include ICLEI and other intercity networks, which should be identified if any. Private networks including friends and other social networks are also included. It will be studied if city government officials are searching or sharing necessary information for their works with other city government officials, and if so, how they do so. Concrete actions such as email, telephones, internet search, participation in the workshop, and so on will be identified. The role of ICLEI and other intercity program for mutual reference of city governments will be clarified. The data will be gathered by interviewing city planning office and city environment office.
5. Identify political factors in the adoption of the new practices.

The research identified and studied the specific factors that play important roles in adoption of the new practices.
6. Socio-economic statistics

Data on socio-economic environment of the city were collected annually from 2001 to the latest. Data were gathered from City Planning Office, Statistic Center Office in each city. The research then analysed if these socio-economic factors triggered or contributed the adoption or implementation of the CCP projects in each city.
7. Practice diffusion to other cities

The states of practice diffusion to other cities from the studied cities were clarified, including the cities that adopted the practice and the implementation status of the practice. Its diffusion mechanism such as domestic / international networks, roles of NGOs was also identified.

1.4. Schedule

In order to accomplish the objectives, the project organized the following activities as described in Table 1.

Table 1.1 Schedule of the Project

No	Activities	Time
a.	Contract Signing	23 rd June 2008
b.	Submission of the work plan	15 th July 2008
c.	First field survey in Yogyakarta and Denpasar	End July – End August 2008
d.	Submission of the first field report	15 th September
e.	Second field survey in Surabaya	Mid Sept – End September 2008
f.	Submission of the second field report	6 th October
g.	Submission of the final report	31 st October

Chapter 2

Cities Profile

2.1. Yogyakarta

1. General Description

Yogyakarta City, the capital of DIY Province, has long known as the City of Struggle, City of Students, City of Culture, and City of Tourism. If Yogyakarta city is developed in accordance to the call names and well managed, it will have positive impact on the community welfare. Furthermore, Yogyakarta is a city that has various arts and cultures which are still alive in its society. This advantage has encouraged tourist to visit Yogyakarta. The development of tourism sector in Yogyakarta city shall put the cultural-based tourism concept in the first place since Yogyakarta has a great potential of culture. In addition, tourism object potentials, adequate facilities and infrastructure, and its strategic geographical position are valuable assets which, if they are well managed, will support the existence of Yogyakarta City as the prominent tourism destination.

Developmental vision of Yogyakarta City for 2007-2011, as mentioned in the 2007-2011 Regional Mid-term Development Plan (RPJMD) of Yogyakarta City, states that Yogyakarta City shall play role as the city of high quality education, city of culture-based tourism and city of environment-concept service centre. In tourism sector, furthermore, the vision has determined the development target for 2007-2011, i.e. Yogyakarta as the city of culture-based tourism with the support of various tourism objects and attractiveness.

The area of Yogyakarta City is 32.5 km² or about 1.02% of the area of DIY Province. Geographically, Yogyakarta City lies between 110°24'19" – 110°28'53" East Longitude and 07°49'26" – 07°15'24" South Latitude. Administratively, Yogyakarta City is bordered by Sleman Regency to the north, Sleman and Bantul Regency to the east, Bantul Regency to the south and Bantul and Sleman Regency to the west (see Figure 2.1).

The population of Yogyakarta City in 2007 was about 528,789 persons (see Table Annex 3.2), with density of 16,270 persons/km² (Table Annex 3.3) and population growth of 1.1%/year. Gondokusuman is the district with the most number of populations, amounting 76,302 and Pakualaman is the district with the least number of population, amounting 14,923. In terms of population density, Ngampilan district has the highest level of population density, 28,973 persons/km², and Umbulharjo district has the lowest level of population density, 9,358 persons/km².

2. Economic Condition

a. Regional Gross Domestic Product (GDP)

The regional GDP which is based on the current price in 2006 amounted IDR 7.76 trillion (791.4 Million USD) and income per capita amounting USD 1,787 annually. Compared to DIY Province Regional GDP in 2006, the Yogyakarta City GDP amounted for quarter of the Provincial GDP and amounted for 0.3% of National GDP. It is seen, in accordance to Table 2.1, that sub-sectors of hotel, restaurant and service play role as the dominant contributor for the regional economy since

Yogyakarta is one of the biggest tourism destination in Indonesia. From year to year, the contribution of these sectors continuously increase compared to other sectors.

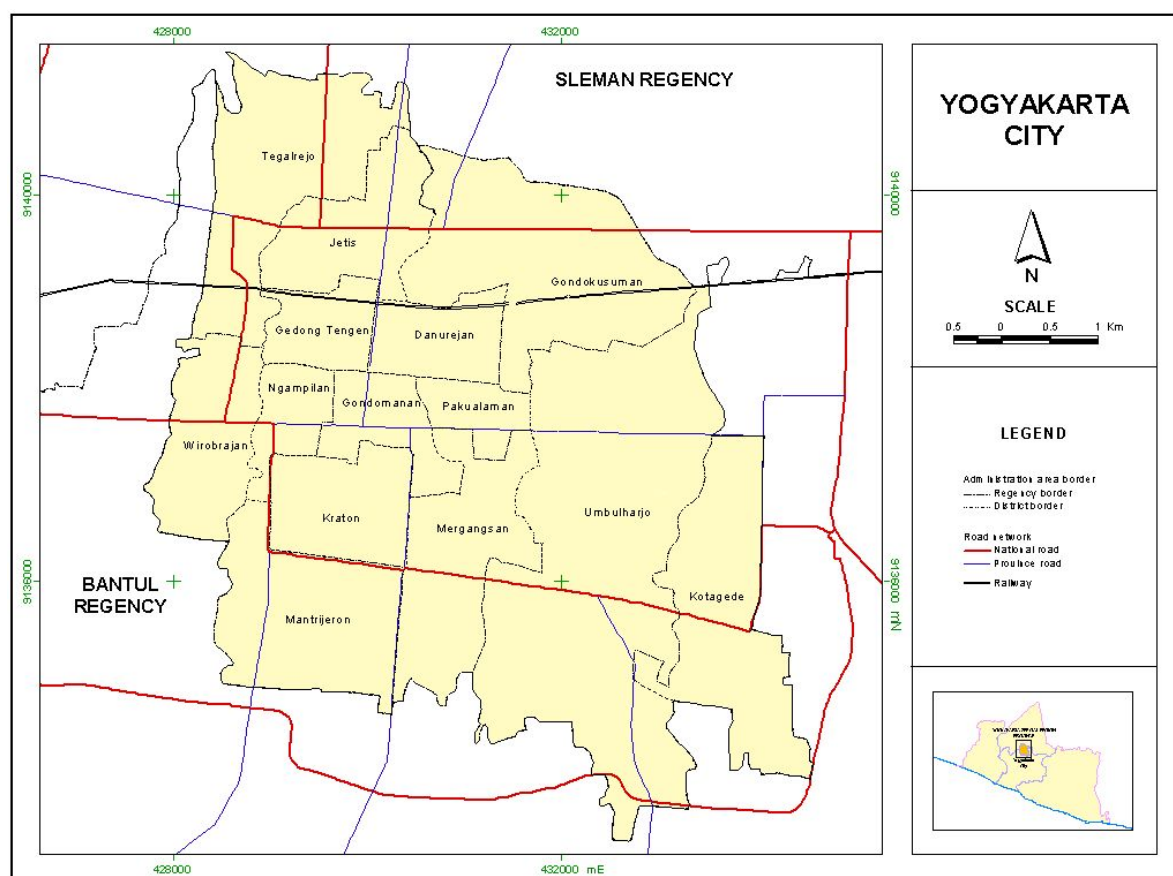


Figure 2.1 Administrative Map of Yogyakarta City

Table 2.1 Regional GDP of Yogyakarta City by Industrial Origin at Current Prices (Million Rp)

Industrial Origin	Year						
	2000	2001	2002	2003	2004*	2005**	2006***
Agriculture	34,570	35,712	39,865	34,134	29,792	28,951	28,721
Mining and Quarrying	747	689	608	509	492	366	451
Manufacturing Industries	465,069	494,807	578,492	658,973	678,292	750,690	822,702
Electricity, Gas and Water Supply	40,269	51,870	72,003	92,288	103,379	121,093	133,537
Construction	208,012	232,334	269,700	321,580	376,541	449,611	573,425
Trade Hotel and Restaurant	862,621	961,513	1,068,549	624,750	1,337,465	1,568,940	1,786,890
Transportation and Communication	550,291	618,285	810,174	904,168	1,041,131	1,213,823	1,391,144
Finance, rent of building and business service	510,331	561,742	671,779	757,462	903,571	1,029,640	1,107,768
Services	837,946	1,016,406	1,120,802	1,237,994	1,404,689	1,606,975	1,920,294
Total Yogyakarta	3,509,856	3,973,358	4,631,972	4,631,858	5,875,352	6,770,089	7,764,932
Total DIY Province	12,789,312	14,944,611	16,971,846	19,648,763	21,941,886	25,265,865	29,193,797
Total Indonesia (Billion Rp)	1,264,919	1,449,398	1,821,833	2,013,674	2,273,141	2,729,708	3,338,195

Note:

2007 data is not available yet

*Preliminary figures

**Very preliminary figures

***Very-very preliminary figures

Source : Yogyakarta in Figures, 2002-2006

b. Economic Growth

Based on the existing data, from the production point of view, the growth of economy in Yogyakarta City is mainly resulted from the improvement of business sectors related to service, i.e. trading, hotel and restaurant sector; finance, rent and business service sector; services sector; and transportation and communication sector. If it is seen more precisely, the four sectors are attracted/affected by two locomotives, i.e. tourism and education. From the consumption point of view, the economy of Yogyakarta City is supported by the increase of community consumption. Table 2.2 presents the economic growth in 2003-2006.

Table 2.2 Economic Growth by Constant Price in Yogyakarta City (%)

No	Sector	2003	2004	2005	2006
1.	Agriculture	-5.64	-13.96	-11.79	-4.66
2.	Mining and Quarrying	-24.13	-9.95	-34.77	-8.68
3.	Manufacturing Industries	4.49	1.56	2.38	0.25
4.	Electricity, Gas and Water Supply	6.94	4.56	5.30	-1.85
5.	Construction	7.88	11.20	7.14	13.28
6.	Trade, Hotel and Restaurant	6.08	4.93	6.24	5.11
7.	Transportation and Communication	8.14	13.93	5.20	5.20
8.	Finance, rent of building and business service	2.90	2.71	7.50	-1.84
9.	Services	1.67	0.90	2.46	5.80
Yogyakarta City		4.76	5.05	4.88	4.13
DIY Province		4.5	3.1	5.4	4.9
Indonesia		4.8	5.0	5.7	5.5

Source : Yogyakarta City in Figures 2007

The growth of economy in 2005 is smaller than that of 2004 because the government had issued a policy to increase the fuel of price by twice. The increase of fuel price had resulted in the increase of production cost. In order to decrease the production cost, the business sectors had decrease their business volume. However, the evenly improvement of various sectors had encouraged the growth of economy. The finance, rent and business service sectors had increased by 7.5%, the construction sector had increased by 7.14%, trade, hotel and restaurant had increased by 6.25%, and transportation and communication sector had increased by 5.2%. The same as the previous two years, two sectors, agriculture and mining and quarrying, had experienced negative growth. The mining and quarrying sector had decreased by 34.77% while agriculture sector had decreased by 11.79%.

In 2006, the growth of economy had decreased by 4.13%. The main reason was that earthquake disaster happened on 27 May 2006. The disaster had resulted in negative growth on four business sectors. Mining and quarrying sector decreased by 8.68%, agriculture sector decrease by 4.66%, electricity, gas and water supply decreased by 1.85% and finance, rent and business services sector decreased by 1.84%. In line with the rehabilitation and reconstruction phase, the growth of economy in 2006 had been encouraged by the increase on construction, services, transportation and communication, and trade, hotel and restaurant sectors amounted 13.28%, 5.80%, 5.20% and 5.11%, respectively. In terms of demand, based on the 2006 Economic Report of Yogyakarta Special Region established by Bank of Indonesia, Yogyakarta Branch, household consumption, establishment of gross fixed capital (investment), and value of inter-region/international trading

had contributed to the growth of economy in Yogyakarta City for the last three years. The slowing down of economic growth in 2006 is resulted from the earthquake disaster. The earthquake had destroyed most of production tools. This had forced business actors to get raw materials or intermediate/partly finished goods from other region outside DIY Province that subsequently they conducted finishing. The earthquake had decreased the number of tourists visiting Yogyakarta City that subsequently decreased the community consumption and volume of inter-region/international trading.

c. Structure of Regional Economy

Based on the above data, the economic structure of Yogyakarta City (Table 2.3) is business sector related to services. The primary superior sector is Trade, Hotel and Restaurant that the contribution to Regional GDP for four years amounts for 25%. The next superior sector is services that contribute 21% to the GDP for four years. The next is Transportation and Communication sector that contributes 18% to GDP for four years. The last is Finance, Rent and Business Services sector that contributes 14% to the Regional GDP during the last four years. The industrial sector, i.e. Manufacture Industry, is on the fifth rank of superior sectors, contributing 11%-12% to the Regional GDP during the last four years.

Table 2.3 Economic Structure of Yogyakarta City (%)

Business Sector	Year			
	2003	2004	2005	2006
1. Agriculture	0.7	0.6	0.5	0.5
2. Mining and Quarrying	0.0	0.0	0.0	0.0
3. Manufacturing Industries	12.5	12.1	11.8	11.3
4. Electricity, Gas and Water Supply	1.4	1.4	1.4	1.3
5. Construction	6.5	6.9	7.0	7.6
6. Trade, Hotel and Restaurant	25.2	25.2	25.5	25.8
7. Transportation and Communication	16.7	18.2	18.2	18.4
8. Finance, rent of building and business service	14.3	14.0	14.3	13.5
9. Services	22.7	21.8	21.3	21.7
Total	100.0	100.0	100.0	100.0

Source : Decree of Yogyakarta Mayor No 617 / KEP /2007

2.2. Denpasar

1. General Description

Denpasar city, the capital of Bali Province, represents the economic centre of Bali island where there is a meeting between the Bali traditional culture and the west culture. At the beginning, Denpasar represents the centre of Badung Kingdom, finally, it still also becomes the centre of government of Badung Regency, and in fact starting from 1958 Denpasar also becomes the centre government of Bali province. The city with income per capita around Rp 23.4 million per year has a strategic role as a centre for governmental and economic activities control such as trading, banking, services, and many innovative productions. Beside that, it is also as concentration place of social services facilities, in regional services scale, such as education, sanitary, sport, etc. This condition brings about an impact of the high population of Denpasar City than other regencies in Bali Province.

Developmental vision of Denpasar City for 2005-2010, as mentioned in the 2005-2010 Regional Mid-term Development Plan (RPJMD) of Denpasar City, states that Denpasar City shall play role as the culture-concept city with a harmony in sustainable balance.

The area of Denpasar City is 127.78 km² or about 2.2% of the area of Bali Province. Geographically, Denpasar City lies between 08°35'31" – 08°44'49" South Latitude and 115°10'23" – 115°16'27" East Longitude. Administratively, Denpasar City is bordered by Badung Regency to the north, Gianyar Regency to the east, Badung Strait to the south, and Badung Regency to the west (Figure 2.2).

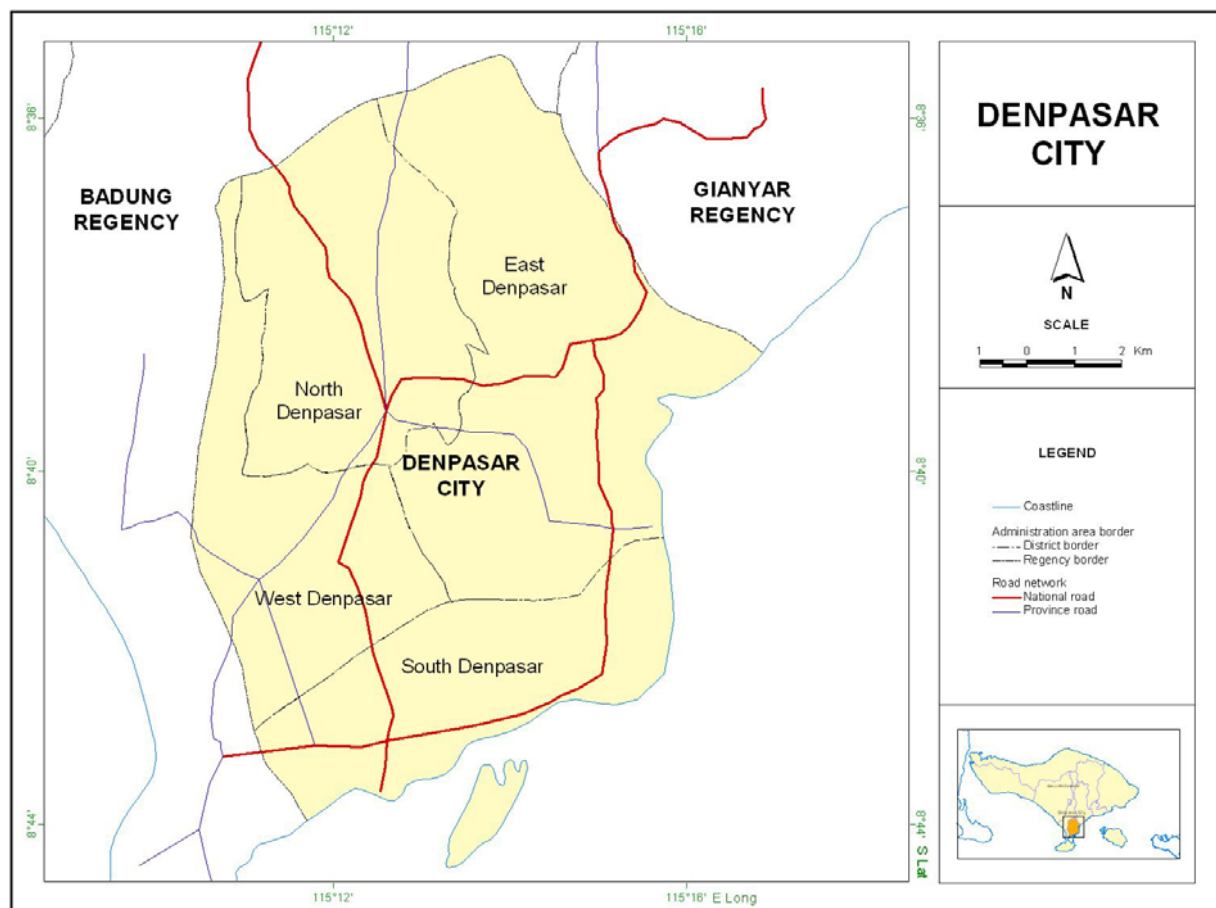


Figure 2. 2 Administrative Map of Denpasar City

The population of Denpasar City in 2006 was about 583,600 persons (see Table Annex 4.2), with density of 3,697 persons/km² (Table Annex 4.3) and population growth of 3.01%/year. West Denpasar is the district with the most number of populations, i.e. 168,580 persons, followed by South Denpasar with 167,358 persons, North Denpasar with 137,390 persons, and East Denpasar as the least numbers of populations with 110,272 persons. In terms of population density, West Denpasar District has the highest level of population density, 7,007 persons/km² and South Denpasar District has the lowest level of population density, 3,348 persons/km².

2. Economic Condition

a. Regional Gross Domestic Product (GDP)

The regional GDP based on current price in 2006 amounted for Rp 7 trillion (711 Million USD) and income per capita amounting 1218 USD annually. Compared to Bali province Regional GDP in 2006, the Denpasar GDP is one fifth (1/5) of the province GDP and 0.23% of national GDP. Similar to Yogyakarta, hotel and restaurant subsector play a role as a dominant contributor for regional economy since Denpasar is also the biggest tourism areas in Indonesia (Table 2.4).

Table 2.4 Regional GDP of Denpasar City by Industrial Origin at Current Prices (Million IDR)

Industrial Origin	Year						
	2000	2001	2002	2003	2004*	2005**	2006***
Agriculture	265,994	305,387	340,717	374,778	413,088	468,265	515,066
Mining and Quarrying	220	249	281	295	309	340	379
Manufacturing Industries	383,960	445,701	508,144	560,340	634,540	715,780	790,593
Electricity, Gas and Water Supply	108,562	126,775	146,083	168,314	194,224	235,556	276,472
Construction	104,728	118,971	136,066	155,585	179,333	217,109	259,185
Trade Hotel and Restaurant	400,230	1,250,963	1,438,983	1,640,424	1,893,875	2,222,458	2,912,533
Transportation and Communication	426,014	497,358	565,004	630,554	709,869	833,201	920,342
Finance, rent of building and business service	491,157	55,315	627,239	692,150	769,784	914,292	1,046,420
Services	316,013	369,767	421,554	497,568	581,811	688,926	779,480
Total Denpasar	3,196,884	3,667,427	4,194,075	4,720,100	5,376,838	6,295,930	7,000,481
Total Bali Province	NA	NA	23,856,437	26,168,942	25,986,595	30,995,660	37,418,484
Total Indonesia (Billion Rp)	1,264,919	1,449,398	1,821,833	2,013,674	2,273,141.5	2,729,708	3,338,195

Note:

2007 data is not available yet

*Preliminary figures

**Very preliminary figures

***Very-very preliminary figures

Source : Denpasar City in Figures, 2002-2006

b. Economic Growth

Based on the existing data, from the production side, economic development of Denpasar City especially results from business sectors related to service, i.e. trade, hotel and restaurant sector; finance, rent and business service sector; services sector; and transportation and communication sector. If it is seen more precisely, the four sectors are attracted/affected by tourism sector. The number of economic growth for 2003-2006 can be seen in Table 2.5.

As the impact of Bali Bombing Tragedy 2002, the economy of Denpasar City has decreased drastically. The decreasing number of tourists visiting Bali has a great impact on the decrease of hotel occupancy level in Denpasar City and this has very big impact on the economic growth of Denpasar city. However, slowly since 2003 the tourists visiting level began to increase and it raised the economic growth. And if it is not early anticipated, it will impact again to the decrease of tourist visit, included hotel occupancy level that will influence the economic growth.

Table 2.5 Economic Growth by Constant Price in Denpasar City (%)

No	Sector	2003	2004	2005	2006
1.	Agriculture	4.11	4.67	3.87	5.47
2.	Mining and Quarrying	0.73	0.8	0.32	0.28
3.	Manufacturing Industries	4.82	5.57	4.7	4.61
4.	Electricity, Gas and Water Supply	7.5	7.26	7.21	8.05
5.	Construction	6.95	6.27	6.97	6.73
6.	Trade Hotel and Restaurant	5.79	6.47	6.73	5.23
7.	Transportation and Communication	4.85	5.65	5.53	5.93
8.	Finance, rent of building and business service	3.24	3.15	4.84	5.15
9.	Services	7.53	8.19	8.47	9.53
	Denpasar City	4.88	5.83	6.05	5.88
	Bali Province	3.6	4.6	5.6	5.3
	Indonesia	4.8	5.0	5.7	5.5

Source: Denpasar City in Figures, 2007

c. Structure of Regional Economy

The contribution of agriculture sector to the GRDP of Denpasar City was about 7.36% in 2006, while in Bali Province in the same year was about 19.96%. The difference characterized that Denpasar City had a strong characteristic to be a metropolitan city while Bali Province was still in its journey to modern region. Furthermore, construction sector had 3.70% contribution to the GRDP of Denpasar City and 4.28% to Bali Province. Quarrying sector gave 0.01% contribution and 0.6% to Denpasar City and Bali Province, respectively. The contribution of service sector to the Denpasar economy was 11.13% and 16.22% to Bali in year 2006 (Table 2.7).

Table 2.6 Economic Structure of Denpasar City (%)

Sector	Year			
	2005		2006	
	Denpasar	Bali	Denpasar	Bali
1. Agriculture	7.44	20.9	7.36	19.9
2. Mining and Quarrying	0.01	0.7	0.6	0.8
3. Manufacturing Industries	11.37	5.9	11.29	8.7
4. Electricity, Gas and Water Supply	3.74	1.9	3.95	1.9
5. Construction	3.45	4.2	3.70	4.3
6. Trade Hotel and Restaurant	35.3	30.3	34.46	28.9
7. Transportation and Communication	13.23	12.2	13.15	11.9
8. Finance, rent of building and business service	14.52	7.3	14.95	7.5
9. Services	10.94	16.7	11.13	16.2
TOTAL	100.0	100.0	100.0	100.0

Source: Denpasar City in Figures, 2007

2.3. Surabaya

1. General Description

Surabaya City, the capital of East Java Province, is the second biggest city in Indonesia after Jakarta. With its metropolitan population that almost reaches 3 millions people, Surabaya is the centre of business, trading, industries, and education in the eastern area of Java Island and its surrounding. It is

well-known as the City of Heroes, because of its historical background back in the Indonesian independence struggle era. Most of its inhabitants work as employees and traders.

The development of Surabaya cannot be separated from its characteristic as the city of services and trading. The demand of globalization era and its citizens and the consideration on its geography and geostrategy position require various innovations in conducting the governance and development. The future challenge for Surabaya is very hard and complex, starting from transportation, flood, population, employment, informal sector, investment, various infrastructures, and the less quality of regulation and bureaucracy supports, and the culture of the community that is encouraged to be able to make Surabaya to be in the standard of world big cities.

The local autonomy with its decentralization authority brings good practices (innovation of government implementing) towards economy development, public services, as well as politics and law development to achieve its better and constructive direction towards better welfare of city community. Promoting the economy growth and raising the life-quality through fulfilling the community basic rights are the strategic agendas that in order to gain those supports from the infrastructure development acceleration, assets management and development as the alternative financing, bureaucracy reformation, as well as the constructive and reliable monitoring system are needed. These agendas become the important part to achieve 2006-2010 Surabaya City development vision, that is Smart and Caring Surabaya.

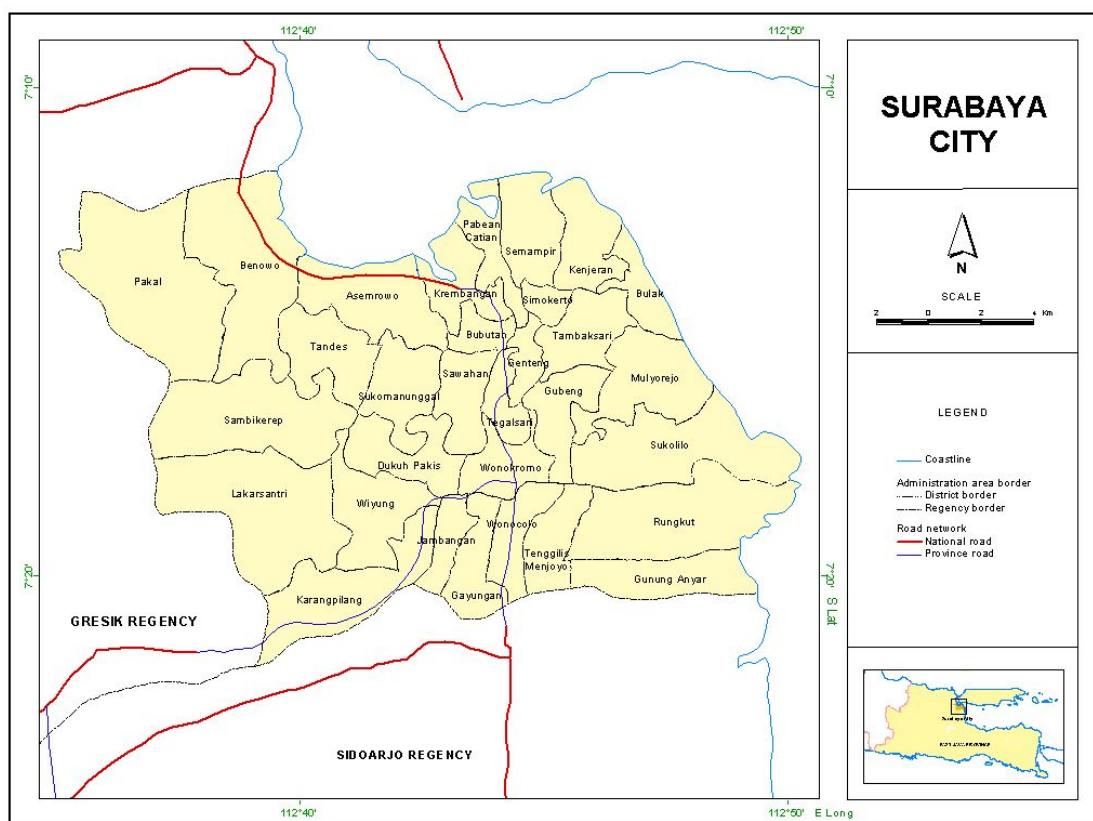


Figure 2.3 Administrative Map of Surabaya City

The area of Surabaya City is around 326.37 km² or 0.70% from total East Java Province. Its population in 2007 was about 2,861,928 persons (see Table Annex 5.2), with density of 8,769 persons/km² and population growth of 1.2%/year. Geographically, Surabaya City lies between 07° 21' South Latitude and

112° 36' - 112° 54' East Longitude. Administratively, as seen in Figure 2.3, Surabaya City is bordered by Madura Strait (North and East), Sidoarjo Regency, (South), and Gresik Regency (West).

2. Economic Condition

Surabaya City is one of main trading gates in East Indonesia area. With all its potencies, facilities, and its great geography, Surabaya city has high economic potentials. The primary, secondary, and tertiary sectors of this city are very supportive in strengthening Surabaya to be the city of trading and economy.

Along with the existing private sectors, Surabaya City has prepared itself to be an international trading city. The development of buildings and modern economic facilities is its preparation as the part of the transparent and competitive international economic activities.

a. Regional Gross Domestic Product (GDP)

The regional GDP based on the current price in 2005 is Rp 91.19 Trillion (9.17 trillion USD) and income per capita approximately 3400 USD annually. Compared to East Java province Regional GDP in 2005, the Surabaya GDP is 23% of the province GDP and 3% of national GDP. Table 2.7 describes that manufacturing and hotel and restaurant industries are the dominant contributors to the regional economy since Surabaya City is one of the industrial areas in Indonesia.

Table 2.7 Regional GDP of Surabaya City by Industrial Origin at Current Prices (Million Rp)

Industrial Origin	Year					
	2000	2001	2002	2003	2004	2005
Agriculture	88,812	98,990	NA	89,930	112,048	122,937
Mining and Quarrying	2,527	25,852	NA	8,277	9,925	9,318
Manufacturing Industries	14,081,654	16,229,452	NA	17,294,288	25,047,776	29,321,166
Electricity, Gas and Water Supply	1019,226	1,235,153	NA	1,322,460	2,032,623	2,456,972
Construction	4,013,328	4,498,356	NA	4,444,304	6,036,190	7,407,298
Trade Hotel and Restaurant	13,337,159	15,338,042	NA	19,499,744	27,346,400	32,475,894
Transportation and Communication	4,858,254	4,688,635	NA	5,586,785	6,873,703	8,371,416
Finance, rent of building and business service	2,523,785	2,912,895	NA	3,685,477	5,026,199	5,577,531
Services	2,059,213	2,322,404	NA	4,089,458	5,108,929	5,447,901
Total Surabaya	41,983,961	47,349,785	NA	56,020,728	77,593,797	91,190,435
Total East Java Province	NA	NA	267,157,716	300,609,857	341,065,251	403,392,350
Total Indonesia (Billion Rupiah)	1,264,919	1,449,398	1,821,833	2,013,674	2,273,141	2,729,708

Notes :

2006-2007 data is not available

Source : Surabaya in Figures, 2001,2002,2005,2006

b. Economic Growth

Based on the data from BPS Surabaya, the economy development of Surabaya City in 2002-2005 shows a positive growth number, amounting 3.80% (2002), 4.22% (2003), 5.78% (2004) and 5.67% (2005), as explained in Table 2.8.

Table 2. 8 Economic Growth by Constant Price in Surabaya City

No	Sector	2002	2003	2004	2005
1.	Agriculture	-2.24	-5.23	-0.41	-1.67
2.	Mining and Quarrying	-2.85	0.42	2.16	-14.84
3.	Manufacturing Industries	0.53	1.77	2.63	3.47
4.	Electricity, Gas and Water Supply	6.42	9.39	7.55	3.21
5.	Construction	2.10	3.97	6.51	5.96
6.	Trade, Hotel and Restaurant	6.47	6.38	8.34	7.41
7.	Transportation and Communication	7.46	5.98	6.4	8.57
8.	Finance, rent of building and business service	5.37	2.44	8.81	6.02
9.	Services	2.03	2.99	2.96	3.05
	Surabaya City	3.81	4.23	5.78	5.67
	East Java Province		3.6	4.6	5.8
	Indonesia	NA	4.8	5.0	5.7

Sources :Surabaya City in Figures, 2006 and Bappeko Surabaya (2005), in the Study on the Development of Gross Regional Domestic Product in Surabaya City, 2004

Generally, the economy sectors of Surabaya City (2002-2005) is averagely dominated by tertiary sector (54.37%), followed by secondary sector (45.44%) and the last is primary sector (0.19%). The tertiary sector is gained from (i) Hotel and Restaurant Trading Sector (34.76 %), (ii) transportation and communication sector (8.98%), (iii) Banking and finance institution sector (6.17%), and (iv) services sector (4.46%).

c. Structure of Regional Economy

Surabaya economical structure is the business field sector related to services (Table 2.9). The first dominant sector is trading, hotel and restaurant, which is in 2 years give contribution to GDP about 35%. The next dominant sector is manufacturing industries, which contribute 32 % to GDP in two years. The next sector is transportation and communication that contributes 8-9% for the last four years. The last sector is construction, contributing 7-8% for the last four years.

Table 2. 9 Economic Structure of Surabaya City (%)

Industrial Origin	Year			
	2004		2005	
	Surabaya	East Java	Surabaya	East Java
1. Agriculture	0.14	17.6	0.13	17.2
2. Mining/Quarrying	0.01	1.9	0.01	2.0
3. Manufacturing Industry	32.28	29.6	32.15	30.0
4. Electricity. Gas. And Water	2.62	0.2	2.69	1.9
5. Construction	7.78	0.4	8.12	3.6
6. Trading	35.24	26.7	35.61	27.2
7. Transportation and Communication	8.86	5.5	9.18	5.5
8. Finance. Rent Building. and Business Service	6.48	4.4	6.12	4.5
9. Services	6.58	8.3	5.97	8.0
Total	100.0	100.0	100.0	100.0

Source :Surabaya City in Figures, 2006

Chapter 3

Stages of Policy Process

3.1. Regional Mid-Term Development Plan

In performing duties and conducting activities, The City Government refers to the city regional planning document commonly referred as RPJMD (Regional Mid-Term Development Plan). The City's RPJMD, as the urban development planning document for 5 (five) years period, is established through The Decree of City Mayor, is aimed to give direction as well as reference for all development actors in the city (government, community and business society) in administering government, managing development and service for the community.

The RPJMD is the detail description of the National Mid-Term Development Plan, Provincial Mid-Term Development Plan and the city RPJPD (Regional Long-Term Development Plan) for 2005-2025 period that is established through the application of participative planning which involves all stakeholders. The implementation of city RPJMD will be described in the Renstra SKPD (Regional Government Task Unit Strategic Plan) and Renja SKPD (Regional Apparatus Task Unit Work Plan) as well as in the General Policy of Annual Regional Budget Plan that subsequently will be stated in Regional Budget Plan (APBD).

3.2. Process of Establishing City RPJMD

The establishment of RPJMD is conducted through the following steps (Figure 3.1):

- a. Preparing the draft of RPJMD in order to acquire initial description of vision and mission of the regional leaders and the regional financial policy, regional development strategy, general policy and the establishment of SKPD programme, across SKPD, work plan in the form of regulation framework and indicative financing framework. The programme ideas may come from the result of discussions in governmental offices or institutions that are based on the result of field observation and/or community aspiration.
- b. Organizing Mid-Term MUSRENBANGDA (Regional Development Planning Conference) in order to get input/feedback and commitment from all related stakeholders regarding the RPJMD draft.

The MUSRENBANGDA is facilitated by LPMK (Institution for Village Community Empowerment) which has association from district to national level. The LPMK association shall periodically holds meetings. During the meeting, community-based programmes successfully conducted in certain region will be presented. It is expected that the programmes can be implemented in other regions.

- c. Develop the RPJMD final draft based on the result of Mid-Term MUSRENBANGDA. It will become the main input for the completion of RPJMD draft.
- d. Establishment of Mayor Decree regarding RPJMD together with its legislation in the regional gazette.

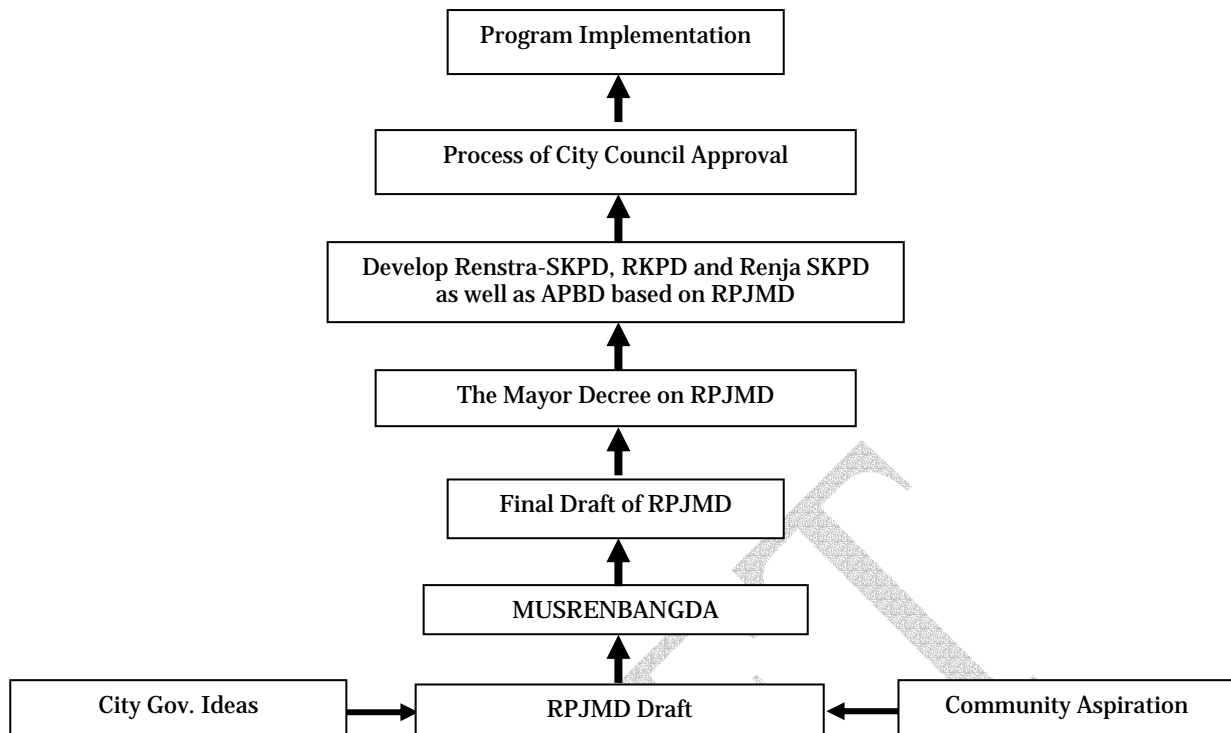


Figure 3.1 Process of Program Adoption in Indonesian Cities

After RPJMD has been established, it must be described in the Renstra-SKPD, RKPD (Regional Government Work Plan), and Renja-SKPD as well as in the General Policy of Annual Budget that subsequently will be stated in the Regional Budget Plan. The draft of Regional Budget subsequently will be discussed with the City Council to be approved. It is necessary since the City Council, as the representative of the community, will be able to listen to the explanation of the city government; therefore, it is expected that the implementation of the programme will give the community benefits. In addition, the City Council will be able to look at the budget proposed by the municipal government and approve the proposed budget if it has been appropriate.

3.3. Development Challenges of the City

1. Economic Development Challenges

The decentralization process – which started effectively in the year of 2000 has put forward opportunities and challenges for City mayors in Indonesia. There are opportunities of managing its own programs so the development needs can be addressed properly. On the other hand, it also presents a challenge for the city to be more transparent and accountable to the people. The city should also be creative in promoting the city investment and generate revenue, prudently manage its financial matters by investing its public money into the most cost-effective public expenditure and projects.

2. Social Development Challenges

The informal sector is not only shaping and dominating the city's economy but is also posing a challenge for providing their livelihood. For those who can not survive in this urban struggle, they often end up as an urban poor – a community often live in an urban slum without adequate infrastructure such as clean water, proper sanitation, electricity and affordable transportation facilities.

On the air quality related issue – increasing congestion, particularly in urban core and the main corridors have created a social stress and reckless driving behavior. Such situation is destructing the social cohesion and the cultural bound among us. The social capital we are very proud of is being threatened by the increasing uncontrolled urbanization – a problem that is not only dependent on the urban development but is also related with larger development policies.

3. Environment Challenges

As perhaps typical for many cities around the world, the distinct environmental problems associated with the city development are air pollution, solid waste and waste-water management.

While local industry is still dominating the air pollution balance – the mobile sources or transport sector has grown at the highest speed – even during the economic crisis. This is an interesting phenomenon because the number of vehicles and the vehicle-kilometers maintains its high growth despite the economic down-turn during the crisis.

According to emission audit conducted by ICLEI during CCP Program in 2001 -2005, the highest contributor of CO₂ emission in Yogyakarta is from residential, 78% of total emission (i.e electricity) and transportation at second place (22%). While in Denpasar the highest contribution is transportation (56%) and the second place is residential (18%). Different from the two previous cities, in Surabaya the highest contribution is residential (53%), industry (25%) and transportation is at the third place (15%).

Recent survey in several streets in Yogyakarta, Denpasar and Surabaya by Environmental Offices (see Table Annex 3.6, 4.6 and Figure Annex 5.1 – 5.2) indicated that there are large variations of air quality in those cities. Meaning, that there is un-even development in the city. Some parts of the city are having an intensive development activity while others there are less intense.

4. Institutional Development Challenges

The city government is also experiencing a reform in the governance with the full introduction of decentralization law. Decentralization means a higher responsibility for local government to manage local development – from infrastructure to resource mobilization. For such a small city like Yogyakarta, which relies on small and medium business as well as informal sector, resource mobilization is an intricate issue to balance the tax-related revenue and promoting small scale investment. Decentralization requires a planning and implementation capacity of the local agencies, including environmental office of the city government.

3.4. Regional Development Policy and Programme

Urban development in many countries in the developing Asia and the Pacific region faces many challenges confronting social - economic development issues and environmental issues. Those involved in the development business know from the difficulties in it.

Promoting programs, particularly environmental programs often involve a major effort in education and campaign which is a long or perhaps a very long and never ending process. In the political reality however, this is a very difficult choice. Political leaders are always under pressure of delivering changes and improvement – especially to their constituents.

In the decentralized system currently experienced by the cities in Indonesia – the local government should seek ways to integrate the above concerns. The city administration has to ensure the benefit of business community and public-at-large, not only for the present but also for future generation. Yogyakarta, Denpasar as a major cultural tourism destination and Surabaya as industrial cities should also be able to maintain the harmony between culture, environment and economic development.

Responding to the above challenges and to achieve city's vision, The City Government of Yogyakarta, Denpasar and Surabaya have formulated missions and programs as described below.

1. Yogyakarta

City development vision can be accomplished through 9 (nine) development mission as follows:

- a. Maintaining the predicate of Yogyakarta City as the City of Education.
- b. Maintaining the predicate of Yogyakarta City as the City of Tourism, City of Culture and City of Struggle.
- c. Developing superior competitive power of Yogyakarta City in service sector.
- d. Developing Yogyakarta City into a comfortable and environmentally-friendly city
- e. Developing Yogyakarta City community which is civilized and has morality, ethics and culture.
- f. Developing Yogyakarta City which is good governance, clean government, justifiable, democratic and based on law
- g. Developing Yogyakarta City into a safe, orderly, united and peaceful city
- h. Realizing the development of quality facilities and infrastructures
- i. Developing Yogyakarta City into a healthy city

The above missions are further realized into programmes. Table Annex 3.7 provides the details of programmes in environment sector, while programme of Public Streetlight is included in the mission to realize the development of quality facilities and infrastructures.

2. Denpasar

The 2005-2010 Denpasar City development vision can be accomplished through 5 (five) development mission as follows:

- a. Developing the identity of Denpasar City community based on Bali culture.
- b. Empowering the community based on the Bali culture and local Wisdom.
- c. Creating good governance through Law Enforcement.
- d. Developing Public Services to improve the community welfare.
- e. Accelerating the economic growth and strengthening the Economy endurance through Community Economic System (*economic stability*).

In the effort to realise the fourth mission, Developing Public Services to improve the community welfare, City Government of Denpasar has determined development programmes as follows:

- a. Community Empowerment and Health Promotion Programme
- b. Sanitary Environment Programme
- c. Community Health Effort Programme
- d. Personal Health Effort Programme
- e. Programme on Prevention and Termination of Disease

- f. Community Nutrient Improvement Programme
- g. Health Resource Programme
- h. Health Supply and Medicine Programme
- i. Food and Medicine Monitoring Programme
- j. Indonesian Original Herb Programme
- k. Programme on Health Development Policy and Management
- l. Health Research and Development Programme

The Sanitary Environment Programme is aimed at establishing more sanitary environment through regional sanitary system development to stimulate health-concept cross-sectoral development. The main activities organised in the programme include:

- b. Provision of basic sanitation and clean water infrastructure;
- c. Maintenance and monitoring of environment quality;
- d. Environment pollution risk impact control; and
- e. Sanitary region development.

Based on the above description, Biogas project implemented in Ubung Village is an activity conducted in the effort to realise the Sanitary Environment Programme in Denpasar City. Funding allocation for each programme, unfortunately, is not specifically described in Denpasar City RPJMD.

3. Surabaya

The development mission as a concrete description to support the realization of 2006-2010 Surabaya City Development Vision are:

- a. Establishing the democratic, equitable, transparent and accountable government system;
- b. Improving the acceleration of the goods and services trading growth in regional and international level and integrating Greater Surabaya areas (Gresik, Bangkalan, Sidoarjo, Pasuruan) in an integrated spatial planning system supported by sufficient infrastructure, transportation system, and IT system;
- c. The facilities to develop cooperatives, investment on small and medium enterprises as well as establishing integration of small and medium enterprises owners with the bigger scale businessmen supported by a conducive situation;
- d. Improving the people welfare especially for poor people through the provision of basic needs facilities, management and training for street peddlers and other informal businessmen;
- e. Establishing clean, healthy, green, and comfortable city environment management;
- f. Improving the quality of education with nationalism awareness and global quality accessible to the citizens as well as preparing the young generation in anticipating future challenges;
- g. Improving the quality of health care services that is accessible for the citizens as well as improving the community's awareness on healthy environment and behaviour;
- h. Exploring and improving local cultural diversity as well as developing the community to live in harmony, tolerant, and respectable deeds;

To attain the second mission, the Surabaya City Government has designed the following development program: (1) Spatial Planning Program, (2) Road and bridge management program, (3) City Utilities Management Program, (4) Transportation Development Program (5) Technology Information Utilization Program.

In order to describe the Transportation Development Program, in 2001 Surabaya City Government with the assistance of the GTZ the German Technical Cooperation – Sustainable Urban Transport Project (SUTP), has developed a plan to device and implement policies toward environmentally, economically, and socially sustainable transport in the city. This will result in a range of local economic (enhanced investment eliminate), social (poverty reduction) and environmental (cleaner air) benefits, and will also contribute to a stabilization of “global“CO2 emissions from Surabaya’s transport sector.

One of the studies and pilot projects conducted in the City’s cooperation with GTZ is the use of CNG for the *mikrolet* (public car) transportation. In this pilot project, it is found out that by using CNG, the fuel can be saved and the program can reduce gas emission. To disseminate the advantage of CNG and to improve air quality in Surabaya City, Surabaya City Government has adopted the idea by implementing it to the city government vehicles.

Beside that, the Resolution of City Government of Surabaya signed by Mayor Surabaya to decrease CO2 emission on the 2002/2010 ICLEI – CCP program has also encourage the implementation of the CNG program. It is mentioned in that resolution that one of the programs to be conducted is the efficiency fuel usage for the city government’s vehicles by installing of gas fuel (CNG) converter kit in the vehicles owned by Surabaya City Government.

DRAFT

Chapter 4

Condition of Public Sector Funding

4.1. Regional Budget Plan (APBD)

APBD is the detail description of government work plan for one year period. APBD is a document describing the financial condition including revenue, expenditure and activity information. Shortly, APBD is a financial plan stating the amount of costs for the determined plans and how to collect adequate resources in order to finance the plan.

In the governmental administration, APBD functions as the mean of planning, controlling, fiscal policy, politics, coordination, performance assessment, motivation and public participation generation. APBD consists of three categories of post, i.e. regional revenue, regional expenditure and regional financing.

1. Regional Revenue

Regional revenue includes all earnings of regional rights for one year budget period that will become regional revenue. The regional revenue presents the nominal target of money to be collected through the implementation of work plan that explores the regional revenue resources. The regional revenue consists of PAD (Original Revenue), balancing fund and other legitimate revenues.

- a. Regional Original Revenue consists of:
 - i. Regional Tax, consisted of hotel tax, restaurant tax, entertainment tax, advertisement tax, Streetlight Tax, and parking.
 - ii. Regional retribution, consisted of Puskesmas (Public Health Centre), waste, KTP (Population ID Card), civil record, parking, terminal, PKB (Vehicle Tax), RPH (Animal Slaughter House), IMB (Building License), RSUD (Regional Hospital), and other licenses.
 - iii. Return of BUMD (Locally-owned Company), consisted of BPR Bank Pasar, PDAM (Drinking Water Company) and shares on BPD (Regional Development Bank) or Bank Pembangunan Daerah) in province.
 - iv. Other legitimate earnings of regional asset operation consisted of clearing service, interest earning, income from the third party and income from locally-owned goods sale.
- b. Balancing fund, that is the amount of fund gathered from the central and provincial government, consisted of:
 - i. Tax Sharing, i.e. PBB (Land and Building Tax), BPHTB (Right Acquisition Duty for Land and Building), PPH (Personal Income Tax), PKBBBNKB (Motor Vehicle Tax and Motor Vehicle Ownership Exchange Duty), PBBKB (Fuels Tax) *Pajak Bahan Bakar Kendaraan Bermotor*, PPPABT (Underground water usage tax), and Reserved PBB.

- ii. Non-Tax Sharing, consisted of SDH (Provincial Forestry Resources), Fishery Natural Resource, and Reserved Provincial Retribution
 - iii. DAU (General Allocation Fund), i.e. block grant fund in nature that the use is handed over to the region. It has been established that DAU shall amount for minimally 25% of domestic net income of the National Budget, in which 10% DAU is allocated for provincial government, and 90% DAU is allocated for the regency and municipal government.
 - iv. DAK (Special Allocation Fund), is a balancing fund of specific grant, specifically aimed for reforestation activity at the beginning. Since 2003 the central government has expanded the allocation of DAK so that includes health, education, and road infrastructure sector.
- c. Other legitimate revenues consisted of contingency fund, equalizer fund and emergency fund.

The revenue of Yogyakarta City in 2007 is approximately Rp 615.65 billion (or equal to 62.64 Million USD). Revenue structure of City Government of Yogyakarta for the last seven years (2001-2007) shows that PAD is arranging between 19-22% of the entire regional revenues components. Balancing Fund and other legitimate revenues collected from the central and provincial government amount for about 77-81% (see Figure 4.1 and Table Annex 3.8).

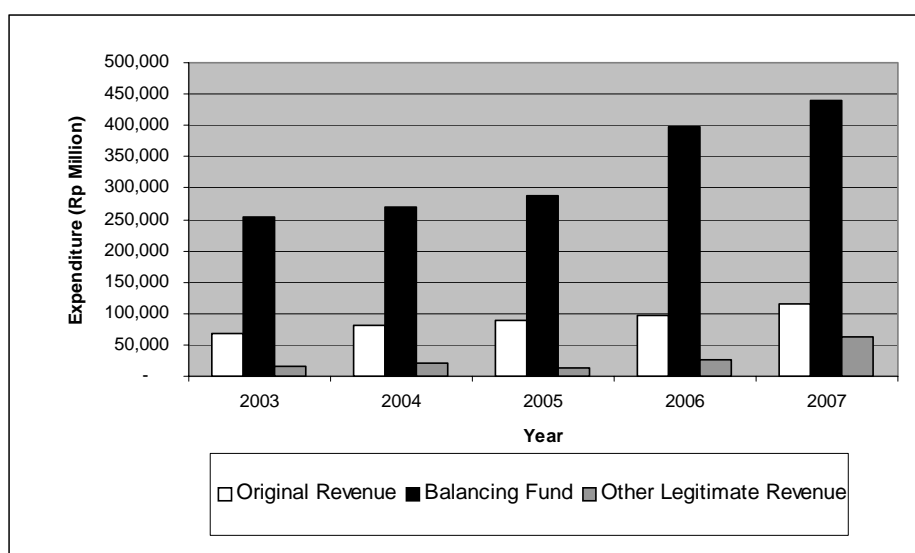


Figure 4.1 Revenues of City Government of Yogyakarta

The revenue of Denpasar City in 2007 is approximately Rp 549.5 billion (or equal to 55.74 Million USD). The Denpasar City Regional revenue structure for the last 7 (seven) years (2001-2007) shows that PAD is just on the average of more or less 22-31% of all components of regional revenue. The interesting thing is that the balancing fund raises rapidly from year to year, from 31% in 2001 to 71% in 2007 (see Figure 4.2 and Table Annex 4.7).

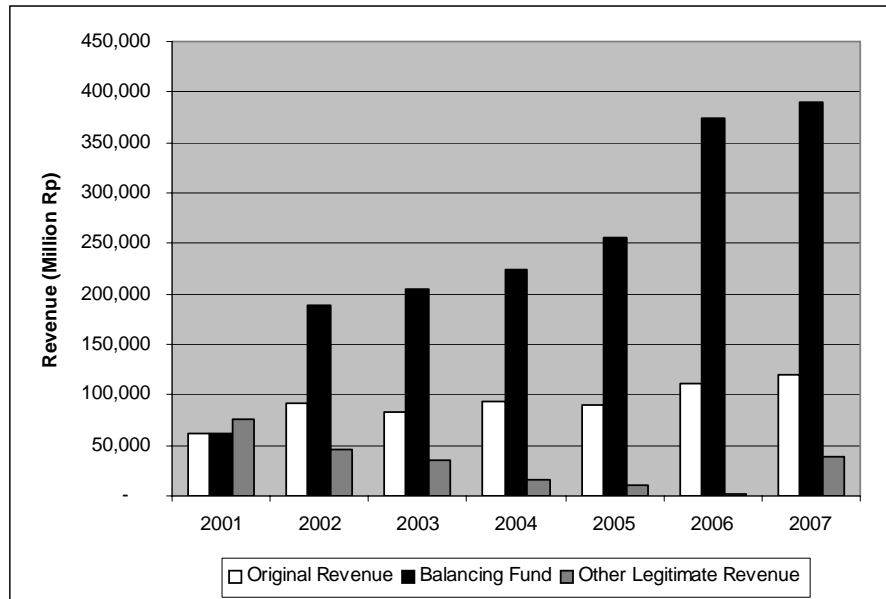


Figure 4.2 Revenues of City Government of Denpasar

Compare to Surabaya, its regional revenue in 2008 is Rp 2.06 billion (or equal to 206.7 Million USD). Surabaya City Government revenue structure for the last 8 years (2001-2008) shows that the PAD ranges around 27 – 31% of all the local revenue components. Meanwhile for Balancing Fund, the amount decreases from year to year, from 73% in 2001 to 57% in 2008. (Figure 4.3 and Table Annex 5.6).

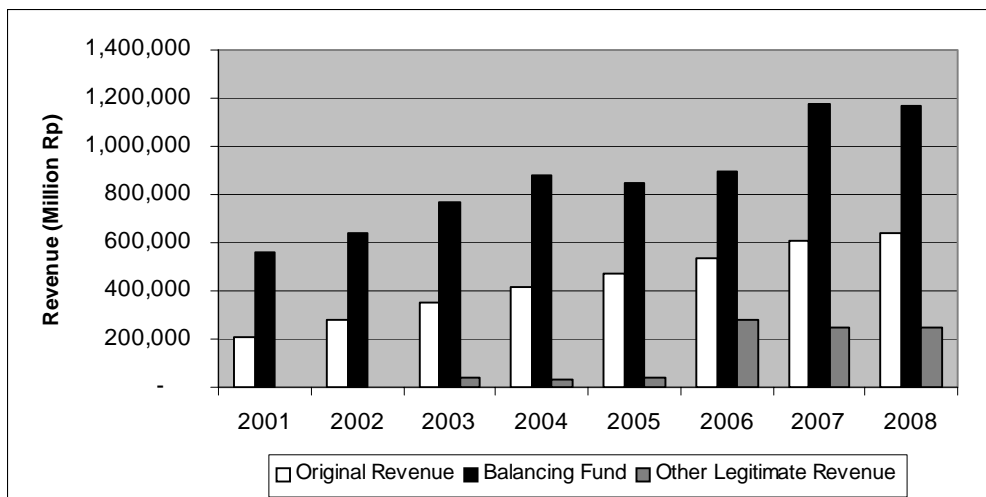


Figure 4.3 Revenues of City Government of Surabaya

If we look at the revenue structure of the three cities, Yogyakarta and Denpasar still highly depend on the funding from provincial and central government. Meanwhile, Surabaya shows that year by year the dependency to the funding from the central and provincial governments is decreasing.

2. Regional Expenditure

Regional expenditure includes all spending of regional duties within one year period that will become regional spending. The regional expenditure presents the highest ceiling of fund allocated for each activity covered in the work plan.

Expenditure can be categorized into two main groups, i.e. regional apparatus and public service expenditure. The regional apparatus expenditure share covers expenditure allocated or utilized for financing activities that their results, benefits and impacts are indirectly enjoyed by the society. Furthermore, the public service share covers all expenditure allocated or utilized to finance activities that their result, benefits and impacts are directly enjoyed by the society (public). The followings are details of the two expenditures.

a. Regional apparatus, consisted of:

- i. General administration (personnel/staff expenditure, goods and service, official travel, and maintenance)
- ii. Operational and maintenance expenditure (personnel/staff expenditure, goods and service, official travel, and maintenance)
- iii. Capital expenditure

b. Public service

- i. General administration (personnel/staff expenditure, goods and service, official travel, and maintenance)
- ii. Operational and maintenance expenditure (personnel/staff expenditure, goods and service, official travel, and maintenance)
- iii. Capital expenditure
- iv. Profit share and financial grant expenditure
- v. Incidental expenditure

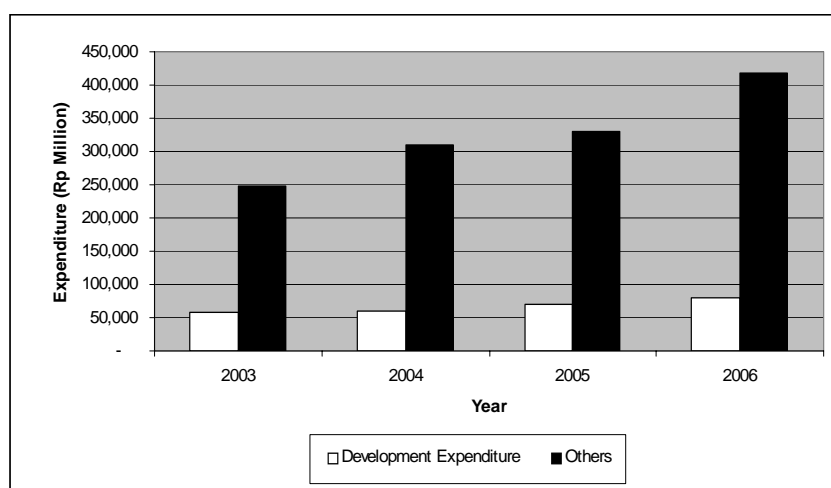


Figure 4.4 Regional Expenditure for Development in Yogyakarta City

In Yogyakarta, fund purely allocated for development (capital/developmental expenditure) is only 20% of total expenditure (Figure 4.4 and Table Annex 3.9) while in Denpasar the figure reaches 5-10%

(Figure 4.5 and Annex 4.8) and Surabaya 15-35% (Figure 4.6 and Table Annex 5.7). It shows the minimum amount of fund allocated for development in the cities in Indonesia¹.

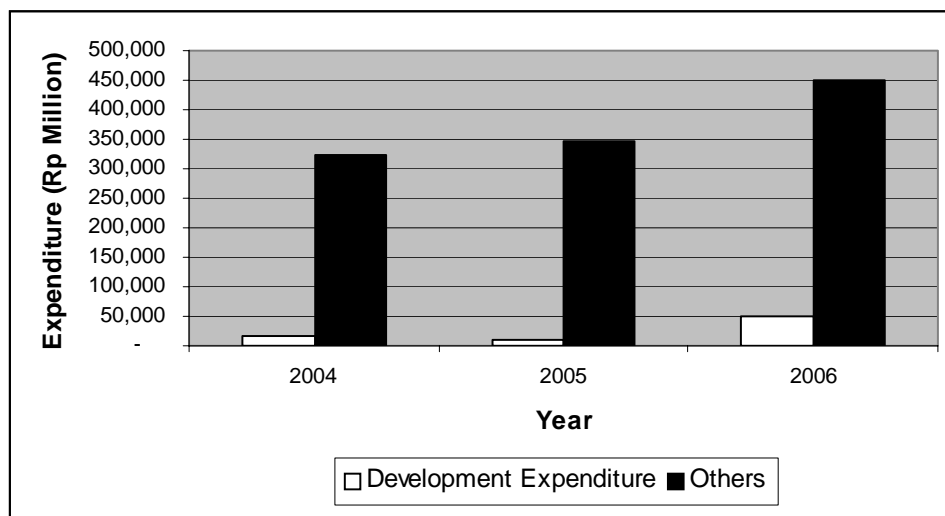


Figure 4.5 Regional Expenditure for Development in Denpasar City

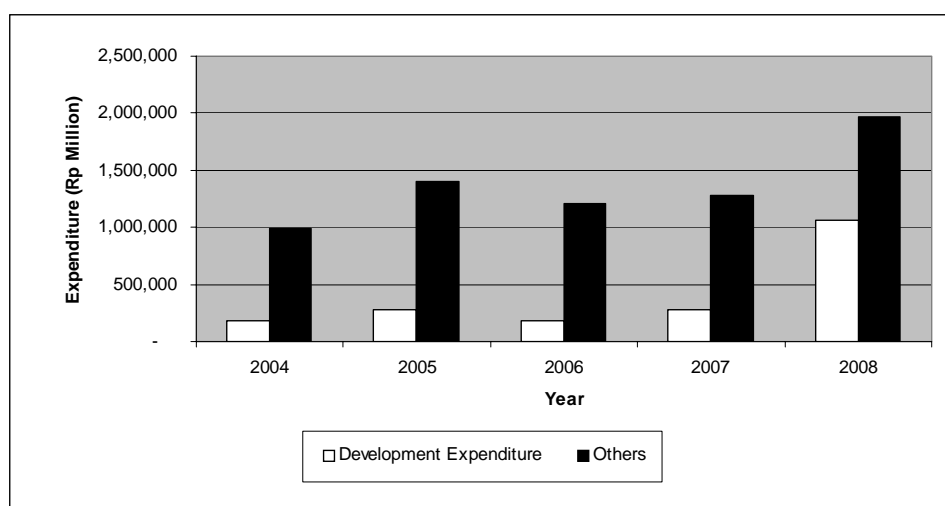


Figure 4.6 Regional Expenditure for Development in Surabaya City

3. Regional Financing

The implementation of performance budget has made deficit and surplus possible to happen during the establishment of APBD. Deficit occurs when the regional expenditure is greater than the regional revenue, while surplus is the reverse. Regional financing is needed to cover the deficit (Table 4.1). The sources of financing of budget deficit may come from regional loan, residual surplus of budget calculation, reserved fund and asset sale. In accordance to the Governmental Regulation No 2 of 2006 regarding Procedure of Loan Provision and/or Grand Acceptance and Continuation of Loan and/or Foreign Grant, the regional government has a right to conduct regional loan.

¹ Generally, local government budgets for implementing development programs are around 30% of the total budget while the majority is spent on employees and their associated expenses. For further discussion on public expenditure, the World Bank (www.worldbank.org/indonesia) has recently published "Spending for Development: Making the most of Indonesia's new opportunities", Indonesia Public Expenditure Review 2007, (World Bank, 2007).

In order to improve the effectiveness of regional loan, the loan shall be planned well. Besides it shall be adjusted to the financial capability of the region, the loan shall be of the right target. In addition, the regional load not only shall give income to the PAD but also shall be able to improve the economic growth rate reflecting from the improvement of trade and service sector. Table 11 describe the regional financing in Yogyakarta, Denpasar and Surabaya.

Table 4. 1 APBD of Yogyakarta, Denpasar and Surabaya (in IDR)

Year	Revenue	Expenditure	Difference between Revenue and Expenditure	Financing	Residual Surplus of Current Year Budget Financing
Yogyakarta					
2001	243,769,299,494	243,769,299,494	-	-	-
2002	303,020,070,538	303,020,070,538	-	-	-
2003	338,630,761,654	305,351,032,427	33,279,729,227	(33,279,729,227)	-
2004	369,649,879,035	370,340,575,770	(690,696,736)	690,696,736	-
2005	391,886,902,046	399,244,605,370	(7,357,703,324)	7,357,703,324	-
2006	519,022,237,322	496,768,977,052	22,253,260,269	(20,008,255,948)	2,245,004,321
2007	615,648,852,480	483,453,112,089	132,195,740,391	88,239,636,104	220,435,376,496
Denpasar					
2001	200,287,410,360	200,287,410,360	-	-	-
2002	325,483,729,948	325,483,729,948	-	-	-
2003	323,221,275,005	323,221,275,005	-	-	-
2004	334,757,185,000	340,584,960,845	(5,827,775,845)	5,827,775,845	-
2005	355,484,065,996	356,725,896,841	(1,241,830,845)	1,241,830,845	-
2006	486,959,048,000	497,986,739,400	(11,027,691,400)	11,027,691,400	-
2007	549,523,912,133	554,160,700,933	(4,636,788,800)	4,636,788,800	-
Surabaya					
2001	764,477,490,000	NA	NA	NA	NA
2002	920,265,810,000	NA	NA	NA	NA
2003	1,150,976,100,000	NA	NA	NA	NA
2004	1,330,350,750,000	1,165,929,320,000	164,421,430,000	NA	NA
2005	1,361,422,950,000	1,686,371,490,000	(324,948,540,000)	NA	NA
2006	1,712,217,508,389	1,386,340,966,460	325,876,541,929	510,710,582,140	836,587,124,069
2007	2,029,556,867,569	1,556,472,090,169	473,084,777,400	817,619,995,499	1,290,704,772,899
2008	2,056,999,103,515	3,025,360,210,903	(968,361,107,388)	968,361,107,388	-

Source: Report of Regional Revenue and Expenditure Plan Implementation, BAPPEDA of Yogyakarta City, 2008, BAPPEDA of Denpasar City, 2008 and Bappeda of Surabaya City, 2008

It is mentioned in the RPJMD of the three cities that expenditure finance is directed to the capital participation of State Local Companies (BUMD) which oriented in profit and aimed at increasing services to the community.

4.2. Public Sector Financing by Sectors

Based on the sectors, all cities reflected that the greatest budget is education and culture sector amounting averagely 30-40% (see Table Annex 3.11, Annex 4.10 and Annex 5.10). Furthermore, budget for environmental sector merely about 4-5% in Yogyakarta and 6-8% in Denpasar (unfortunately data for Surabaya is not available).

Chapter 5

Capacity Building of Government Staffs and Role of Intercity Program

In the effort of capacity building, the City Government of Yogyakarta, Denpasar and Surabaya delegates several government staffs to attend to short course and training, workshop and seminar. Although these kind of method considered insufficient, due to the short time of period, many municipal government staffs are still not able to implement the result of training, workshop or seminar in their daily tasks. And

Box 1. NGO Lestari Indonesia



Mr. Aris Sustiyono, familiarly called Bung Aris, opened a conversation by explaining the mission of Lestari Indonesia, i.e. *to respond global-level changes by establishing a local institution that the contributions are based on sustainable development principle*. The institution tried to integrate three important aspects (economy, social and environment) and focused itself on environmental issues, both rural and urban.

In implementing its programmes, Lestari Indonesia, which was established on the Earth Day 2002, frequently cooperated with many parties. Besides it involved in other NGO consortium, Lestari Indonesia frequently cooperated with governmental institutions such as Yogyakarta City Environmental Office.

In more detail, Bung Aris as the Director of Lestari Indonesia, said that although Lestari Indonesia did not involved in the Streetlight Management Scheme and Kampong Streetlight program, it currently involves in air pollution programme.

The friendly man viewed that the performance of City Government of Yogyakarta has been quite good and that it could play its roles as the leader of the community and give positive options for the community through various diplomatic efforts it had conducted. The implementation of environment programmes seemed quite progressive for the last several years and Yogyakarta Mayor was quite creative in placing environment ordering in the first place.

therefore, it is proposed that the ideal capacity building for government staffs is through comparative study, in which the city government staffs can learn directly in the real field. By organizing comparative study, it is expected that the city government staffs will be able to adopt various programmes applicable in their city, surely based on the existing needs. In addition, inter-city or inter-province job trainings are needed so that the skills of the city government staffs can be tested and assessed directly.

Internet use currently has been encouraged for the city government staffs in searching information and conducting communication with other parties. The frequency of internet use for searching information, however, depends on the individual and the workload of the staffs. In addition, almost all city governments in Indonesia have possessed website presenting urban programmes; therefore, it is quite easy for the city government staffs to search information regarding programmes currently run in other cities (for Yogyakarta : www.jogja.go.id, for Denpasar: www.denpasar.go.id, and for Surabaya : www.surabaya.go.id), in which space for the community to express their problems and for information exchange has been made available in the current website.

The decision making process in the City Governments is the combination of bottom up and top down approach. According to RPJMD, both bottom up and top down approach should accommodate community aspiration through MUSRENBANGDA. For example, in sanitation program in Surabaya, the needs of sanitation in each sub-district area is proposed in the sub-district MUSRENBANGDA as well as through sanitation planning proposed by Environment Control Office to Budgeting Team and if it is approved, prioritized, and in line with the RPJMD, then the sanitation budget will be allocated in this office. Idea of a program can also be achieved during the visits of Mayor and city government staffs to other cities in the world. In Yogyakarta, after the visits the Mayor will immediately conduct a meeting with related offices to discuss the programmes that have been performed successfully by other visited countries to see the possibility to be implemented in Yogyakarta based on the needs of Yogyakarta community.

Box 2. NGO Bali Fokus



Mr. I Nyoman Suartana, ST., commonly called Pak Nyoman, explains that Bali Fokus, as non-profit organisation, is aimed at encouraging dissemination of information about environmental management issues to all community groups. In addition, Bali Fokus encourages and develops independency and autonomy to the community in the effort to manage the environment.

In the implementation of Biogas Project in Ubung Village, Pak Nyoman said that it is merely NGO, City Government and Mekar Sari group (Soybean curd industries) that involve in the project. Media, unfortunately, is not involved.

The involvement of NGOs (such as Lestari Indonesia, WALHI, BORDA, Dian Desa, Bali Fokus) and community in the outreach of the programmes has been encouraged by the City Government and their performance are satisfying. The performance, however, shall be improved considering that in several cases of program implementation, the community still treated as the object, not the subject.

Meanwhile, the media, as a means to distribute information, has functioned well. All information about municipal government programmes has been distributed by the media through Regional Information Body (special office designated to distribute related information with regards City Government activities). Nevertheless, the information can also be collected through interviews with city government staffs directly related to the implementation of a programme.

In order to share information of activities or programmes at national level, the City Government of Yogyakarta, Denpasar and Surabaya participate as the member of APEKSI (Association of Indonesian Municipalities, website: <http://www.apekxi.or.id/>). On annual basis, members of APEKSI (94 municipal governments) hold a meeting to share information. The information sharing among municipalities is very important to be done. In

addition to sharing program, the meeting is aimed to strengthen partnership that has important meaning to the development of a region.

The City Government of Yogyakarta, Denpasar and Surabaya develop good relationship with central government as well. For example, City Environmental Office frequently coordinates with the Ministry of Environment in Jakarta, particularly in the implementation of several local programmes supporting the programmes implemented by the central government. PROLABIR (Blue Sky Programme) is a programme of air pollution control that is aimed to create an effective and efficient work mechanism in

air pollution control, to control air pollution, to achieve ambient air quality necessary for human and other creature health, and to develop environment-aware human behaviour. By the presence of PROLABIR, several local air pollution control programmes will be monitored by the central government. PROLABIR, for example, implemented by the central government through Decree of Minister of Environment No. 15/1996 regarding Blue Sky. At local level, the program is adopted by provincial government. For example in Yogyakarta, the program is adopted Provincial Government of Yogyakarta Special Province (through Decree of DIY Province Governor No. 182 of 2003).

Box 3. Jawa Pos Newspaper



Pak Imron works as a Marketing Staff in Jawa Pos Newspaper. He coordinates the activities directly related to the community and the city government, including environment programs.

In his opinion, in order to make a program successful, it takes good coordination among the governments, media, and sponsors. Each party has its own responsibility that is interdependent to the others; the government as the initiator, the sponsors as the organizer, and the media as the one that communicate it to the community.

One of the examples is the Green and Clean Program in Surabaya. With appropriate synergy among the government, Jawa Pos, and Unilever, the program is successful. The majority of the community support and participate.

As a part of PROLABIR, five cities i.e Yogyakarta, Denpasar, Surabaya, Central Jakarta, and Makassar have been awarded as “Kota Langit Biru Terbaik (The Best Blue Sky City) 2008” by Ministry of Environment of Republic of Indonesia. The cities were awarded after measurement and evaluation on air quality were conducted in 12 big cities in Indonesia.

At international level, a program called Sister City is implemented by three cities. Yogyakarta has been cooperated with Savannah City (United Nations of America), Kyoto City (Japan), and Hefei City (Peoples’ Republic of China). Denpasar currently has cooperated with Kyongju City (South Korea), particularly in cultural exchange programme. And Surabaya has developed sister city cooperation with three cities, that is Seattle (Washington, AS), Busan (South Korea), and Kochi (Japan). Sister City Program is conducted based on the similarities of the cities geographical and activities features to develop the opportunity of information sharing and cooperation in various sectors. The program is conducted through exchanged individuals, exchanged delegation, and information sharing in education and culture sectors.

Beside ICLEI, Yogyakarta and Surabaya is the member of CAI – Asia (Clean Air Initiatives in Asian Cities

www.cleanairnet.org/caiasia/). CAI-Asia is an organisation holding a mission *to promote and demonstrate innovative ways to improve the air quality in Asian cities through partnership and sharing experiences*. Surabaya is also conducted cooperation with Kitakyushu Initiative Network and UNESCAP.

The cooperation between the cities with ICLEI since 2001 to 2005 has given many advantages for the city government staff. Cities program has been promoted by ICLEI at national and international level. City government staffs including the Mayor have been invited to many international and local events to promote in order to promote urban environment-concept programmes that have been successfully completed. During the ICLEI’s activities in Indonesia, a partnership had been developed with The Center for Transportation and Logistics Studies (PUSTRAL) at Gadjah Mada University. PUSTRAL

serves as technical assistance for ICLEI with tasks to assist the cities (the member of ICLEI in Indonesia) in formulating transportation program and GHG profiling.

Particularly for Denpasar, the role of ICLEI has not been optimum in promoting the Biogas program. This is because Denpasar joined ICLEI in 2004 and ICLEI stopped its activities in Indonesia since 2005 and therefore information dissemination process in City Government of Denpasar stopped as well.

Despite of the success of ICLEI in promoting cities program both in national and international level, however in the implementation stage there are some constraints:

- a. The guidance from ICLEI Indonesia project coordinator has not been optimum, especially in calculating the target of emission reduction from related programs. This is why until now the city government staff has no capability in calculating the reduction.
- b. The software to analyze the level of emission has not been given to the City Government. The City Government has always been asked to collect data and the data are calculated by ICLEI Indonesia project coordinator so that when the project is over, the City Government has not been able to conduct independent calculation / evaluation its own emission reduction target.

DRAFT

Chapter 6

Programme of Each City

6.1. Yogyakarta

1. Project Description : Streetlight Management Scheme Programme



Figure 6.1 kWh Meter in Public Streetlights

Yogyakarta City with an area of 32.5 km², divided in to 14 districts and 45 villages, including the capital of Yogyakarta Special Province, has 441,231 km of road length, served by 15,000 streetlights (on 467 streets). From years to years the numbers of streetlights are increasing in order to comply with the demand.

Before 2001, The City Government must pay the electricity bill for the streetlight based on contract system. Meaning, the city must pay for 12 hours of streetlight usage, regardless whether the lights are actually on or not. Consequently, the city had to pay the electricity bill of USD 56,000 per month in average to the PLN. Meanwhile, streetlight's revenue from public streetlight tax, which is 8% from total customer's electricity bill each month, was only USD 50,000 per month, which causes the deficit of USD 6,000 per month. Noticing such a condition, Yogyakarta City Government formulated programs to cut down its electricity bill.

Table 6.1 GHG Forecasting

Year	GHG (ton)			%
	With Project	With Out Project	Reduction	
2001	6,495	-	-	
2002	7,387	4,802	2,586	35%
2003	8,066	5,243	2,823	35%
2004	8,863	5,761	3,102	35%
2005	9,767	6,349	3,418	35%
Total			11,929	
Average Annually			2,982	35%

Source: ICLEI, 2002

In 2001, The City Government of Yogyakarta through City Infrastructure Office implemented an energy efficient program for streetlight. They changed the usual streetlight to the type which are : (a) life time is twice as longer as the existing (b) the same lumens with 60% lower power (watt), (c) had capacitor that can reduce the power use up to 30%. And at the same time putting a meter on streetlight poles to measure the power used (pay-for-service principal). In 2002, ICLEI assisted the City Government of

Yogyakarta to forecast the GHG from streetlight with and without project condition. The result is shown in Table 6.1.

From Table 6.1, one can assume that in a business as usual condition (no project is implemented), in 2005 the City would produce 9,767 tonnes of eCO₂. In that time, the City predicted that the project would reduce 35% GHG (Green House Gases), based on the reduced of payment for the last couple months. With this assumption, it was calculated that by the year of 2005 the City would reduce 11,929 tonnes of eCO₂.

Table 6.2 GHG Monitoring

Year	GHG (ton)			%
	With Project	With Out Project	Reduction	
2001	8,628	-	-	-
2002	9,374	6,858	2,516	27%
2003	10,185	5,337	4,848	48%
2004	11,066	6,773	4,292	39%
2005	12,023	7,834	4,189	35%
Total			15,845	
Average Annually			4,241	37%

Source: ICLEI, 2005

After four years of implementation, to monitor the results of the energy efficiency program, a calculation of GHG reduction was carried out in 2005. Based on the real energy used and payment in 2002 until 2005, it was calculated that in 2005 the City have reduced 15,845 tonnes of eCO₂ or 37% GHG reduction (Table 6.2).

2. Methodology in Reducing the GHG Emission

Green house gas resulted from the programme was measured by calculating the kilowatt hour (electricity use) consumed using green house gas coefficient number (the coefficient number is provided by ICLEI – Annex 2) for electricity. The difference of green house gas before and after the implementation of the programme is the reduction of green house gas emission as the result of the programme implementation. For Streetlight Management Scheme programme in Yogyakarta, as explained in the previous section, after ICLEI conducted monitoring, the reduction of green house gas emission was 15,845 ton during 2001-2005.

Based on the interview with the City Environmental Office and City Infrastructure Office (offices related to CCP and streetlight programme within City Government of Yogyakarta), it is revealed that related staffs have not mastered the method of computing green house gas reduction from the related programme, although ICLEI in 2002 had organized a workshop on method of computing GHG reduction.

3. Scope of the Project

The scope of Streetlight Management Scheme programme is the entire of Yogyakarta City. Due to large amount of saving on streetlight payment since the streetlight management scheme program was implemented, the program is extended to Kampong Streetlight Program (since 2004). The city has developed 4,500 streetlights in 45 sub districts in 14 districts all over the city. The management of

Kampong Streetlight is managed by Sub District Community Institution (SDCI) in every district. The City Government provides each SDCI a grant to pay the streetlights bill and its maintenance.

Looking at the success of the project, in 2005 ICLEI donates 100 Ecorola lamps to the City Government. Those lamps have not been installed yet since the City Government need to secure supporting fund to build the poles, KWh meters and other supporting facilities. The City Government through City Infrastructures Office plans to install the lamps at the end of 2005 in 3 sub districts i.e Purwokinanti, Mantrijeron and Wirobrajan.

Until 2008, KWh meter and energy-saving lamps have been installed in all protocol street, 70% of kampong street and 55% of area/village street. It is expected that in 2011 KWh meter and energy saving lamps will have been installed in all street from protocol street to kampong or village street.

4. Stakeholders Involvement

The streetlight programme was initiated by the City Government and was well accepted by the community which currently needs streetlight, particularly in kampong level. The programme is actually a follow-up of the city government's efforts to deliver services to the community.

Table 6.3 Historical Data of Streetlight Program Dissemination

Year/Month	Organizer	
	Government (city, provincial, central)	Government (municipal, provincial, central)
May, 2008	Hearing Forum between City Infrastructure Office and community figures	
2006	Seminar <i>Clean Air Initiative</i> , Yogyakarta	
May 2006		4 th Mayors' Asia-Pacific Environmental Summit (MAPES 2006) in Australia (although the Mayor failed to participate but Yogyakarta submitted Mayors' Commitments Progress Report)
Medan, 22-25 August 2005		ICLEI INDO-CCP WORKSHOP
2004	Seminar, City Infrastructure Office	
22-24 September 2003		MAPES (Mayor's Asia – Pacific Environmental Summit) 2003 in Honolulu
15-17 April 2003		National Workshop, INDO- CCP (ICLEI) in Surabaya

Source: Data Survey, 2008 and PUSTRAL's archives

In accordance to urban programme planning, the streetlight programme planning has engaged community participation through MUSRENBANGDA in village level by inviting the head of sub villages and neighbourhood facilitated by Institution for Urban Community Development (LPMK). After it is

discussed in MUSRENBANGDA, the programme was included in the RPJMD to be implemented until 2011.

In the outreach of streetlight programme in Yogyakarta City, NGOs are not involved. The City Government of Yogyakarta, through City Infrastructure Office, directly goes down to the community to socialise and evaluate the programme. Nevertheless, media (in this case newspaper) has been actively involved to inform the streetlight programme.

The streetlight programme has been informed widely in local, national and international level since 2003 (based on the recorded data, see Table 6.3). In local level, City Infrastructure Office, as the institution which is responsible for the programmed, has organized dissemination of the program in the form of seminars by inviting the community figures. In national level, workshops and seminars have actively organized by ICLEI in several cities of Indonesia by inviting CCP member cities in Indonesia. Within the forum, each city shared information about the programme conducted in every city. In international level, furthermore, ICLEI has invited cities of Indonesia in the effort of programme exchange, although it is not as specific as streetlight programme, for example programmed conducted in Rayong, Thailand (30 June – 2 July, 2004), discussing waste management.

In international level, Yogyakarta City has been quite active in introducing streetlight programme, for example in MAPES (Mayors' Asia-Pacific Environmental Summit) event which is conducted on two years basis. In the event, the Mayors are asked to give commitment in the implementation of a programme and to report the progress in the next MAPES meeting.

Another party, such as City Council, plays role as the supervisor and gives approval toward budget proposed by the municipal government for streetlight programme. PLN, on the other side, in the implementation of the programme plays as the party providing electricity supply.

Third party can be involved in the implementation of city programme. For streetlight programme, the provision of energy-saving light is performed through general bid system to the third party (Service Provider). The requirements of lamp desired by the Government are mentioned in the bid requirement. The service provider, subsequently, submitted proposal describing various types and kinds of energy-saving lamp. Eventually, the government chooses lamp of PHILIPS brand since the brand met all the qualification in the bid requirement.

Problem facing the implementation of Kampong Streetlight Programme is in technical terms. The community expects that kampong streetlight programme is also implemented on non-conbloc areas. It is different with the city government side desiring that kampong streetlight is prioritised for conbloc streets. On the other side, inefficiency has happened in several locations: streetlight is installed on areas



Figure 6. 2 Yogyakarta Mayor (Herry Zudianto) and Honolulu Mayor (Jeremy Harris) in the MAPES 2003 Held in Honolulu, Hawaii

that have been quite bright and lighting has been previously available. It is pitiful since there are many other locations that seem urgent to install streetlight. Although there are some problems in the field, it does not result in conflict and the problems can be solved through discussion.

5. Financing

The financing of Streetlight programmed had been allocated in the APBD, since the programme was started in 2001 until the final phase of the programme in 2011. The budget allocated for Streetlight Management Scheme and Kampong Streetlight programme from 2007 – 2011 to improve (purchase and

install KWH meter and energy-saving lamps) and maintaining public streetlight is about Rp 39,558 Million (4,026,726 USD).

Box 4. Voice of the Community (Yogyakarta)



Mr. Affandi (Left) and Mr. Nugroho (right) are citizens of Cokrodingratan Village. They got information about PJU and kampong street programme in their area through LPMK in the meeting attended by local community.

"*Dari gelap menjadi terang!* (From dark to bright!)", Mr. Afandi said briefly when he was asked about the benefits of the programme. In addition, the surroundings became safer. Mr. Nugroho continued after he was interviewed while sitting in the patrol post.

Mr. Afandi and Mr. Nugroho argued that City Government of Yogyakarta, particularly during the current governing period, had been quite good in performing its duties and responsibilities and there was improvement compared to previous years. Much budget allocated to improve the community's prosperity could be enjoyed by the implementation of the prescribed programmes.

As mentioned above, the payment of streetlight bill was monthly collected from the Streetlight Tax (8% from total electricity bill per month) of PLN customers. The mechanism is as follows: PLN receive payment from the community including the tax and 8% shall be deposited to the City Government to be included in the APBD in the PAD post. Subsequently, the City Government will pay for the streetlight bill to PLN. Since the implementation of streetlight programmed in 2001, by the

installation of KWh meter and energy efficiency lamps, the City Government has been quite successful in saving Rp 500 – 900 million per year (see Table 6.4).

6. Project Co-Benefits

In addition to the reduction of GHG, co-benefits of streetlight programme to the city government are as follow: a) being able to serve the community comprehensively; (b) motivating the night tourism; (c) saving the cost that can be allocated for other necessary programmes; and (d) the use of KWh meter is useful in controlling and supervising electricity fraud. For the community, the programme can (a) increase the cleanness of environment, such as decreasing pollution wasted to rivers (because it is bright); (b) improve economic activities of the community; (c) improve safety of the community living around the riverbank; and (d) reduce criminal action or criminal risk at night.

Table 6.4 Saving from the Payment of Streetlight Bill

Year	Revenue form Public Streetlight Tax	Payment of Public Streetlight Bill	Residue of Public Streetlight Revenue	
			Per year	Per year
2000	5,398,722,290	5,233,590,507	165,131,783	13,760,982
2001	6,707,661,020	5,518,837,141	1,188,823,879	99,068,657
2002	10,113,246,000	5,537,053,508	4,576,192,492	381,349,374
2003	12,073,973,520	6,135,411,297	5,938,562,223	494,880,185
2004	14,373,485,340	6,913,135,186	7,460,350,154	621,695,846
2005	14,962,323,865	7,017,957,323	7,944,366,542	662,030,545
2006	16,819,421,894	6,470,189,571	10,349,232,323	862,436,027
2007	18,165,137,380	6,678,931,704	11,486,205,676	957,183,806
2008	7,155,019,850	2,983,648,492	4,171,371,358	834,274,272

Source: Yogyakarta City Infrastructure Office, 2008

6.2. Denpasar

1. Project Description : Community-Based Biogas Project: Converting Liquid Waste to Energy

Community Based Biogas Project in Ubud Vilage, Denpasar was initiated in 2003. The project is basically installed IPAL (Instalasi Pengelolaan Air Limbah - Liquid Waste Treatment Installation) communal infrastructures. IPAL is a liquid waste treatment plant with biogas digester. IPAL collects waste from soybean curd industries and poultry slaughterhouse, processes it in the digester, and converts it into biogas.

Ubung village of North Denpasar District, particularly Pucuk Sari is an area with high level of population density and complex sanitation problem. Highly dense settlement, in addition to the presence of centre of household industry of soybean and chicken slaughtering house, has turned Ubung area into a dirty area in Denpasar City. Previously, there has been many programmes and efforts planned for several last years in order to make the area better; however, it seems useless since it does not solve the root of the problems.

On July 2003, because there are complaints from the community that feels disturbed by the stinky smell and liquid waste of the small-scale industries, the entrepreneurs have agreed to develop IPAL system together. The entrepreneurs, however, need technical assistance and guidance from other parties. Together with process of participative approach currently implemented in the area in the frame of SANIMAS¹ (Community-Based Sanitation Group) project, Bali Fokus-BORDA (Bremen Overseas Research and Development Association) have responded well to the idea by giving technical assistance, guidance and financial support for IPAL physical construction. The entrepreneurs, furthermore, agree to give contribution of area for IPAL location, digging cost, transportation of land resulted from digging process and pipe system from the manufacture locations to IPAL site. The physical construction of Biogas equipment is developed by an engineer made available by Bali Fokus. The workers, however, including foreman, are taken from the citizens who have knowledge in construction; therefore, transfer of knowledge can happen. It is extremely useful since the maintenance of the equipment will be performed by the community.

¹ SANIMAS is a participative approach that is aimed at analysing needs of sanitation and conducting development process until maintenance of facility by, from and for the community living within a dirty settlement.

The City Government of Denpasar does really support the initiative of the programme because it is in line with the government programme, i.e. Sanitary Environment Program in Denpasar City. On February 2004, IPAL Unit I was officially opened by Denpasar Mayor, in this case represented by the Head of Denpasar City Environment Office together with the official announcement of SANIMAS system.

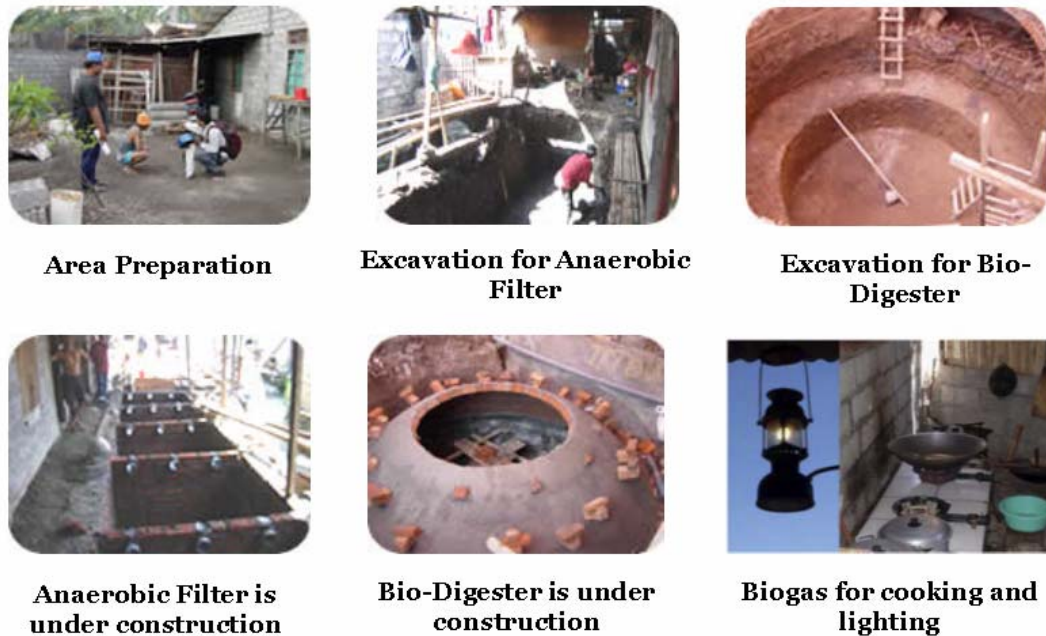


Figure 6. 3 Development Process of in Ubung Village

Up to this time, there have been 2 units of Biogas in Pucuk Sari area of Ubung village. Each unit can process 6-8 tons of liquid waste a day, collected from participating home-based soybean industries. Each unit produces about 15M³ biogas per day that is used for cooking (Unit I, 9 stoves for 5 KKs and Unit II, 8 stoves for 5 KKs) and lighting needs of the community so that the community can save petroleum consumption.

In the wider scope, at present, public IPAL is under construction in Denpasar, called as DSDP (Denpasar Sewerage Development Project) that was certified by Indonesian President on June 14, 2008. DSDP is the development project of centred liquid waste hydrant system, which for the early stage involved Denpasar City and Badung Regency and able to serve 160,000 persons. This development project funded by loan from Japan Bank International Corporation (JBIC) is based on the fact of high pollution of Benoa Bay waters.

The implementation of the certified project represents the early phase of three planned phases. The activity involves the development of 129 km liquid waste pipe network covering main pipe, secondary pipe, tertiary pipe, and lateral pipe network as well as IPAL development in Sawung. The second phase of DSDP development construction will be conducted in 2009-2014.

DSDP Phase I will serve 10 thousand home connections or equal to 50 thousand persons. Beside that, DSDP also serves connection to hotels and restaurants with connection cost of Rp 1.5 million. Furthermore, households will get subsidiary from the local government and pay only Rp 600 thousands.

Then, every home gets connection and shall pay retribution around Rp 5,000 monthly. The retribution for hotels is based on room numbers, and for restaurants is based on chair numbers.

The Bali Province government prepares 10 hectares field that costs Rp 100 billion for this IPAL project. With the capacity of 51.000 m³ per day, IPAL will produce water processing result with BOD (Biological Oxygen Demand) of less than 30mg/litre (better of the quality standard, 50mg/litter). Then, it can be used to water parks or drained to sea.

With the development of DSDP, it is expected will not interrupt the activity of sewerage to communal IPAL, since it is only the effluent which is drained to the DSDP.

2. Methodology in Reducing the GHG Emission

GHG reduction of this program resulted from fuel substitution and avoidance of methane gas emissions from the untreated liquid waste. Fuel consumption (kerosene and LPG) before and after the program is calculated in order to see the fuel saving. In addition, the liquid waste is also measured before and after the program. The difference of fuel and liquid waste then multiply with coefficient number of green house gas (the coefficient number is provided by ICLEI, Annex 2) in accordance to the fuel type and waste type, so that the reduction of GHG is acquired.

Based on ICLEI Report (2005), Community-Based Biogas Project in Denpasar were successful in reducing GHG by 149 ton per year. Based on the interview with the City Environmental Office (department related to CCP and Community-Based Biogas programme within City Government of Denpasar), as in Yogyakarta, it is revealed that related staffs have not mastered the method of computing GHG reduction from the related programme.

3. Scope of the Project

The project, at the beginning, is implemented for small scale. Currently, it can serve the entire of Ubung village citizens (500 KKs), using the stoves in turn. Biogas Projects were also implemented in several villages by Bali Fokus, such as in Sesanan, Padang Sambian and Penatih village. The suppliers of waste are not merely from soybean curd industries but also animal (cow) husbandry and slaughterhouse such as in Pesanggaran village, Aswinandini Cow Husbandry in Bangli and Peguyangan Kangin. The programme is not only implemented in Denpasar, the programme has also been implemented in West Nusa Tenggara Province (Harapan Makmur Soybean curd industry in Bima City) and Stable in Lombok.

Biogas project in Ubung is a pilot project and The City Government of Denpasar was merely role as facilitator. If the project responded well by the community, then for the next stages the City Government will allocate some fund in the APBD. But since the cost to build one biodigester is quiet expensive (Rp 85 Million), the City Government sought for other partner which is PT. Mulya Tiara Nusa. With this company, the cost to build one biodigester was only Rp 5 million.

Until 2007, The City Government of Denpasar (Environment Office and Husbandry Office) in the form of SANIMAS Program have built 16 biogas units in several villages such as Padang Sambian Kaja, Peguyangan Kangin, Penatih, Padang Sambian and Sesanan.

4. Stakeholders Involvement

Outreach of the projects was started in the middle of 2002, when Bali Fokus conducted a survey and investigation to several dirty kampongs in Denpasar City, by referring to secondary data from several governmental institutions such as Environment Office and Public Works Office of Denpasar City. After the primary data have been collected, Bali Fokus subsequently conducted intensive approach to the entrepreneur as well as community figures of Ubung Village.

In line with the outreach of SANIMAS, approach to the members of Mekar Sari Jaya was performed through discussion, presentation and participatory approach using RPA (Rapid Participatory Assessment) method during April-June 2003 period. Meetings between Bali Fokus and entrepreneurs have been conducted for 12 (twelve) times. The meetings were to discuss the management system of liquid waste resulted from soybean curd industries and poultry slaughterhouse.

Justification of the activity is that if the sanitation problems found in the area are merely solved through SANIMAS project, the impact is not too significant. The biggest sources of pollution and stinky smell in the area come from soybean curd industry and poultry slaughterhouse. In fact, SANIMAS merely solves domestic liquid waste (from household only). In order to solve the complex sanitation problems in this area, pioneer project of soybean curd industry and SANIMAS is implemented in Ubung Village, with financial resource that is different to that of SANIMAS.

Table 6. 5 Historical Data of Biogas Program Dissemination

Year/Month	Organizer		
	Government (city, province, central)	Community/NGO etc	International NGO
Medan, 22-25 August 2005			ICLEI INDO-CCP WORKSHOP
2004	City Environment Office		
2003			Borda
2003		Bali Fokus	

Source : Data Survey, 2008

The problems facing the implementation of Biogas Programme are the lack of financing and the lack of facilities and infrastructures. The emerging conflict is related to area in which the biodegester will be placed. The conflict can be solved by discussion since the community understand the benefits of the programme, i.e. for the sake of their prosperity.

Other party involved in the biogas programme (outside the Ubung village) is PT. Mulya Tiara Nusa which helps the development of biogas facilities and infrastructure in Peguyangan animal husbandry area. The project, completely funded through Denpasar City APBD, is implemented by stock-farmer living and Peguyangan area and monitored by Denpasar City Office of Animal Husbandry.

5. Financing

The development of 1 unit biogas equipment costs about Rp 85 million (8,655 USD), in which the soybean entrepreneurs contribute 5% and the rest if funded by BORDA through Bali Fokus. The operation and maintenance of IPAL is under the supervision of Bali Fokus, including pollution sample testing. The entrepreneur shall pay monthly charge of Rp 5,000 (0.51 USD) per person. The money is used to pay salary for operator and person who maintain the IPAL, whereas the community using the

biogas is free of charge. For biogas project in Peguyangan animal husbandry, the construction cost amounting Rp 5,000,000 (510 USD) will be borne by the government through APBD.

Operation and maintenance are activities that are conducted continuously. Bali Fokus provides training for the operator or responsible persons who are appointed by the entrepreneurs to hold Operation and Maintenance Section. It is aimed to maintain that IPAL always functions well and maximally in long-term period.

6. Project co-benefits

Box 5. Voice of Community (Denpasar)



Mr. Asmasluhur said that in the area they live in, there are soybean curd industries and poultry slaughterhouse daily producing waste so that the area seems extremely dirty. Since the implementation of Biogas programme, the stinky smell resulted from the manufacture waste has gone; therefore, the community does support the project. Currently, the community shall not buy for kerosene or LPG. *I'm very happy to the presence of biodegester; besides the environment becomes cleaner since the wastes are collected here, I and my family can save the life cost since we don't have to buy kerosene anymore,*" said the 39-year-old man while smoking.

In addition to GHG reduction, co-benefit of this program is also the reduction in the BOD (Biochemical Oxygen Demand) content of the wastewater by 90 percent, thereby protecting Denpasar's bodies of water.

The use of biogas is estimated to save kerosene consumption by 2.5 litre/day/KK. As an illustration, if there are 10 KKs daily use biogas, kerosene consumption saving for one year will amount for 9125 litter or equals to Rp 22,812,500 (equals to US\$ 2,426). According to ICLEI's report (SEA-CCP Case Outline No. 2, October 2004), the use of biogas is estimated to save 6.6 tons of LPG annually which is equivalent to about US\$2,533 as financial savings.

Furthermore, biogas in Ubung village is used for small-scale industry such as food stall. In accordance to result of the survey, by using biogas the entrepreneur can save 15 litre of kerosene per day. Another benefit that can be taken from the programme is solid waste that can be used as fertilizer.

6.3. Surabaya

1. Project Description : Fuel Switching for City Government Vehicles

Surabaya as one of the industrial cities experiences extremely rapid growth in industry sectors and it is balanced with the rapid development of the city and the mobility of people and goods. Such a condition has emerged urban problems, like energy consumption in people settlement, waste, and congestion. Those problems are end up in pollution issues.

The existing total length of road in Surabaya City that is 2,035 km can not accommodate the rapid growth of vehicles in urban area any longer. The road length is no more sufficient to serve the rapid population growth. Acute congestion is the main cause of the low air quality in Surabaya. The smoke produced by vehicles when they stop due to congestion adds up green house gas production.



Sources: Photos taken from the Presentation of Air Quality Improving - Experiences of Surabaya City Indonesia, The Sixteenth Asia Pacific Seminar on Climate Change "Asia Pasific Regional Approach to Climate Friendly and Climate Change - Resilient Society" Jakarta, Indonesia, 5 - 8 September 2006

Figure 6. 4 City Government's Car with CNG Fuel

To address to this problem, Surabaya City Government conducts some environment programs as well as sustainable transportation programs. The program is then known as "Program Langit Biru Surabaya" or Surabaya Blue Sky Program. Previously in 1998, with the GTZ assistance, Surabaya has developed SUTP (Sustainable Urban Transport Program) documentation. STUP GTZ is began with programs of many aspects, including sustainable development of transportation policies through intensive discussion with institutes and related partners, designing and implementing a campaign of community awareness about sustainable transportation, technical ways in reducing vehicles emission, increasing capacity of air quality management, assembling appropriate fiscal instruments, improve the condition for non motorized vehicles and pedestrians, CNG (Compressed Natural Gas) usage promotion, a pilot project of public transportation improvement, and supplying and information dissemination about international experiences.

But in its implementation, SUTP program did not receive enough fund with the result the programs can not be implemented. Therefore, to attract community interest especially in promotion of CNG fueled vehicles, in 2002 the City Government began the fuel efficiency program by using CNG for city government vehicles. This program is intended as pilot project in order to encourage the community to use CNG fueled vehicles. The use of CNG that can save energy better and produce less pollution compared to diesel fuel or gasoline is introduced by the City Government as one of the solutions to deal with air pollution. CNG as an alternative fuel has been started in 1996 – 1997 by Zebra Taxi, which has 1000 fleets using CNG as fuel.

Meanwhile, in the scope of the city government, the CNG program has been started in October 2002 to April 2003 as the first stage of the program. One hundred (out of 400) vehicles operated by the City Government has used CNG fuel. The office vehicles have been provided with converter kit, CNG tube and on/off switch, so that they can use either gasoline or CNG for fuel.

2. Methodology in Reducing the GHG Emission

The reduction of GHG in this program is resulted from the fuel substitution from gasoline to CNG. Gasoline consumption before the implementation of the program is calculated and multiplied with green house gas coefficient value (the coefficient value is provided by ICLEI, Appendix 2). It also applies for the CNG consumption after the implementation is calculated and multiplied with the green house gas coefficient value. The difference of the green house gas before and after the implementation of the program is the GHG reduction value (see Table 6.6).

Table 6.6 Green House Gas Reduction from the CNG Program

Fuel	Number of Vehicles	Daily needs (ltr/car)	Cost per year (Rp)*	CO2 per year (ton)
Gasoline	100	9	608,333,333	765
CNG	100	6	141,944,444	87
Saving			466,388,889	677

Notes:

*Cost per year is calculated based on the 2004 price. The Premium gasoline is Rp 1,810/liter and CNG is Rp 700/liter for performance equal to premium. The premium gasoline and CNG price in 2008 is Rp 6000/liter and Rp 3000/liter for performance equal to premium.

Source: ICLEI Report, 2004

The analysis conducted by ICLEI in 2004 stated that the CNG program can reduce the green house gas emission up to 677 ton per year and save around US\$54,869 (Currency conversion in 2004, Rp 8500 for 1 USD).

3. Scope of the Project

Total number of vehicles owned by the city government is 400 four-wheeled vehicles and 125 waste transporter vehicles. In the beginning of the plan, these 400 cars will be converted to CNG fuel by 2008 (see Table 6.7).

Table 6.7 Targets and Performance Indicators

Phase	Targets	Time-frame	Performance indicators
Phase 1	100 units of City Government's vehicles	By 2003	20% of vehicles switched, reduced 684 Ton eCO ₂
Phase 2	125 vehicles (to transport solid waste)	By 2005	40% of vehicles will be switched, will reduce 6241 Ton eCO ₂
Phase 3	Another 300 cars of City Government's	By 2008	100% of vehicles will be switched, will reduce 8293 Ton eCO ₂

Source: Presentation of Fuel Switching of The City Government's Vehicles to Support Climate Change Protection : A Case in Surabaya presented in the Regional Exchange on Fostering Local Climate Actions, 21-23 April 2004 in Yogyakarta, Indonesia

4. Stakeholders Involvement

The CNG program for city government vehicles only involves related offices and the users of vehicles owned by city government. The program implementation process is as follows.

- a. The signing of Surabaya City CCP – ICLEI Workplan
- b. Surabaya City office vehicle inventory

- c. The proposal of the plan of Gas Fuel (CNG) converter for Surabaya City Government vehicles to Surabaya City Government Budgeting Team
- d. Coordinating meeting and dissemination in city government staff
- e. Announcement Letter about CNG Program Plan
- f. Installation schedule and implementation

Table 6. 8 Outreach Process of CNG Program

Year/Month	Government (city, province, central govt.)	Operator	
		Community/ NGO etc.	International NGO
15-17 April 2003, Surabaya	Surabaya City Government in cooperation with ICLEI INDO- CCP	-	INDO-CCP Workshop “The Implementation of CCP in Some Cities in Indonesia”. Conducted by ICLEI – INDO CCP
19-21 July 2004, Mexico	-	-	Local Government Innovations in Climate Protection. Conducted by ICLEI
2004, BAQ India	-	-	Speaking on the Strategy of Air Pollution Control in Surabaya City. Conducted by CAI Asia – Network
2006 , BAQ Yogyakarta	-	-	Poster Presentation. Conducted by CAI – Network
5 – 8 September 2006, Jakarta	The Sixteen Asia Pasific Seminar on Climate Change “Asia Pasific Regional Approach to Climate Friendly on Climate Change Resilient Society”. The event is conducted by the Ministry of Environment in cooperation with Makato City, Japan	-	-

Source : Bappeko Surabaya , 2008

The outreach of CNG program both nationally and internationally has been conducted since 2003 to 2006 as described in Table 6.8.

However, in the implementation, the use of CNG must face some constraints as follows.

- a. Surabaya City Government does not have its own gas fuel station. The existing gas station is owned by Zebra Taxi Company, so that the office vehicles converted to Gas Fuel get the fuel from Zebra Taxi gas station in Brebek and Tanjung Sari Area (far from the city center). This made the CNG users reluctant to use CNG because they have to travel far to get their vehicles refueled.
- b. It often happens that the gas station pressure is low, therefore private, public, and office vehicles are not allowed to fill the gas fuel in the gas station; the priority is for Zebra Taxis as the owner of the gas station
- c. The spare parts are difficult to find in Surabaya City.
- d. Not all mechanical garages provide the service of converter kit installation, engine tune-up, CNG vehicle inspection and maintenance.

Box 6. Voice of Community (Surabaya)



This dark-skinned gentleman is usually work in Tegalsari, Surabaya, where he earns livelihood for his son and daughter. He has been working as a taxi driver in Silver Taxi for five years. Silver Taxi is one of the taxi companies using cars with gas and gasoline fuels.

He said that the advantage of using gas fuel is the affordable price compared to cars with gasoline fuel; even, the difference of the price of both fuels is 50%. However, the gas fuel station is located in a distant location and it only has limited fuel stock.

According to Bapak Kuswoyo, this program can work properly because it gets the support from a gas company in Jakarta.

Various constraints above caused many CNG users felt reluctant using this fuel. Whereas, there was an agreement between Zebra Taxi and PERTAMINA (State Oil Company - one of the CNG providers in Surabaya). The agreement stated that Zebra bought the license as the CNG distributor from PERTAMINA with minimum purchase of 1000 litre per day. Then Zebra also made an agreement with the city government. The agreement is, the city government will purchase CNG from Zebra gas station for their CNG vehicles.

However, along the way, since the vehicles users are reluctant to use CNG, the sell of CNG were less than 1000 litre each day which turn Zebra in loss condition and as a result the contract agreement is terminated in 2005. Nonetheless in reality until today, Zebra is still using CNG for their vehicles but they are not a distributor anymore, just a regular customer of PERTAMINA.

Beside Zebra Taxi, the other taxi company using CNG is Silver Taxi. Silver taxi has 600 units of operation vehicles. Silver has collaboration with CNE (an oil and gas company) to provide CNG

but only as a user not as distributor. If any, the City Government can have collaboration with CNE to supply the gas. However, considering the various constraints mention above the City Government still pending to continue the CNG program for its vehicles.

5. Financing

The cost needed for a vehicle conversion is about Rp 10 – 12 million, that is to purchase and install the converter kit and gas tube. The funding for CNG program for city government office vehicles is purely from Surabaya City Budget of Revenue and Expenditure. By April 2003, Rp. 888.750.000 has been allocated for switching 100 vehicles to CNG.

6. Project Co-benefits

Besides reducing green house gas, other benefits of this program are the fuel cost saving (see Table 6.6), better air quality and indirectly it will lead to the improvement of live/health quality of Surabaya citizen.

Chapter 7

Concluding Remarks

1. Decentralization process has put forward the opportunities and challenges for local governments. Therefore, they have to define efforts to address the problems of development in local level. There are many opportunities to manage self-programs so that the development needs can be well-directed. On the other hand, local government is encouraged to be more transparent and reliable for the community. The city should be creative in introducing city investment and producing income as well as wisely managing its finance by investing public money to public expenditure and projects with the most effective cost. In order to achieve those targets, strong leadership from the Mayor is needed. The Mayor should have the courage to take the lead for implementing the least risk programs and at the same time improve the in-house technical capacity. In Yogyakarta, Denpasar and Surabaya, the political will of the Mayors in implementing CCP Programs is evidence, whereas all Mayors signed City Resolution which stated to reduce GHG through implementing local programs.

2. In the effort to improve the in-house technical capacity, the City Government of Yogyakarta, Denpasar and Surabaya have set several programs such as delegates government staffs to attend to short course and training, workshop and seminar, join the cities association (APEKSI), sister city and networking with international NGO and donors as well as using the internet to seek and disseminate information. One important challenge that the city government to face is to improve the design of public consultation. It is evidence from Streetlight and Biogas Program where proper public consultation leads to the success of the program implementation.

The city government and the administration has to learn, and learns quickly how to design and delivers the program in the most effective way. Secondly, the city government must continuously improve their capacity to implement and monitor the bundled program of environment and local development. For some years to come the issue of the Millennium Development Goals and poverty reduction will still dominate the political decision – and this bundled approach will be the most appropriate strategy in conveying the message for environment improvement.

3. Every long term development objective needs a first step. The city administration experienced that taking the first step is the most difficult part of the program implementation. Governments and bureaucracies are normally very nervous when it comes to start the process. Partly because most of the infrastructure investment is a sunk cost, and partly of because of the pressure from its stakeholder for output and outcome oriented projects. It is why technical and management capacity of the city government and its officials need to be improved before capital investment take place. To this end, technical and financial assistance from various organizations are necessary to ensure the success of the implementation.

4. From the structure of the Cities budget, fund purely allocated for development merely amounts for about 5-35% of the total budget. The rest of the budget is used to pay city government staff salary. And if one looks at the local budget based on the structure of public sector funding, the largest expense allocation for public service is education and culture sectors. Environment sector is only

allocated less than 10% from local government expenditure. The amount of the local budget allocated by the government for the implementation of development programs, including the environmental programs, gives significant influence to the success of the programmes. Looking at the minimum amount of development budget (particularly for environment program), City Government can make cooperation with private sector and business community where they could participate in promoting livable city and reducing air pollution problems particularly related to GHG. This will include private capital investment in infrastructure development and the development of incentive and disincentive scheme for business entities participating in protecting the environment.

5. During the course of program planning, there are several lessons learned as follows:
 - a. City Governments should be willing to take the risk because in every decision that is made, there will be gainers and losers. There will be people who benefit most from the project and there are people who will be dis-benefited from the decision. The city has to make sure that the decision is made with careful consideration, just and equitable principles.
 - b. Indonesia is currently experiencing a rapid and often unpredicted change in its development. It is politically changing. Its democracy is challenged by the needs for long term commitment. It is why we have to navigate our development plan in a fast changing political climate. It needs to have a robust concept but flexible implementation schemes.
 - c. The participation of NGO. At the moment we are facing a dilemma with our NGO. We witness that Indonesian NGO is also in transition. While the city believes that NGO plays an important role in communicating the voice of interest groups and the community, it is also understood that they also need to increase their capacity to advocate the principles of sustainable development. Some of them are providing a substantial contribution during the planning, implementation and monitoring stages of a project.
 - d. The importance of the support from appropriate Technical Assistance, both from International and National organizations as well as local organization like universities. Organizations like ICLEI are as important as various donor organizations already operating in the cities like The World Bank, ADB, USAID, GTZ, etc.
 - e. The cities need to built technical, management and financial capacity to deal with environment issues. They will not only bring self esteem to the administration, but also creating a trust between government, private sector and the civil society.

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<http://www.surabaya.go.id/>

Annex 1

List of Respondents

No	Name	Position	Affiliation	Phone/Fax/Mobile	Email
1.	Drs. Suhartono, ST	Chairman	Commission III of City Council	+62-274-540650 +62-274-540651 +62-81578651330	dprd@jogja.go.id
2.	Mr. Hari Setyowacono, ST., MT	The Head of Control, Evaluation and Report Section	BAPPEDA Yogyakarta City	+62-274-515865 +62-274-515866 +62-81578706180	
3.	Sumedi, S.T	Staff	Yogyakarta City Infrastructure Office	+62-274-586 795 +62-815 787 060 71	
4.	Pieter Lawoasal	Head of Environmental Monitoring and Liquid Waste Management Division	Yogyakarta City Environmental Office	+62-274- 515876 +62-816676573	lingkungan@jogja.go.id
5.	Ir. Aris Edi S., MT.	Assistant Manager of Marketing	PT. PLN Persero APJ Yogyakarta	+62-274-452200, 452111, 452460 +62-815 777 3341	susankiyono@pln.co.id
6.	Suparlan	Executive Director	WALHI	+62-818277178	berteles2004@gmail.com
7.	Aris Sustiyono	Director	LESTARI INDONESIA	+62-274- 6536781 +62-274-547174 +62-81578182988	aris_sustiyono@yahoo.com
8.	Suwarno	Chairman	LPMK of Tahunan Village, Kotagede	+62-274-520037	
9.	Heru, Afandi, Nugroho, Muslim	Community	RW-8 – 11 Cokrodiningratan Yogyakarta		
10.	Firstanto Didik	Journalist	Bernas Jogja	+62-812 271 0534	first_didik@yahoo.com
11.	Anik Puspitosari	Journalist	Kedaulatan Rakyat Jogja Chapter	+62-274-565685 +62-815 787 90 503	anike_25@yahoo.com
12.	Ir. I.B Udiyana	Chairman	Commission B for Environment Affairs, City Legislative	+62-361-237919 +62-361-237920	
13.	Ir. Ketut Sugiarta	Vice Chairman	Commission B for Environment Affairs, City Legislative	+62-361-237919 +62-361-237920	
14.	Dewa Puspawan	Head of Sub Division	Settlement and Regional Development, Bappeda Denpasar	+62-361-416400	

No	Name	Position	Affiliation	Phone/Fax/Mobile	Email
15.	Ir. Nyoman Brandi	Head of Sub Division	Administration Section of Environment Office	+62-81 7486690 +62-361- 223355	
16.	Ir. I Wayan Bawa	Instructor	Madra Farming, Office of Animal Husbandry	+62-361-229733	
17.	I Nyoman Suartana, ST	Staff	NGO Bali Fokus		
18.	Asmasluhur	Soybean Company Director	Pucuk Sari Neighbourhood		
19.	Huda Muryanto	Community	Pucuk Sari Neighbourhood	+62-81 933037157	
20.	Ida	Community	Pucuk Sari Neighbourhood		
21.	Ir. Togar Arifin Silaban, MEng	Head of Environment Control Office	City Government of Surabaya	+62-818304716	
22.	Dwi Ratna	Staff	Bappeko Surabaya	031-72654573	dwiratna_md@yahoo.com
23.	Chamida	Staff at Environment Control Office	City Government of Surabaya		
24.	Kuswoyo	Taxi Driver	Taxi Silver Surabaya		
25.	M. Imron Mashoed	Marketing	Jawa Pos Surabaya	+62888183136	-

Annex 2

Coefficient Value

Energy Coefficient

Fuel Type	CO ₂	(eCO ₂)N ₂ O	(eCO ₂)CH ₄	Nox	Sox	CO	VOC
Gasoline (Kg GHG/GJ)	69.174	0.186	0.42	0.6	0.04464	8	1.50E+00
Kerosene (Kg GHG/GJ)	71.736	0.1448	0.0639	0.16612	0	0.0342	0.00821
Solar	73.932	0.186	0.105	0.8	0.13846	1	0.2
Electricity (kg/kWh)	0.741	0.00231	0.00029	0.00218	0.00452	0.00108	4.85E-05

Source: ICLEI, 2002 adopted from IPCC (Intergovernmental Panel for Climate Change) 1999

Energy Density

Fuel Type	GJ/liter	GJ/ton	GJ/m ³
Electricity			
CHP Heat			
Hydrogen	0.0027		0.0142
Natural Gas		45.23	0.0387
CNG	0.007	45.23	0.0387
Landfill methane			0.0386
Sewage gas			0.0386
Biogas			0.0386
Gasoline /petrol	0.0329	44.81	
Diesel	0.0367	43.34	
Light Fuel oil	0.0289	40.27	
Heavy fuel oil	0.0288	40	
Kerosene	0.0314	43.76	
LPG	0.0247	47.32	
Jet fuel	0.0341	44.6	
Ethanol (E-10)	0.0329	43	
Ethanol (E-85)	0.0318	29.5	
Ethanol (E-100)	0.0296	26.8	
Coal		21.23	
Anthracite		26.65	
Bituminous coal		26.65	
Sub-Bituminous coal		18.01	
Lignite		10.61	
Peat		8.38	
Charcoal		29	
Coke		23.31	
Wood (Oven dry)	0.0092	20	
Wood (Freshly dry)	0.005	10.9	
Fuelwood (air dry)	0.0069	15	
MSW		11	
Refuse derived waste		11	
Agricultural waste		15	
Bagasse		8	
Dung		12	

Source: ICLEI, 2002 adopted from IPCC (Intergovernmental Panel for Climate Change) 1999

Annex 3

Tables and Figures of Yogyakarta City

Table Annex 3.1 Area Distribution of Yogyakarta City

No	District	Width (km ²)	Number of		
			Village	Sub Village	Neighbourhood
1	Mantrijeron	2.61	3	55	230
2	Kraton	1.40	3	43	175
3	Mergangsan	2.31	3	60	219
4	Umbulharjo	8.12	7	80	318
5	Kotagede	3.07	3	40	161
6	Gondokusuman	3.99	5	65	276
7	Danurejan	1.10	3	43	160
8	Pakualaman	0.63	2	19	84
9	Gondomanan	1.12	2	31	110
10	Ngampilan	0.82	2	21	120
11	Wirobrajan	1.76	3	34	165
12	Gedongtengen	0.96	2	44	163
13	Jetis	1.70	3	36	168
14	Tegalrejo	2.91	4	46	183
TOTAL		32.50	45	617	2,532

Source : Yogyakarta City in Figures, 2001

Table Annex 3.2 Number of Population of Yogyakarta City

No.	District	Year							
		2000	2001	2002	2003	2004	2005	2006	2007
1	Mantrijeron	38,736	39,242	39,693	32,730	32,659	35,718	36,364	41,450
2	Kraton	31,763	32,072	32,184	19,168	19,857	21,700	22,093	29,492
3	Mergangsan	41,155	41,700	42,193	30,093	31,488	34,426	35,049	42,954
4	Umbulharjo	65,252	66,912	69,293	71,375	69,479	75,996	77,371	75,989
5	Kotagede	27,733	28,408	28,980	29,358	27,979	30,608	31,162	33,018
6	Gondokusuman	72,233	72,811	73,730	47,195	48,617	53,160	54,122	76,302
7	Danurejan	30,431	30,642	30,840	18,517	19,822	21,673	22,064	32,884
8	Pakualaman	14,608	14,790	14,762	9,736	10,628	11,621	11,831	14,923
9	Gondomanan	20,130	20,532	20,625	14,266	13,935	15,222	15,498	17,873
10	Ngampilan	22,989	23,052	23,189	17,558	17,627	19,262	19,611	23,758
11	Wirobrajan	29,778	30,139	30,533	26,329	26,693	29,217	29,746	32,343
12	Gedongtengen	25,915	26,448	26,398	17,330	17,926	19,592	19,947	26,876
13	Jetis	37,552	37,959	38,268	23,736	26,038	28,480	28,995	38,531
14	Tegalrejo	38,350	39,128	39,726	34,848	35,256	38,561	39,258	42,396
Total		496,625	503,835	510,414	392,239	398,004	435,236	443,111	528,789

Source: Yogyakarta City in Figures, 2000 - 2007

Table Annex 3. 3 Population Density of Regencies/Cities in DIY Province

Regency/ City	Width		Year							
	Km ²	%	2000	2001	2002	2003	2004	2005	2006	2007
Kulonprogo	586.27	18.4	NA	NA	631.59	639.9	641.14	NA	638	NA
Bantul	506.85	15.91	1,450	1,461	1,468	1,486	1,491	1,510	1,484	NA
Gunungkidul	1,485.36	46.63	NA	NA	453.23	461.57	462.33	NA	460	NA
Sleman	574.82	10.04	1,433	1,454	1,475	1,490	1,510	1,528	1754	NA
Yogyakarta	32.5	1.02	15,281	15,503	15,705	12,069	12,246	13,392	13,634	16,270
DIY Province	1700.44	100	NA	NA	1,084.82	1,101.47	1,103.47	NA	NA	NA

Source: Bantul, Sleman, Yogyakarta in Figures, 2000 – 2007, <http://www.pemda-diy.go.id/>, and DIY Province in Figures 2007

Table Annex 3. 4 Condition of Primary and Secondary Education in Yogyakarta City, Year 2007

DISTRICT	KINDERGARTEN			ELEMENTARY			JUNIOR HIGH SCHOOL			SENIOR HIGH SCHOOL		
	UNIT	STU-DENTS	TEA-CHER	UNIT	STU-DENTS	TEA-CHER	UNIT	STU-DENTS	TEA-CHER	UNIT	STU-DENTS	TEA-CHER
Mantrijeron	18	945	70	13	2215	159	4	1089	94	4	1114	133
Kraton	13	498	49	11	2152	164	2	1019	76	1	43	15
Mergangsan	17	788	65	16	3158	200	6	855	111	3	789	94
Umbulharjo	29	1895	152	25	6117	415	9	2644	227	8	2447	268
Kotagede	17	1016	71	19	3403	225	3	1302	114	3	1139	106
Gondokusuman	24	1267	128	23	8258	436	11	4914	382	9	5306	469
Danurejan	10	354	30	10	2048	141	3	1818	156	-	-	-
Pakualaman	9	358	35	6	967	73	1	397	32	-	-	-
Gondomanan	6	646	37	9	2363	132	2	1372	80	4	1589	127
Ngampilan	8	526	35	9	1976	126	2	1056	63	1	250	31
Wirobrajan	16	759	56	13	2791	183	2	1030	76	5	2293	186
Gedongtengen	11	567	36	8	1484	70	3	1464	105	2	64	30
Jetis	15	766	57	19	4520	288	7	2238	201	4	1254	144
Tegalrejo	14	916	77	16	3772	240	3	1154	96	4	2620	200
TOTAL	207	11,301	898	197	45,224	2,852	58	22,352	1,813	48	18,908	1,803

Source: Yogyakarta in Figures, 2007

Table Annex 3. 5 Inflation Rate of Yogyakarta City in 2003-2007

Year	Inflation Rate (%)		
	Yogyakarta	DIY Province	Indonesia
2003	5.73	5.73	6.60
2004	6.95	6.95	6.06
2005	14.98	14.98	10.40
2006	10.41	NA	NA
2007	7.99	NA	NA

Source : Yogyakarta City in Figures, 2007, Indonesian Statistic Data, 2008

Table Annex 3. 6 Result of Ambient Air Quality Test in Yogyakarta City for the Period of January - August 2006

No.	Location	Parameter			
		CO µg/m ³	Dust µg/m ³	SO ₂ µg/m ³	Pb µg/m ³
1	Malioboro Street	10,390	142.67	5.67	1.50
2	Simpang Gramedia	10,220	226.57	10.927	0.56
3	Batas Kota Laksda Adi Sutjipto	10,292	289.89	21.12	0.52
4	Borobudur Plaza	9,122	149.60	5.40	0.14
5	Kusumanegara Street	10,990	398.14	33.688	0.56
6	Kantor Pos Besar	10,200	278.81	24.03	0.37
7	Simpang Wirobrajan	10,700	172.88	20.308	0.38
8	Jlagran	10,600	203.50	34.96	0.24
9	Simpang Tugu	13,500	266.57	10.92	1.60
10	Simpang Kotagede	11,500	284.75	6.56	0.42
11	C Simanjuntak Street	6,900	119.82	27.97	1.40

Note :

Standard Value of Ambient Quality

CO : 30.000 µg/m³ Dust : 230 µg/m³

SO₂ : 1300 µg/m³ Pb : 2 µg/m³

Source : Environmental Office of Yogyakarta City, 2006

Table Annex 3.7 Policies and Programmes of Regional Development in Environment Sector and Public Streetlight Programme

MISSION	POLICY	PROGRAMME	INDICATIVE CEILING (million IDR)					Total
			2007	2008	2009	2010	2011	
Mission 4 Developing Yogyakarta City into a comfortable and environmentally friendly city	Improving development and control on activities that potentially will result in environment pollution.	Improvement of control on environment pollution and destruction	2,500	2,850	3,000	3,550	4,300	16,200
	Improving the quality of environment in order to guarantee the ability, prosperity and life quality of the current generation and the next generation.	Development of waste management performance	2,700	2,850	3,000	3,250	4,100	15,900
		Development of liquid waste management	2,160	2,280	2,400	3,000	3,250	13,090
	Integrating natural environment and religious, social, cultural and local wisdom value environment into the development process.	Green Space Management	1,700	1,900	2,000	2,500	3,000	11,100
Mission 8 Realizing the development of quality facilities and infrastructures	Providing appropriate basic public facilities and infrastructures in inner-city area and urban area in collaboration with the neighbouring region through Joint Secretary of KARTAMANTUL, or private sector.	Improvement/maintenance of irrigation and drainage tunnel	2,217	2,340	2,464	5,710	2,587	15,318
	Improving the structure of area in accordance to the Urban Regional Spatial Plan.	Development of details of Regional Spatial Plan and Regional Detail Plan	610	644	678	945	1,000	3,877
		Rehabilitation/maintenance of road and bridge	9,615	10,149	10,684	11,752	11,217	53,417
	Improving quality of and accessibility to public facilities and infrastructures.	Programme on transportation facilities and infrastructure development	2,837	1,056	837	1,967	1,917	8,614
		Programme on Road Traffic Facilities and Infrastructures rehabilitation and maintenance	303	439	439	750	440	2,371
		Programme on traffic management improvement	781	564	570	750	422	3,087

Table Annex 3.7 **Continued**

MISSION	POLICY	PROGRAMME	INDICATIVE CEILING (million Rupiah)					Total
			2007	2008	2009	2010	2011	
	Improving the function of kampung as the subject of regional-based development and as a place for community interaction in terms of social, cultural, economy and environmental aspect	Management of basic settlement facilities and infrastructures, Maintenance and development of housing and settlement	2,349	2,479	2,610	3,190	3,740	14,368
	Improving partnership with community and private sectors in developing basic settlement and urban facilities and infrastructures.	Improvement/ maintenance of public streetlight	7,246	7,649	8,052	8,157	8,454	39,558
		Programme on transportation service improvement	718	1,053	1,053	1,303	1,473	5,600
		Programme on Improvement of Alertness toward Natural Disaster Tackling	500	986	659	675	700	3,520

Source: Regulation of Yogyakarta Mayor No. 17 of 2007 regarding Yogyakarta City RPJMD

Table Annex 3. 8 Revenues of City Government of Yogyakarta (IDR)

DESCRIPTION		2001	2002	2003	2004	2005	2006	2007
I	REGIONAL ORIGINAL REVENUES							
1	Regional Tax Revenue	NA	NA	33,526,514,267	40,581,980,256	46,106,723,374	43,997,150,025	54,783,202,892
2	Regional Retribution Revenue	NA	NA	6,093,220,398	18,995,046,383	22,797,438,571	24,704,781,396	29,197,466,013
3	Regional Profit-Share Revenue	NA	NA	4,081,649,388	5,285,786,650	6,651,534,800	7,722,505,202	8,783,239,359
4	Other Regional Original Revenues	NA	NA	14,920,180,256	15,048,605,811	13,640,720,038	19,995,019,680	21,334,442,677
	Total Original Revenue	NA	NA	68,621,564,311	79,911,419,100	89,196,416,784	96,419,456,304	114,098,350,942
II	BALANCING FUND							
1	Tax and Non-Tax Sharing	NA	NA	32,300,731,328	37,889,440,614	37,894,010,508	40,145,140,985	47,329,224,538
2	General Allocation Fund	NA	NA	196,100,000,000	197,787,000,000	201,231,000,000	316,832,000,000	365,042,000,000
3	Special Allocation Fund	NA	NA	4,200,000,000	5,500,000,000	6,600,000,000	4,800,000,000	26,788,000,000
4	Tax and Grant Sharing from Provincial Government	NA	NA	20,912,000,015	28,791,189,586	43,532,610,253	35,373,712,961	
	Total Balancing Fund	NA	NA	253,512,731,343	269,967,630,200	289,257,620,761	397,150,853,946	439,159,224,538
III	OTHER LEGITIMATE REVENUES							
1	Contingency Grant/Balancing from the Government	NA	NA	NA	6,471,829,733	-	-	15,604,974,000
2	Ad Hock Adjustment Fund	NA	NA	NA	13,299,000,000	11,943,000,000	15,000,000,000	2,917,756,400
3	Grant	NA	NA	NA	-	-	10,451,927,071	6,288,730,100
4	Fund of Tax Sharing from Provincial and other Regional Government	NA	NA	NA	-	-	-	37,579,816,500
5	Emergency Fund	NA	NA	NA	-	-	-	-
	Total Other Legitimate Revenues	NA	NA	16,496,466,000	19,770,829,733	13,432,864,500	25,451,927,071	62,391,277,000
	TOTAL REVENUE	243,769,299,493	303,020,070,537	338,630,761,654	369,649,879,034	391,886,902,046	519,022,237,321	615,648,852,480

Source: Report of Regional Revenue and Expenditure Plan Implementation, BAPPEDA of Yogyakarta City, 2008

Table Annex 3. 9 Expenditure of City Government of Yogyakarta (IDR)

DESCRIPTION		2001	2002	2003	2004	2005	2006	2007
I REGIONAL APPARATUS EXPENDITURE								
1	General Administration Expenditure	NA	NA	19,447,043,068	29,273,749,713	28,980,600,331	36,737,618,808	NA
2	Operational and Maintenance Expenditure	NA	NA	16,480,358,307	18,633,614,	20,844,064,912	17,833,888,429	NA
3	Capital/Developmental Expenditure	NA	NA	17,023,110,756	10,444,241,517	14,566,259,826	3,294,805,480	NA
	Total Regional Apparatus Expenditure	NA	NA	52,950,512,131	58,351,605,850	64,390,925,069	57,866,312,717	NA
II PUBLIC SERVICE EXPENDITURE								
1	General Administration Expenditure	NA	NA	166,942,266,025	188,939,446,086	188,968,325,856	238,144,704,482	NA
2	Operational and Maintenance Expenditure	NA	NA	26,813,257,737	36,817,724,255	43,301,882,300	55,504,444,118	NA
3	Capital/Developmental Expenditure	NA	NA	41,117,455,909	50,260,339,372	55,621,387,991	76,107,251,594	NA
4	Profit Share and Financial Grant Expenditure	NA	NA	17,172,995,474	30,974,792,481	45,118,547,802	59,411,518,162	NA
5	Incidental Expenditure	NA	NA	354,545,150	4,996,667,725	1,843,536,350	9,734,745,979	NA
	Total Public Service Expenditure	NA	NA	252,400,520,295	311,988,969,919	334,853,680,300	438,902,664,335	NA
TOTAL EXPENDITURE		243,769,299,493	303,020,070,537	305,351,032,427	370,340,575,770	399,244,605,370	496,768,977,052	483,453,112,088

Source: Report of Regional Revenue and Expenditure Plan Implementation, BAPPEDA of Yogyakarta City, 2008

Table Annex 3.10 Financing of City Government of Yogyakarta (IDR)

DESCRIPTION		2001	2002	2003	2004	2005	2006	2007
I	FINANCING REVENUE							
1	Residual Surplus of Previous Year Budget Calculation	-	-	57,456,145,471	77,137,955,980	73,659,073,376	76,983,970,898	90,610,460,325
2	Transfer to Reserved Fund	-	-	-	18,500,000,000	19,036,041,445	-	-
3	Load and Obligation Revenue	-	-	-	-	-	-	-
4	Earnings from Separated Regional Asset Sale	-	-	-	-	-	-	-
5	Grant	-	-	10,769,529,417	-	-	-	-
	Total Financing Revenue	-	-	68,225,674,888	95,637,955,980	92,695,114,821	76,983,970,898	90,610,460,325
II	FINANCING EXPENDITURE							
1	Transfer to Reserved Fund	-	-	5,530,465,622	11,267,142,598	-	-	-
2	Capital Participation	-	-	17,836,550,642	8,489,379,793	6,446,041,672	2,245,004,321	-
3	Payment of Short-term Debt	-	-	1,000,431,870	2,568,468,483	1,032,398,926	5,083,766,520	958,824,221
4	Residual Surplus of Budget Calculation	-	-	77,137,955,980	72,622,268,370	76,983,970,898	90,610,460,325	-
5	Credit for Region	-	-	-	-	875,000,000	1,298,000,000	1,412,000,000
	Total Financing Expenditure	-	-	101,505,404,115	94,947,259,245	85,337,411,497	96,992,226,845	2,370,824,221
	TOTAL FINANCING	-	-	(33,279,729,226)	690,696,735	7,357,703,324	(20,008,255,947)	88,239,636,104

Source: Report of Regional Revenue and Expenditure Plan Implementation, BAPPEDA of Yogyakarta City, 2008

Table Annex 3.11 Public Sector Financing Sector Based (IDR)

Sector	2001		2002		2003		2004		2005		2006		2007	
	Nominal	%	Nominal	%	Nominal	%	Nominal	%	Nominal	%	Nominal	%	Nominal	%
Government Public Administration	NA	NA	NA	NA	80,459,489,053	26%	99,001,680,520	27%	102,075,282,643	26%	166,195,220,469	33%	186,615,707,898	33%
Agriculture	NA	NA	NA	NA	2,187,291,332	1%	2,482,865,538	1%	3,835,197,420	1%	3,085,233,914	1%	7,595,291,865	1%
Industry and Commerce	NA	NA	NA	NA	10,185,489,032	3%	10,737,129,547	3%	11,938,736,836	3%	11,902,912,801	2%	15,942,909,352	3%
Manpower	NA	NA	NA	NA	1,772,515,076	1%	2,064,474,431	1%	2,180,813,399	1%	2,909,564,664	1%	3,137,077,667	1%
Health	NA	NA	NA	NA	17,167,113,626	6%	28,596,327,796	8%	33,449,200,916	8%	40,038,690,934	8%	48,532,382,954	9%
Education and Culture	NA	NA	NA	NA	112,221,684,579	37%	130,147,568,785	35%	131,475,751,735	33%	141,937,967,797	29%	176,274,696,442	31%
Social	NA	NA	NA	NA	3,630,156,188	1%	5,469,416,429	1%	7,165,381,036	2%	5,277,658,678	1%	4,734,965,379	1%
Settlement	NA	NA	NA	NA	1,669,984,302	1%	1,691,616,701	0%	1,813,538,404	0%	2,506,437,563	1%	6,418,223,717	1%
Public Works	NA	NA	NA	NA	49,294,972,427	16%	49,863,540,602	13%	61,832,427,995	15%	91,671,107,959	18%	36,480,898,629	6%
Transportation	NA	NA	NA	NA	4,070,491,823	1%	8,644,456,031	2%	6,471,289,737	2%	5,178,623,142	1%	16,557,734,035	3%
Environment					12,769,217,488	4%	16,059,024,650	4%	19,608,126,760	5%	18,614,461,442	4%	22,280,994,286	4%
Demography	NA	NA	NA	NA	1,950,223,678	1%	4,033,754,435	1%	4,213,402,115	1%	4,113,365,196	1%	4,714,575,851	1%
Sports	NA	NA	NA	NA	4,333,081,580	1%	6,966,539,756	2%	8,864,641,822	2%	981,529,841	0%	952,782,976	0%
Tourism	NA	NA	NA	NA	3,562,504,176	1%	4,501,336,239	1%	4,145,441,038	1%	2,231,924,502	0%	3,044,346,744	1%
Land	NA	NA	NA	NA	76,818,068	0%	80,844,310	0%	175,353,515	0%	124,278,150	0%	-	-
Local Gov Business	NA	NA	NA	NA	-	-	-	-	-	-	-	-	28,965,129,428	5%
Loan/Debt and Interest instalment	NA	NA	NA	NA	-	-	-	-	-	-	-	-	-	-
Expenditure excluded from other sector	NA	NA	NA	NA	-	-	-	-	-	-	-	-	6,872,655,335	1%
Contingency expenditure	NA	NA	NA	NA	-	-	-	-	-	-	-	-	-	-
Subsidy and Grant Reward	NA	NA	NA	NA	-	-	-	-	-	-	-	-	-	-
Nation Integrity and Domestic Politics	NA	NA	NA	NA	-	-	-	-	-	-	-	-	-	-
Total	243,769,299,494	100%	303,020,070,538	100%	305,351,032,427	100%	370,340,575,770	100%	399,244,585,370	100%	496,768,977,052	100%	569,120,372,558	100%

Source: Report of Regional Revenue and Expenditure Plan Implementation, BAPPEDA of Yogyakarta City, 2008

Annex 4

Tables and Figures of Denpasar City

Table Annex 4.1 Area Distribution of Denpasar City

No	District	Width (km ²)	Village	Number of			
				Village		Banjar	
				Official	Tradition	Official	Tradition
1	West Denpasar	49.99	3	11	2	112	106
2	North Denpasar	22.54	3	11	10	98	99
3	East Denpasar	24.13	4	11	12	85	97
4	South Denpasar	31.12	6	10	11	104	84
TOTAL		127.78	16	43	35	399	386

Source: Denpasar City in Figures, 2007

Table Annex 4.2 Number of Population of Denpasar City

No.	District	Year						
		2000	2001	2002	2003	2004	2005	2006
1	South Denpasar	149,653	156,896	161,111	167,802	161,424	163,138	167,358
2	East Denpasar	140,549	147,603	149,042	155,233	149,332	153,212	110,272
3	West Denpasar	232,179	261,136	251,661	262,113	252,151	258,605	168,580
4	North Denpasar	-	-	-	-	-	-	137,390
Number/Total		522,381	565,635	561,814	585,148	562,907	574,955	583,600

Source: Denpasar City in Figures, 2000 - 2006, processed data

Table Annex 4.3 Population Density of Regencies/Cities in Bali Province

Regency/ City	Width		Year						
	Km ²	%	2000	2001	2002	2003	2004	2005	2006
Jembrana	841.80	14.94	256	257	259	261	263	267	299
Tabanan	839.33	14.90	456	461	466	469	474	483	489
Badung	418.52	7.43	760	782	817	839	856	895	886
Denpasar	123.98	2.20	3,218	3,378	3,450	2,516	3,599	3,742	3,697
Gianyar	368.00	6.53	999	1,008	1,014	1,021	1,030	1,042	1,052
Klungkung	315.00	5.59	524	526	529	533	540	542	548
Bangli	520.81	9.25	381	382	383	402	403	405	407
Karangasem	839.54	14.90	440	451	458	463	464	471	482
Buleleng	1,365.88	24.25	426	428	431	437	445	453	471
Bali Province	5,632.86	100	532	541	549	557	565	537	579

Source: Denpasar City in Figures, 2003 - 2007

Table Annex 4. 4 Condition of Primary and Secondary Education in Denpasar City, 2006

DISTRICT	KINDERGARTEN			ELEMENTARY SCHOOL			JUNIOR HIGH SCHOOL			SENIOR HIGH SCHOOL		
	UNI T	STU DENTS	TEA CHER	UNI T	STU DENTS	TEA CHER	UNIT	STU DENTS	TEA CHER	UNI T	STU DENTS	TEA CHER
South Denpasar	38	1,028	94	53	18,179	655	10	5,444	381	13	7,561	530
East Denpasar	45	839	250	47	15,259	677	16	7,923	543	23	13,752	1,007
West Denpasar	59	1,485	379	54	24,360	922	18	13,160	810	10	7,625	338
North Denpasar	53	867	317	53	16,003	781	-	-	-	-	-	-
TOTAL	195	4,219	1,040	207	73,801	3,035	44	26,527	1,734	46	28,938	195

Source: Denpasar City in Figures, 2006, processed data

Table Annex 4. 5 Inflation Rate of Denpasar City in 2002-2006

Year	Inflation rate (%)		
	Denpasar	Bali Province	Indonesia
2002	12.49	12.49	NA
2003	4.56	4.56	6.60
2004	5.97	5.97	6.06
2005	11.31	11.31	10.40
2006	4.30	NA	NA

Source: Denpasar City in Figures, 2007

Table Annex 4. 6 Result of Ambient Air Quality Test in Denpasar City in 2006

No.	Location	Parameter					
		Dust µg/m ³	Pb µg/m ³	CO µg/m ³	SO ₂ µg/m ³	NO ₂ µg/m ³	O ₃ µg/m ³
1	Gunung Agung Street (In front of West Denpasar District Office)	687,700	0.472	432,400	153,773	41,395	25,690
2	Gajah Mada Street (In front of Denpasar Mayor Office)	323,625	0.566	432,432	110,221	25,641	16,345
3	Jempiring Street (In front of City Environment Office)	121,359	0.660	384,384	104,138	29,821	19,675
4	Supratman Street (In front of East Denpasar District Office)	323,625	0.114	624,625	122,490	32,407	14,708
5	Sudirman Street (SMAN 2 Denpasar)	525,890	0.692	480,480	122,490	26,447	31,048
6	Melati Street (In front of GOR Ngurah Rai)	289,885	0.843	1280	18,730	67,036	-
7	A Yani Street	185,360	0.157	746,660	56,570	37,950	-
8	Imam Bonjol Street	180,180	0.254	480,000	53,670	25,710	-

Source: Denpasar City Environment Office, 2006

Note:

Standard Value of Ambient Quality

CO : 30,000 µg/m³ Dust : 230 µg/m³

SO₂ : 1300 µg/m³ Pb : 2 µg/m³

Table Annex 4. 7 Revenues of City Government of Denpasar (IDR)

DESCRIPTION		2001	2002	2003	2004	2005	2006	2007
I	REGIONAL ORIGINAL REVENUE							
1	Regional Tax Revenue	50,880,000,000	61,800,000,000	53,850,000,000	56,380,000,000	59,880,000,000	69,770,000,000	71,450,000,000
2	Regional Retribution Revenue	10,345,820,000	22,088,351,011	21,171,000,000	26,398,945,000	23,552,905,996	31,729,805,000	37,535,955,000
3	Regional Profit-Share Revenue	600,000,000	3,284,037,799.49	3,360,381,855	3,279,000,000	3,609,716,000	4,138,193,000	4,640,659,423
4	Other Regional Original Revenues	757,465,000	3,865,475,000	4,221,324,800	7,294,200,000	2,884,450,000	4,792,330,000	6,089,338,079
	Total Original Revenue	62,583,285,000	91,037,863,810	82,602,706,655	93,352,145,000	89,927,071,996	110,430,328,000	119,715,952,502
II	BALANCING FUND							
1	Tax and Non-Tax Sharing	12,184,000,000	21,819,064,958	28,534,000,000	30,500,000,000	34,100,000,000	39,600,000,000	51,068,805,631
2	General allocation Fund	147,137,600,000	166,770,000,000	176,987,000,000	176,990,000,000	187,085,000,000	283,845,000,000	331,448,000,000
3	Special Allocation Fund	-	-	-	-	7,420,000,000	18,850,000,000	7,935,000,000
4	Tax and Grant Sharing from Provincial Government	-	-	-	17,184,040,000	26,781,994,000	32,090,720,000	-
	Total Balancing Fund	62,583,285,000	188,589,064,958	205,521,000,000	224,674,040,000	255,386,994,000	374,385,720,000	390,451,805,631
III	OTHER LEGITIMATE REVENUES							
1	Contingency Grant/Balancing from the Government	74,167,841,693.33	33,393,604,180	23,693,934,350	16,731,000,000	10,170,000,000	2,143,000,000	1,754,840,000
2	Ad Hoc Adjustment Fund	0	0	0	0	0	0	0
3	Grant	0	0	0	0	0	0	0
4	Fund of Tax Sharing from Provincial and other regional Government	952,998,666.67	12,463,197,000	11,403,634,000	0	0	0	36,731,184,000
5	Emergency Fund	0	0	0	0	0	0	0
	Total Other Legitimate Revenues	75,120,840,360	45,856,801,180	35,097,568,350	16,731,000,000	10,170,000,000	2,143,000,000	39,356,154,000
	TOTAL REVENUES	200,287,410,360	325,483,729,948	323,221,275,005	334,757,185,000	355,484,065,996	486,959,048,000	549,523,912,133

Source: Denpasar City BAPPEDA, 2008

Table Annex 4. 8 Expenditure of City Government of Denpasar (IDR)

	DESCRIPTION	2001	2002	2003	2004	2005	2006	2007
I	REGIONAL APPARATUS EXPENDITURE							
1	General administration Expenditure	NA	NA	NA	202,125,007,100	216,855,415,746	267,283,383,350	NA
2	Operational and Maintenance Expenditure	NA	NA	NA	18,972,280,650	19,143,388,810	21,222,926,650	NA
3	Capital /Developmental Expenditure	NA	NA	NA	1,928,528,500	2,184,861,800	10,738,409,400	NA
	Total Regional Apparatus Expenditure	NA	NA	NA	223,025,816,250	238,183,666,356	299,244,719,400	NA
II	PUBLIS SERVICE EXPENDITURE							
1	General administration Expenditure	NA	NA	NA	19,506,514,500	13,460,840,000	13,126,978,000	NA
2	Operational and Maintenance Expenditure	NA	NA	NA	48,967,839,645	55,263,028,705	106,292,918,320	NA
3	Capital /Developmental Expenditure	NA	NA	NA	15,378,646,450	9,244,276,720	38,464,316,610	NA
4	Profit Share and Financial Grant Expenditure	NA	NA	NA	31,206,144,000	38,074,085,060	39,357,807,070	NA
5	Incidental Expenditure	NA	NA	NA	2,500,000,000	2,500,000,000	1,500,000,000	NA
	Total Public Service Expenditure	NA	NA	NA	117,559,144,595	118,542,230,485	198,742,020,000	NA
	TOTAL EXPENDITURE	200,287,410,360	325,483,729,948	323,221,275,005	340,584,960,845	356,725,896,841	497,986,739,400	554,160,700,933

Source: Denpasar City BAPPEDA, 2008

Table Annex 4. 9 Financing of City Government of Denpasar (IDR)

	DESCRIPTION	2001	2002	2003	2004	2005	2006	2007
I	FINANCING REVENUE							
1	Residual Surplus of Previous Year Budget Calculation	-	-	-	6,797,775,845	1,241,830,845	11,027,691,400	6,636,788,800
2	Transfer to Reserved Fund	-	-	-	-	-	-	-
3	Loan and Obligation Revenue	-	-	-	-	-	-	-
4	Earnings from Separated Regional Asset Sale	-	-	-	-	-	-	-
5	Grant	-	-	-	-	-	-	-
	Total Financing Revenue	-	-	-	6,797,775,845	1,241,830,845	11,027,691,400	6,636,788,800
II	FINANCING EXPENDITURE							
1	Transfer to Reserved Fund	-	-	-	-	-	-	-
2	Capital Participation	-	-	-	970,000,000	-	-	2,000,000,000
3	Payment of Short-term Debt	-	-	-	-	-	-	-
4	Residual Surplus of Budget Calculation	-	-	-	-	-	-	-
5	Credit for Region	-	-	-	-	-	-	-
	Total Financing Expenditure	-	-	-	970,000,000	-	-	-
	TOTAL FINANCING	-	-	-	5,827,775,845	1,241,830,845	11,027,691,400	4,636,788,800

Source: Denpasar City BAPPEDA, 2008

Table Annex 4.10 Public Sector Financing by Sectors of Denpasar City (IDR)

Sector	2004		2005		2006		2007	
	Nominal	%	Nominal	%	Nominal	%	Nominal	%
Governmental Public Administration	125,467,726,650	37%	131,895,242,747	38%	147,033,051,077	30%	111,851,372,720	22%
Agriculture	4,685,375,050	1%	5,447,251,787	2%	10,685,458,500	2%	11,178,884,812	2%
Industry and Commerce	1,472,120,200	0%	1,603,926,250	0%	2,770,811,300	1%	3,238,768,092	1%
Cooperation	1,397,235,000	0%	1,181,122,000	0%	1,530,439,400	0%	2,511,486,117	0%
Manpower	706,722,500	0%	778,729,000	0%	1,062,034,000	0%	1,218,606,416	0%
Health	32,756,417,500	10%	36,406,915,680	11%	57,759,002,693	12%	67,346,185,242	13%
Education and Culture	124,442,602,700	37%	125,039,933,460	36%	165,463,300,000	33%	186,671,514,703	37%
Social	1,730,383,000	1%	1,443,697,000	0%	2,217,330,700	0%	2,443,661,045	0%
Settlement	2,961,949,000	1%	2,581,238,000	1%	4,192,797,300	1%	4,373,610,178	1%
Public Works	11,290,391,845	3%	2,581,238,000	1%	44,954,025,880	9%	41,680,445,926	8%
Transportation	8,265,239,500	2%	6,820,406,736	2%	15,780,492,150	3%	22,371,463,304	4%
Environment	20,505,640,400	6%	22,244,741,525	6%	35,331,931,900	7%	42,864,529,761	8%
Demography	2,910,767,000	1%	3,097,994,600	1%	6,520,627,200	1%	3,992,154,404	1%
Tourism	1,992,390,500	1%	2,047,025,000	1%	2,685,437,300	1%	3,733,560,485	1%
Total	340,584,960,845	100%	356,725,896,841	100%	497,986,739,400	100%	505,476,243,205	100%

Source: BAPPEDA of Denpasar City, 2008

Annex 5

Tables and Figures of Surabaya City

Table Annex 5.1 Area Distribution of Surabaya City

No	District	Width (km ²)	Village	Number of Neighbourhood	Sub Vilage
Central Surabaya					
1	Tegalsari	4.29	5	338	52
2	Genteng	4.04	5	318	64
3	Bubutan	3.86	5	418	53
4	Simokerto	2.59	5	368	61
North Surabaya					
5	Pabean Cantian	6.8	5	322	52
6	Semampir	8.76	5	567	72
7	Krembangan	8.34	5	400	37
8	Kenjeran	14.42	4	350	33
9	Bulak	-	5	110	22
East Surabaya					
10	Tambak Sari	8.99	6	626	74
11	Gubeng	7.99	6	518	63
12	Rungkut	21.08	6	355	67
13	Tenggilis Mejoyo	5.52	5	154	25
14	Gunung Anyar	9.71	4	156	29
15	Sukolilo	23.69	7	344	65
16	Mulyorejo	14.21	6	272	54
South Surabaya					
17	Sawahan	6.93	6	554	71
18	Wonokromo	8.47	6	513	58
19	Karangpilang	9.23	4	181	29
20	Dukuh Pakis	9.94	4	153	30
21	Wiyung	12.46	4	144	30
22	Wonocolo	6.78	5	223	41
23	Gayungan	6.07	4	165	33
24	Jambangan	4.19	4	116	24
West Surabaya					
25	Tandes	11.07	12	305	51
26	Sukomanunggal	9.23	5	262	24
27	Asemrowo	15.44	5	110	17
28	Benowo	45.79	5	122	22
29	Lakarsantri	36.48	6	150	30
30	Pakal	-	5	155	30
31	Sambikerep	-	4	203	37
TOTAL		326.37	163		

Source: Surabaya in Figures 2006

Table Annex 5. 2 Number of Population of Surabaya City

Year	Population
2000	2,618,930
2001	2,633,070
2002	2,647,280
2003	2,660,381
2004	2,681,092
2005	2,698,972
2006	2,716,971
2007	2,861,928

Source: Surabaya in Figures 2000 - 2007

Table Annex 5. 3 Condition of Primary and Secondary Education in Surabaya City, 2006

DISTRICT	UNIT			STU DENTS			TEA CHER			SENIOR HIGH SCHOOL		
	UNIT	STU DENTS	TEA CHER	UNIT	STU DENTS	TEA CHER	UNIT	STU DENTS	TEA CHER	UNIT	STU DENTS	TEA CHER
Central of Surabaya												
Tegalsari	50	3,384	181	54	12,564	496	13	4,656	265	2	2,429	125
Genteng	41	1,991	131	38	7,894	339	14	6,485	445	18	11,003	766
Bubutan	53	2,217	138	50	10,210	490	14	2,540	261	5	831	91
Simokerto	47	1,810	91	36	7,542	363	8	2,109	183	4	1,202	94
North Surabaya												
Pabean Cantian	25	1,396	53	25	5,341	237	7	3,266	225	3	1,955	133
Semampir	60	3,487	162	78	17,985	821	17	2,891	319	5	2,421	148
Krembangan	43	2,703	120	54	14,852	557	19	7,842	541	10	5,764	93
Kenjeran	49	3,071	117	35	12,941	426	10	7,336	368	3	1,490	84
East Surabaya												
Tambak Sari	97	5,679	245	72	19,530	687	21	7,496	745	10	3,302	288
Gubeng	76	4,244	336	56	14,702	586	16	5,233	478	13	4,769	378
Rungkut	47	3,082	209	23	5,687	310	8	4,225	363	4	1,793	148
Tenggiling Mejoyo	30	2,225	142	20	7,541	229	6	2,021	137	2	1,709	129
Gunung Anyar	21	1,454	84	14	6,341	184	6	690	80	0	0	0
Sukolilo	44	2,861	169	31	8,602	306	10	4,968	342	8	5,142	199
Mulyorejo	39	2,367	218	28	6,945	247	12	3,495	283	4	2,749	200
South Surabaya												
Sawahan	88	4,352	232	78	19,536	693	16	4,019	301	10	4,557	290
Wonokromo	76	4,064	217	60	13,622	631	18	8,141	580	8	4,501	281
Karangpilang	35	2,419	161	23	7,521	306	8	1,070	243	3	517	54
Dukuh Pakis	38	2,212	140	27	6,742	253	11	2,712	193	4	1,761	117
Wiyung	31	2,036	142	19	5,364	180	3	1,216	81	2	826	57
Wonocolo	27	2,330	111	27	8,524	336	9	3,139	239	6	2,406	199
Gayungan	26	1,365	86	14	5,980	157	4	2,037	109	2	2,447	184
Jambangan	12	1,047	39	16	6,321	169	7	3,156	284	5	1,323	146
West Surabaya												
Tandes	43	2,390	135	47	10,897	510	10	2,609	240	6	1,424	175
Sukomanunggal	42	3,297	176	39	9,654	332	12	5,324	555	6	2,201	166
Asemrowo	15	705	33	16	4,724	206	4	609	62	0	0	0
Benowo	22	1,106	59	17	4,824	237	1	37	13	2	890	36
Lakarsantri	23	1,406	79	18	8,325	203	8	2,848	294	5	1,289	84
Pakal	23	806	74	27	5,867	301	4	2,881	185	3	516	68
Sambikerep	16	736	57	16	4,638	164	7	1,996	170	3	534	85
TOTAL	1250	73,011	4,173	1,076	287,239	11,185	307	108,752	8,716	158	72,855	4,904

Source : Surabaya City in Ffigures, 2006

Table Annex 5. 4 Inflation Rate of Surabaya City 2002-2006

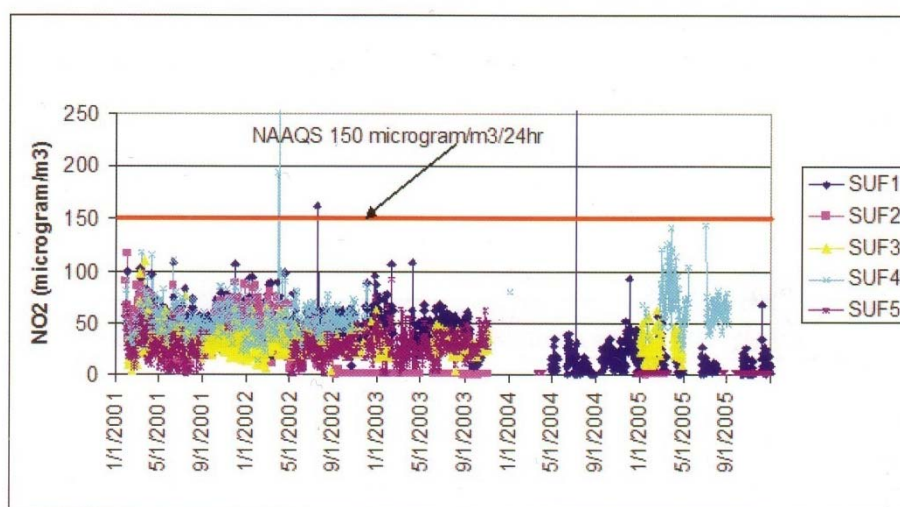
Year	Inflation rate (%)		
	Surabaya	East Java	Indonesia
2002	9.3	NA	NA
2003	7.68	3.6	6.60
2004	6.96	4.6	6.06
2005	14.12	5.8	10.40
2006	6.71	5.8	NA

Source :Surabaya City in Figures, 2006 and Bappeko Surabaya (2005), quoted from Study of Surabaya City GDP Formulation, 2004

Table Annex 5. 5 Location of Air Pollutant Monitoring Stations in Surabaya City

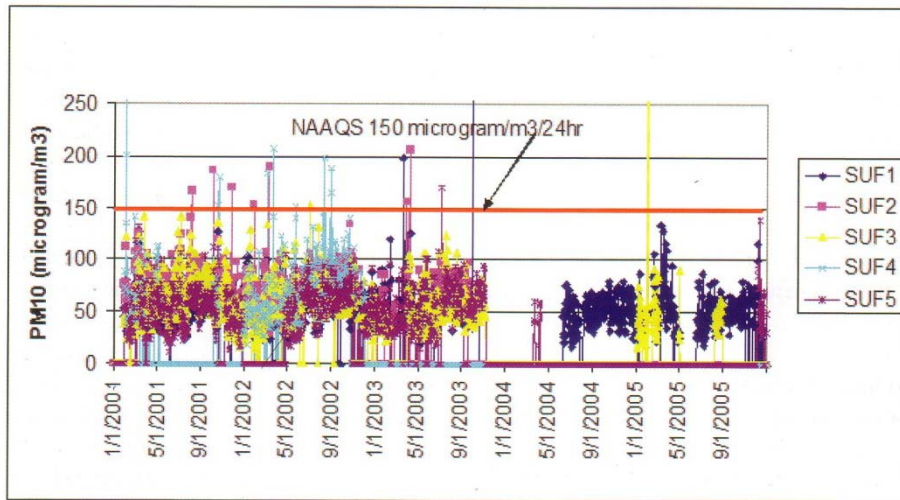
Station	Monitoring Location	Area	Area of
SUF 1	Prestasi Park Yard, Ketabang Kali Street	Centre Surabaya	Downtown, settlement, offices
SUF 2	Perak Timur Village Office Yard, Jl. Selangor	North Surabaya	Offices, industrial area nearby, warehousing
SUF 3	Assistant Mayor Office Yard of West Surabaya, Sukomanunggal Street	West Surabaya	Settlement, sub-urban area
SUF 4	Gayungan District Yard, Gayungan Street	South Surabaya	Settlement – near Suarabaya – Gempol Tollroad
SUF 5	Convention Hall Yard, Arif Rahman Hakim Street	East Surabaya	Settlement, Campus, Offices

Source: LSAP UAQi, Technical Cooperation Project Between Indonesia – Asian Development Bank (ADB), 2006



Source: LSAP UAQi, TECHNICAL COOPERATION PROJECT BETWEEN INDONESIA – ASIAN DEVELOPMENT BANK (ADB), 2006

Figure Annex 5. 1 The Average Daily Concentration of NO2 in several Monitoring Locations in Surabaya City, 2001-2005



Source: LSAP UAQi, Technical Cooperation Project between Indonesia – Asian Development Bank (ADB), 2006

Figure Annex 5. 2 The Average Daily Concentration of PM10 in Monitoring location of Surabaya City, 2001-2005

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Table Annex 5. 6 Revenues of City Government of Surabaya (IDR)

	DESCRIPTION	2001	2002	2003	2004	2005*	2006	2007	2008
I	REGIONAL ORIGINAL REVENUES								
1	Regional Tax Revenue	116,042,920,000	151,482,940,000	200,141,170,000	237,206,400,000	260,671,200,000	305,405,046,483	340,833,935,422	370,425,732,979
2	Regional Retribution Revenue	76,056,670,000	96,580,000,000	115,900,030,000	135,137,940,000	146,492,020,000	166,977,821,383 21,479,455,260	176,785,881,531	188,445,303,626
3	Regional Profit-Share Revenue	6,022,090,000	11,392,400,000	12,619,240,000	14,253,960,000	33,081,260,000		38,385,988,072	39,433,930,448
4	Other Regional Original Revenues	9,871,650,000	18,407,830,000	19,649,570,000	30,778,720,000	28,811,660,000	44,507,612,555	52,289,781,666	43,494,980,014
	Total Original Revenue	207,993,330,000	277,863,170,000	348,310,010,000	417,377,020,000	469,056,140,000	538,369,935,681	608,295,586,691	641,799,947,067
II	BALANCING FUND								
1	Tax and Non-Tax Sharing	178,949,820,000	207,277,980,000	282,324,950,000	351,162,060,000	321,267,090,000	432,387,358,243	527,146,589,791	449,212,395,797
2	General Allocation Fund	331,374,600,000	334,343,350,000	331,570,000,000	342,168,000,000	359,520,000,000	453,753,000,000	639,590,000,000	713,590,300,000
3	Special Allocation Fund	-	-	-	-	-	9,550,000,000	7,408,900,000	8,075,000,000
4	Tax and Grant Sharing from Provincial Government	46,081,890,000	100,706,310,000	151,280,350,000	184,102,530,000	169,889,310,000			
	Total Balancing Fund	556,406,310,000	642,327,640,000	765,175,300,000	877,432,590,000	850,676,400,000	895,690,358,243	1,174,145,489,791	1,170,877,695,797
III	OTHER LEGITIMATE REVENUES								
1	Contingency Grant/Balancing from the Government	77,850,000	75,000,000	37,490,790,000	35,541,140,000	41,690,410,000			
2	Ad Hock Adjustment Fund	-	-	-	-	-	-	6,679,368,800	
3	Grant	-	-	-	-	-	-	-	
4	Fund of Tax Sharing from Provincial and other Regional Government	-	-	-	-	-	278,157,214,465	240,436,422,287	244,321,460,651
5	Emergency Fund	-	-	-	-	-	-	-	
	Total Other Legitimate Revenues	77,850,000	75,000,000	37,490,790,000	35,541,140,000	41,690,410,000	278,157,214,465	247,115,791,087	244,321,460,651
	TOTAL REVENUE	764,477,490,000	920,265,810,000	1,150,976,100,000	1,330,350,750,000	1,361,422,950,000	1,712,217,508,389	2,029,556,867,569	2,056,999,103,515

Notes :

*Local Budget of Revenue and Revenue/APBD after Budget Amendment

Source: The Budget Year of 2001-2005 Document on Local Budget of Revenue and Expenditure Calculation taken from 2006-2010 Surabaya City Medium Term Development Planning and Bappeko Surabaya

Table Annex 5.7 The Expenditure of Surabaya City Government (IDR)

	Description	2001	2002	2003	2004	2005*	2006**	2007**	2008
I REGIONAL APPARATUS EXPENDITURE									
1	General Administration Expenditure	NA	NA	NA	65,832,490,000	99,505,090,000	181,975,857,392	180,072,430,727	226,984,615,446
2	Operational and Maintenance Expenditure	NA	NA	NA	66,630,790,000	90,217,950,000	11,807,618,903	8,381,589,344	12,490,754,000
3	Capital/Developmental Expenditure	NA	NA	NA	19,591,340,000	27,764,900,000	32,879,045,200	30,640,610,795	44,504,395,205
	Total Regional Apparatus Expenditure	NA	NA	NA	152,054,620,000	217,487,940,000	226,662,521,495	219,094,630,866	283,979,764,651
II PUBLIC SERVICE EXPENDITURE									
1	General Administration Expenditure	NA	NA	NA	419,875,230,000	486,951,950,000	414,089,483,270	563,852,749,321	790,002,072,622
2	Operational and Maintenance Expenditure	NA	NA	NA	383,776,700,000	666,728,340,000	599,183,627,378	520,568,899,331	905,337,904,629
3	Capital/Developmental Expenditure	NA	NA	NA	157,915,490,000	252,850,010,000	143,867,225,157	248,491,110,956	1,014,214,966,836
4	Profit Share and Financial Grant Expenditure	NA	NA	NA	48,801,490,000	37,496,760,000	1,570,161,540	1,333,620,429	1,800,000,000
5	Incidental Expenditure	NA	NA	NA	3,505,790,000	24,856,490,000	967,947,620	3,131,079,266	30,025,502,165
	Total Public Service Expenditure	NA	NA	NA	1,013,874,700,000	1,468,883,550,000	1,159,678,444,965	1,337,377,459,303	2,741,380,446,252
	TOTAL EXPENDITURE	NA	NA	NA	1,165,929,320,000	1,686,371,490,000	1,386,340,966,460	1,556,472,090,169	3,025,360,210,903

Note:

* Local Budget of Revenue and Revenue/APBD after Budget Amendment

** Projection

Source: The Budget Year of 2001-2005 Document on Local Budget of Revenue and Expenditure Calculation taken from 2006-2010 Surabaya City Medium Term Development Planning

Table Annex 5. 8 Financing of City Government of Surabaya (IDR)

	DESCRIPTION	2006	2007	2008
I	FINANCING REVENUE			
1	Residual Surplus of Previous Year Budget Calculation	525,402,078,095	836,530,514,333	983,267,856,388
2	Transfer to Reserved Fund	-	-	-
3	Loan and Obligation Revenue	-	1,631,200,000	-
4	Earnings from Separated Regional Asset Sale	-	-	-
5	Grant	-	-	-
	Total Financing Revenue	525,402,078,095	838,161,714,333	983,267,856,388
II	FINANCING EXPENDITURE			
1	Transfer to Reserved Fund	-	-	-
2	Capital Participation	3,170,677,903	3,945,504,104	3,946,000,000
3	Payment of Short-term Debt	11,520,818,052	11,496,214,730	10,960,749,000
4	Residual Surplus of Budget Calculation	-	-	-
5	Credit for Region	-	5,100,000,000	-
	Total Financing Expenditure	14,691,495,955	20,541,718,834	14,906,749,000
	TOTAL FINANCING	510,710,582,140	817,619,995,499	968,361,107,388

Source: Surabaya City Planning Office, 2008

Annex 6

Questionnaires and Summary of Results

Interviewees: The Cities Government Agencies and the Cities Representatives Council

No.	Questions	Yogyakarta	Surabaya	Denpasar
1	Do you know about ICLEI?	Yes, ICLEI often initiate program related to environment issues. For a program in Yogyakarta City, ICLEI focusses on the decreasing of air pollution and energy saving. ICLEI program is in line with Streetlights Management Scheme and Kampong Street Light Management Program by installing kWh meter and changing lamps type.	Yes.	No, never heard of it.
2	How do you know it?	The information is acquired from City Infrastructure Office, the ICLEI workshop in Jakarta around 2000-2001, the visit of ICLEI delegation from Manila. ICLEI is an agency that concerned with the environment and climate change issues, therefore it should be supported.	Knowing ICLEI program from Mr. Litfi Lesilono (Indonesia Project Coordinator of INDO CCP ICLEI) when he was visiting Surabaya city. The Mayor wwas very supportive with the program. Then, the city government staffs had been invited to meetings and seminars held by ICLEI ever since.	-
3	What are the benefits that the government staff acquired from the cooperation with ICLEI?	The most important thing is inspiring City Government of Yogyakarta in formulating its programs. Those programs are: trees planting on road sides; the government policy on saving of AC and electricity in buildings; budget saving on the streetlights management scheme. Beside that, giving motivation to the community to jointly participate in climate change protection through decreasing the GHG	Its benefit is the opportunity to involve in reducing green house emission, protecting climate; cost saving for city, business, and city residents; improving the city's air quality	-

No.	Questions	Yogyakarta	Surabaya	Denpasar
5	Please provide input and suggestion concerning future ICLEI cooperation.	More involvement from the stakeholders, meaning that, ICLEI is more involved on the programs dissemination to the community, not only expands the programs to other cities. In creating an environment is not only relying on city government facilities, but also the involvement of the community. Moreover, the evaluation on ICLEI programs implementation should be done continuously for the programs continuity in the future. It should also add programs on global warming mitigation, not only for cities which are the member of ICLEI, but throughout Indonesia through APEKSI.	There should be ICLEI coordinator for Indonesia which gives technical assistant in Indonesia, more training and workshops are needed.	-
6	Do you know about the Streetlights Management Scheme (for Yogyakarta respondents), the CNG program for city government vehicles (for Surabaya respondents), and Community-Based Biogas Project (for Denpasar respondents)?	Streetlights Management Scheme in Yogyakarta City are the kWh meter installation and the changing lamps for energy saving until 2011. For the Kampong street light management program, the fund acquired from the saving of PLJU payment is led to the neighborhood street light, where the lighting (lamps, etc) is given to the community for free. At present, PLJU installation is about 7500 points. With the presence of the program, there is an energy saving, because the installation of Kwh meter and energy saving lamps. This program is continued with Kampong street light management program, beginning from 450 lamps in 2004/2005, added 500 lamps in 2006. It is still needed 15,000 points in city area.	CNG program for city government vehicles in Surabaya City has been implemented for 100 government vehicles, each of which provided with: 1. Converter Kit 2. CNG tube 3. Switch on/off so that it can use either gasoline or CNG for fuel	Yes, the energy crisis which is caused by the diminishing fossil fuel, while waste can be an alternative to create energy (Metan).
7	What is the background for the program implementation? Is it from the community or a national policy encouraging the implementation of the	The program is conducted because of the very high of streetlight payment. This program is the initiative of city government. There is a wasting payment on the streetlight management because of contract system	The background of Fuel Switching (CNG) for City Government Vehicles of Surabaya: 1. Sustainable Transportation Study, the cooperation of BAPPEKO and GTZ 2. The presence of test drive of public	The community started complaining about the careless waste disposal by 56 soybean companies in Ubung area. The initiative came from NGO Bali Fokus and City Government respond to the

No.	Questions	Yogyakarta	Surabaya	Denpasar
	<p>program?</p>	<p>payment, where the city government must pay for 12 hours of streetlight usage, regardless whether the lights are actually on or off. Therefore, a measuring device is installed, so what is paid is what is used. Moreover, the electricity used for streetlight can be measured and evaluated. Beside the meter installation, there is also energy- saving lamps installation.</p> <p>The saving of payment and then used to finance Kampong Streetlight Program.</p>	<p>transportation using CNG</p> <ol style="list-style-type: none"> 3. Report of by Center for Energy Studies UGM in the National Transportation Seminar result and Coordination Meeting of INDO CCP, on 30 July 2002 in Universitas Gajah Mada (UGM) Yogyakarta on the test result of CNG vehicles compared to gasoline vehicles, that the reduction of CO level using BBG is 40-50% from the CO level using gasoline. 4. Work plan on CO2 emission reduction on ICLEI-CCP program of Surabaya City 2002/2010 which signed by Surabaya Mayor, that are: <ol style="list-style-type: none"> a. Inspection and maintenance for motor vehicles. b. Efficiency on fuel using on office vehicles in City Government of Surabaya with BBG (CNG) converter kit installation. c. Surabaya Car Free day d. Campaign on Blue Sky Program 	<p>program very well.</p>
8	<p>Please briefly explain the process of the program implementation, starting from the idea, preparation, to the implementation.</p>	<p>The idea is from the city government, then, the master plan is made and consulted to the related stakeholders. After that, discussion is made in the higher level such as City Council.</p> <p>The idea is from the government (related agency), then fully supported by the Mayor. There is also cooperation with related agencies especially City's Development Planning Board, City Council, and State electricity Company. After that, the budget is agreed for implementation.</p>	<p>The implementation process of CNG program on office vehicles of Government City of Surabaya as explained in No.6 and:</p> <ol style="list-style-type: none"> 1. The signing of Surabaya City CCP – ICLEI Workplan 2. Surabaya City office vehicle inventory 3. The proposal of the plan of Gas Fuel (CNG) converter for Surabaya City Government vehicles to Surabaya City Government Budgeting Team 4. Coordinating meeting and dissemination in city government staff 5. Announcement Letter about CNG 	<p>The community expressed their ideas, and then there is a meeting in the village, sub-district, and regency levels. After that the Environment Agency processed and proposed the issues to the Council.</p>

No.	Questions	Yogyakarta	Surabaya	Denpasar
			<p>Program Plan</p> <p>6. Installation Schedule</p> <p>7. Installation Implementation</p> <p>Constraints:</p> <p>a. Surabaya City Government does not have its own gas fuel station. The existing gas station is owned by Zebra Taxi Company, so that the office vehicles converted to Gas Fuel get the fuel from Zebra Taxi gas station in Brebek and Tanjung Sari Area.</p> <p>b. It often happens that the gas station pressure is low, therefore private, public, and office vehicles are not allowed to fill the gas fuel in the gas station; the priority is for Zebra Taxis as the owner of the gas station.</p> <p>c. The spare parts are difficult to find in Surabaya City.</p> <p>d. Since 2005, Zebra gas station is no longer in service, so office vehicles use gasoline again.</p>	
9	Do you know the methodology to reduce green house gas emission?	Not specifically, because at that time, the emission calculation is conducted by ICLEI	We do not know the methodology used in the CNG Program to reduce green house gas emission. The calculation was made by ICLEI and UGM Yogyakarta as ICLEI technical assistance. It was calculated in 2004, the saving per year is 677 ton per year or around US\$54,869.	No
10	What is the scope of the program in each city?	The scope of Streetlights Management Scheme Program is all main streets and neighborhood in 14 sub-districts of Yogyakarta City. The Streetlights Management Scheme in all main streets has been conducted 100%; 75% for Village Street and 55% for kampong street. It is expected	<p>The number of office vehicles of Government City of Surabaya equipped with converter kit, BBG tube so they can use two kinds of fuel (gas or gasoline) is 100 office vehicles.</p> <p>Constraints:</p> <p>1. There are only two gas stations owned</p>	One area/village (several household) in one village

No.	Questions	Yogyakarta	Surabaya	Denpasar
		<p>that in 2011 KWh meter and energy saving lamps will have been installed in all street from protocol street to kampong or village street.</p> <p>Kampong Streetlight program involved the entire sub-districts in Yogyakarta city. The city government implemented the program, with the assistance of Institution for Urban Community Development (LPMK), so not all the work is conducted by the city government. LPMK monitors the relationship between the city government and the society and then gives report about the areas in need of the streetlight program.</p>	<p>by Zebra Taxi Company in Surabaya City which can be used to fill the BBG for private, public, and office vehicles.</p> <ol style="list-style-type: none"> It often happens that the gas station pressure is low, therefore private, public, and office vehicles are not allowed to fill the gas fuel in the gas station; the priority is for Zebra Taxis as the owner of the gas station. It is only around 60-70% of office vehicles that fill BBG, because of the lack number of gas stations (there are only two gas stations, in far distance). Moreover, it often happens that the gas station pressure is low when the office vehicle reach the gas station so cannot fill the gas. It is wasting money/ time/ energy. The spare parts are difficult to find in Surabaya City so not all office vehicles using CNG. 	
11	Do you know the reduction of green house gas emission derived from the programs?	Not specifically, because at that time the technical assistance of GHG calculation is conducted by ICLEI	With 100 office vehicles operated in five days a week dan the BBG needed estimation is 9 lt/day ; it can reduce 645 ton CO2 emission /year.	No
12	How is the involvement of the stakeholders before and during the implementation of this program?	All stakeholders have been involved, but by now the involvement of stakeholders is considered not optimal.	The involvement of stakeholders before and during the program implementation is very good.	Always be involved since the beginning. Beside that, The government kept monitoring from the beginning to the end of the program implementation.
13	What is the methodology used to involve stakeholders? Who were invited?	Through workshops, seminars, and hearings. Besides the community and NGOs, the invited parties are technical agencies and local authorities. The ccoordinating agency which is City infrastructure Office held a meeting with the community to gather information from	Meetings, since the stakeholders are the staffs of City Government.	At the beginning, there is a meeting and dissemination among community figures, the local community, and soy beans entrepreneurs where Bali Fokus NGO as the facilitator. Workshop and training was also

No.	Questions	Yogyakarta	Surabaya	Denpasar
		the community related to streetlight maintenance. The community figures and the chairman of LPMK are invited in that meeting. Moreover, the process is combined with the socialization of Blue Sky Program. The result of the meeting is disseminated to the community.		conducted. The invited parties are the related community (soy beans entrepreneurs), NGOs, Environment Office, Engineers, and the Agency of Commerce, Mining, Farming, and Agriculture.
14	How much is the cost of the Program? Is it allocated in the City Budget each year? Since when?	The funding of the program is already budgeted in the City Budget since the programme was started in 2001 until the final phase of the programme in 2011 as mentioned in RPJMD. The total cost is 4,026,726 USD	The cost needed for a vehicle conversion is about Rp 10 – 12 million. The funding for CNG program for city government office vehicles is purely from Surabaya City Budget. By April 2003, Rp. 888.750.000 has been allocated for switching 100 vehicles to CNG.	The development of 1 unit biogas equipment costs about Rp 85 million (8,655 USD), in which the soybean entrepreneurs contribute 5% and the rest if funded by BORDA through Bali Fokus. For biogas project in Peguyangan animal husbandry, the construction cost amounting Rp 5,000,000 (510 USD) borne by the government through APBD.
15	How is the mechanism of the funding for these programs? Is there private sector investment, donor, or purely government investment?	The funding mechanism of the Streetlights Management Scheme is from APBD. the payment of streetlight bill was monthly collected from the Streetlight Tax (8% from total electricity bill per month) of PLN customers. The mechanism is as follows: PLN receive payment from the community including the tax and 8% shall be deposited to the City Government to be included in the APBD in the PAD post. Subsequently, the City Government will pay for the streetlight bill to PLN. Since the implementation of streetlight programmed in 2001, by the installation of KWh meter and energy efficiency lamps, the City Government has been quite successful in saving Rp 500 – 900 million per year	It is purely from Surabaya City budget	Beside APBD, also assistance from NGO
16	Are there any benefits from the implementation of the Program?	The co-benefits of the program besides saving energy are: (1) for the government: providing services to the community, enabling night tourism, so that local tourists are safe to go to	The benefits from the Government City of Surabaya, there are: 1. Saving from the fuel cost aspect, around Rp 50,000/day/vehicle..	To the community, the program is very useful to save energy. Moreover, waste is reducing because it can be converted into energy and it save energy. The

No.	Questions	Yogyakarta	Surabaya	Denpasar
		<p>the City Square (<i>alun-alun</i>) at night. Saving energy means saving cost. Then, the government funding can be allocated for other programs; (4) for the community: improving the community activities at night, improving the economic, encouraging the community creativity, meeting the needs for safety.</p> <p>Beside that, the image of Yogyakarta City as the city of tourism is promoted, financial saving, and electricity use is controllable with kWh meter.</p>	<ol style="list-style-type: none"> 2. The improvement of air quality because the reducing of CO2 level in Surabaya City with the calculation 645 ton/year. 3. Improving the quality of life/health of Surabaya City residents. 4. Protecting the climate change. 	<p>government is assisted in handling the environment problem.</p>
17	Please explain long term plan for the development of the program, the duration for the programs and is there any similar program?	<p>The long term plan of the program will be conducted in 2007-2011 stages as describing in RJPMD. There is no similar program so far. The target for installation to all villages, to small lanes, is expected to be finished by 2011. Other environment program is the regulation on emission gas limit (it is expected that highway patrol and garages has emission gas measurement device), one million tree planting program, and using bicycle for transportation.</p>	<p>The long term plan of Continuity Transportation Program is using train based on the concept arranged by BAPPEKO Surabaya</p>	<p>The program will be replicated in other areas and not just for soybean industries but also for animal (cow) husbandry and slaughterhouse. Moreover, it can be also developed to reduce unemployment.</p>
18	In the implementation of the Program, is there any conflict among the local community?	<p>In general there is no conflict, except jealousy between the community who has got the street light and the one who hasn't. The community is informed that program is conducted in stages, so it cannot reach all community at the same time. So, they have to wait, and temporarily, they are expected to provide street light from their houses. Such a conflict is ended with deliberation. So far, the community has been very supportive.</p>	<p>There is no conflict among stakeholders.</p>	<p>No conflict, in fact, they support each other.</p>
19	Is the decision making process within the city government, especially in the implementation of programs	<p>In the decision making of the city government, especially concerning with environment, the planning is <i>top down</i>, but the community always be involved in the</p>	<p>The decision making in City Government of Surabaya especially in implementation program related to environment is conducted in the combination of bottom up</p>	<p>The combination of two: structural (top-down) and cultural (bottom-up).</p>

No.	Questions	Yogyakarta	Surabaya	Denpasar
	related to environment bottom-up or top-down?	planning.	and top down.	
20	What are the constraints and challenges for the introduction of a new program?	Not many constraints for the introduction of new program. Because dissemination is always conducted for new program introduction. Beside that, NGOs are always be actively involved in the planning. If there is any constraint of a new program introduction, it is on the budget of the city government, but there is no problem in the field.	In the dissemination stages, need a good public consultation method.	Sometimes, there is negative thinking by the community who has not understood the objectives and the functions of the program introduced. The people have no trust before they see the evidence. The other constraints are the lack of HRD, funding, facilities, and infrastructure
21	Does the city government staff always collect information about various kinds of programs conducted in other cities, as well as the information about both local and international experts and organization available for any cooperation in developing program?	Yes, there are visits to other cities, comparative studies or national meetings to share information. In those meetings, there are innovative ideas as the guidelines to other cities. The city government also opened cooperation with local or abroad NGOs which in line with the programs of city government. We shared information through comparative studies, e.g. to Jakarta and Solo. Moreover, the information is taken from the internet, APEKSI forum (management level). The forum such as workshop is held by foreign NGO. For example ICLEI gave many contributions to the government city staff in getting information about the latest programs. Besides that, the internet usage is very helpful. Then, the information concerning experts and local and international institution is got from central government, that is the National Development Planning Agency.	Not always. The information is sometimes taken from the result of workshop, seminar, and meetings.	The city government staff collect information from other cities through the websites and conduct comparative studies.
22	Is there any process of public consultation, workshop, or other activities in the frame of program introduction?	Yes, dialogs with the local community were held twice before the MUSRENBANG. Then, there are process of public consultation through Musrenbang, workshop, and	The CNG program for city government vehicles only involves related offices and the users of vehicles owned by city government. The program implementation process is as	To introduce the program to the community, NGO Bali Fokus conducted discussion, presentation and participatory approach using RPA

No.	Questions	Yogyakarta	Surabaya	Denpasar
		<p>seminar. There are ideas or inputs from stakeholders and the community representatives in the forum.</p> <p>At Musrenbang, the community is asked about the areas without street lights. The list of them then is proposed to the village office.</p> <p>For Streetlights Management Scheme and or Kampong Street Light Management Program, the process of public consultation is conducted in February 2007, in the framework of the introduction of streetlight management scheme.</p> <p>The dissemination program of city government is conducted by Regional Information Agency (BID). The city government also cooperated with the media such as Kedaulatan Rakyat, Bernas, and Kompas newspapers.</p>	<p>follows.</p> <ol style="list-style-type: none"> The signing of Surabaya City CCP – ICLEI Workplan Surabaya City office vehicle inventory The proposal of the plan of Gas Fuel (CNG) converter for Surabaya City Government vehicles to Surabaya City Government Budgeting Team Coordinating meeting and dissemination in city government staff Announcement Letter about CNG Program Plan Installation schedule and implementation 	<p>(Rapid Participatory Assessment) method was conducted during April-June 2003 period. Meetings between Bali Fokus and entrepreneurs have been conducted for 12 (twelve) times. In the meetings, the City Government serves as the facilitator.</p>
23	<p>Is there any program or media to share information intercity related to environment program? In what ways?</p>	<p>The city government of Yogyakarta conducted monthly meeting with the regency governments in the entire Yogyakarta Special Province to share information about activities or programs in their regencies. Moreover, the city government of Yogyakarta belongs to Association of Indonesian Municipalities (APEKSI: <i>Asosiasi Pemerintah Kota Seluruh Indonesia</i>). The APEKSI meeting is done every year with APEKSI members took turn as the host. The relation between the Environment Ministry and the city government staff of Yogyakarta is well coordinated.</p> <p>Besides that, information sharing is also conducted through the internet. From the website of the related cities, all the program reports can be accessed through the website.</p> <p>And, there are also Sister City Programs from many cities and inter executives. By giving</p>	<p>APEKSI, sister cities</p>	<p>Yes, there are mass media and internet. (www.denpasar.go.id). Moreover, there are pamphlets, seminar, and periodical dissemination (once in two months)</p>

No.	Questions	Yogyakarta	Surabaya	Denpasar
		motivation to environment activities and meeting with environmentalist.		
24	What has the city government staff done to improve their capability in doing their routine jobs?	The City government staffs improve themselves through workshop, seminar, trainings, brief education and internet. Moreover, every staff of city government is given unlimited chances, through internet or other activities to get the information from other countries. They are also given an opportunity to improve their education quality by taking a higher education (funded by the city government).	In improving the quality in doing the routine jobs, the city government staff is joining trainings, brief courses, workshop, seminar, etc.	The quality improvement is conducted through trainings, courses, seminar on management, and through internet to access programs in other cities.
25	Through what media does the city government staff search for information? How often does he/she look for new information (the frequency)? If there is new information, what does he/she do for the follow-up?	Through seminar, internet, and new information related to the programs that can be developed in Yogyakarta City, the city government soon coordinated with the related staff and agencies to follow up the program.	Looking for information through internet, email, telephon. The frequencies cannot be determined, depending on the demand. If there is new information, it is used as an input.	Through internet, seminars, and workshop, depend on the invitation letters. Electronic information (internet, RKP Radio Station-101,50Hz and email).
26	How is the relation between city governments with NGOs? What benefits they got from such a relation?	The relation between the city government and NGOs is very good. NGOs gave much benefit to the city government. Moreover, NGOs often helped the city government in handling many community problems especially in program dissemination.	The relation between the city government and the local, national, and international NGOs is good. The benefit of the new program is used as the input.	Complementary each others. And have cooperated for a long time. The NGOs are planning a program and the city government implemented it. At the beginning, the funding is from NGOs. Further funding is by the city government.
27	Except ICLEI, is there any similar program, in which the city staff government in Indonesia can share information?	APEKSI, CAI-Asia	Besides ICLEI, there is Kitakyushu Initiative Network, IGES, UNESCAP, Clean Air Initiative (CAI) Network.	No information

Interviewees: NGO and Media

No.	Questions	Yogyakarta City)	Surabaya	Denpasar
1	Do you know about the program?	This program is about distributing lighting to streets until it reaches villages and it is closely related with land acquisition and the shifting of function in the community productive land. The areas with street light will soon be open areas that attract people, because lighting is a vital needs in urban life.	Yes, but not been involved in this specific project.	Yes
2	What is the background for the program implementation? Is it from the community or a national policy encouraging the implementation of the program?	Besides as the lighting function, it is also supported Yogyakarta as the tourism city. The initiative can be from the city government or community. The community needed lighting, and in other hand, the city government was actively mapping the areas needed streetlight.	To reduce air pollution	To reduce pollution in tahu-tempe industrial area in Ubung. The initiative is from the NGO in cooperation with the government as the facilitator.
3	Is the community, media, or NGO involved in the planning and the implementation of the program?	On the planning of the programs, so far, the Yogyakarta City Government has not involved the community in wider scope. The community is viewed as the object of the implemented program, where it should be the community as the subject of the programs. A forum for the government city in sharing information is viewed as less effective because today the information media still belonged to certain community	Do not know in specific details.	Yes.
4	If it is, how is the involvement (through meetings, workshop, focus group discussion, etc.)?	Do not not very specific.	Do not know in specific details.	The Mekar Sari enterpreneur group (Tahu Tempe entrepreneurs) and NGOs are involved, but not the media. Beside that, through meetings in Bale Banjar and house to house visit.
5	What are the benefits for the community regarding the implementation of the program?	The benefits are related to the aspect of security, comfort, order, etc.	-	It reduces pollution and provide fuel for energy.

No.	Questions	Yogyakarta City)	Surabaya	Denpasar
6	In the implementation of the program, is there any conflict among the local community?	So far the city government of Yogyakarta has involved the community and many elements of it to arrange the programs, especially through Musrenbang. In the more common programs, conflicts with the community happened when the new program is introduced, but it is normal. The most important thing is the ways to overcome it.	-	Yes, there is. At the socialization, there are often happened cross opinions. But the conflict is just happened at the time of land acquisition and construction time. The solution is by conducting meeting frequently.
7	What are the constraints and challenges for the introduction of a new program?	It was the jealousy among regions with street light and the ones without.	Do not know in specific details.	The community is not well informed about environmental issues.
8	Is there any process of public consultation, workshop, or other activities in the frame of program introduction?	Yes, through seminar and dissemination meeting in the level of neighborhoods to city.	Do not know in specific details.	Do not know in specific details.
9	How is the relation between city governments with NGOs? What benefits they got from such a relation?	The relation is good as partners to reach the same objectives. If the vision of the government is in line with the NGO's, they will support the program.	So far the relation is good. The good coordination between government, NGO, Media and private will contribute to the success of environment program. One of the examples is the Green and Clean Program in Surabaya. With appropriate synergy among the government, Jawa Pos, and Unilever, the program is successful. The majority of the community support and participate.	In complementary function and the government has worked for a long time with the NGO in planning a program and the government implement it. The funding is initially from the NGO, and will be continued by the city government.

Interviewees: The Communities in Yogyakarta, Surabaya, and Denpasar

No.	Questions	Yogyakarta City)	Surabaya	Denpasar
1	Do you know about the program?	Yes. The disbursement of neighborhood streetlight is the streetlight program that will be distributed to village or areas with the coordination of LPMK. At the beginning, the disbursement is through LPMK's account, but later the account is paid through the Settlement and Regional Infrastructure Agency, it will be easier for the maintenance and bring the service close to the society. Each sub-village is responsible to the maintenance, and the the Settlement and Regional Infrastructure Agency gave more or less Rp 7000-Rp 8000 for cleaning the areas and changing the unused lamps. LPMK is monitoring the implementation of the streetlight maintenance.	Yes	Yes. The program is make use of the liquid waste and transform it to methane. We can use it for cooking and therefore we can save money to buy kerosene or LPG.
2	What is the background for the program implementation? Is it from the community or a national policy encouraging the implementation of the program?	Do not know for specific details, but both the government and the community have equally important interests: the government should provide services to the community, while community needs the street light program.	Air pollution by vehicles.	Since there are soybean curd industries and poultry slaughterhouse that produce waste, the area seems extremely dirty. To minimize and make use of the waste and avoid the smell, the biogas program is designed and implemented.
3	Is the community, media, or NGO involved in the planning and the implementation of the program?	Meeting with the City Infrastructure Office, in which the city government asking input from the community related to streetlight maintenance. The community figures and the chairman of LPMK are invited in that meeting. The community is often involved in the program through meetings, and also focus group discussion, this meeting is the routine meeting from sub-village. So the community aspiration is from the	Do not know in specific details.	Yes, with Bali Fokus

No.	Questions	Yogyakarta City)	Surabaya	Denpasar
		neighborhood level, and then to the sub-village, to the village level. In its planning, the city government mapped all the streetlight need in the entire villages of Yogyakarta City. The implementation is based on the priority scale in which the area with the highest number of streetlight shortage will get the first priority.		
4	If it is, how is the involvement (through meetings, workshop, focus group discussion, etc.)?	The community is often involved in the program through meetings and focus group discussion. These meetings are routine meetings in sub-village, but for the Streetlight Program dissemination, it is one specialized agenda separated from routine programs dissemination.	Do not know in specific details.	Through meetings in <i>Bale Banjar</i> and home visit.
5	What are the benefits for the community regarding the implementation of the program?	It reduces crimes and improve tourism activities.	The affordable price compared to cars with gasoline fuel; even, the difference of the price of both fuels is 50%.	Saving money
6	In the implementation of the program, is there any conflict among the local community?	In any programs, conflict is a normal thing. In the street light program, a conflict was happened because the residents in an area had independently provided streetlights, but then the streetlight program was introduced. Beside that, the people wanted all areas of the community to be provided with street light. However, the conflict was settled in peace through deliberation.	No serious conflict. All conflicts are manageable.	All parties are very supportive, no conflict.
7	What are the constraints and challenges for the introduction of a new program?	The main challenge is on the dissemination process or program introduction. The community awareness on environmental program is still low. At the beginning, there is suspicion to the new program.	At the dissemination process, where the community usually suspicious on the new program.	The community has not aware on environmental issues.
8	Is there any process of public consultation, workshop, or other activities in the frame of program introduction?	Yes, through MUSRENBANGDA.	No information	