ENVIRONMENTAL HEALTH PROJECT

WASH Reprint: Field Report No. 387

Survey of Private-Sector Participation
in Selected Cities in Indonesia

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October 1993

Co-Sponsored by
USAID/Indonesia Office of Private Enterprise Development,
Urban Policy Division (PED/UPD)
and
the PURSE Steering Committee,
composed of BAPPENAS, the Ministry of Home Affairs and
the Ministry of Public Works
under WASH Task No. 399

Environmental Health Project
Contract No. HRN-5994-C-00-3036-00, Project No. 936-5994
is sponsored by the Bureau for Global Programs, Field Support and Research
Office of Health and Nutrition
U.S. Agency for International Development
Washington, DC 20523

WASH and EHP

With the launching of the United Nations International Drinking Water Supply and Sanitation Decade in 1979, the United States Agency for International Development (USAID) decided to augment and streamline its technical assistance capability in water and sanitation and, in 1980, funded the Water and Sanitation for Health Project (WASH). The funding mechanism was a multiyear, multimillion-dollar contract, secured through competitive bidding. The first WASH contract was awarded to a consortium of organizations headed by Camp Dresser & McKee International Inc. (CDM), an international consulting firm specializing in environmental engineering services. Through two other bid proceedings, CDM continued as the prime contractor through 1994.

Working under the direction of USAID's Bureau for Global Programs, Field Support and Research, Office of Health and Nutrition, the WASH Project provided technical assistance to USAID missions and bureaus, other U.S. agencies (such as the Peace Corps), host governments, and nongovernmental organizations. WASH technical assistance was multidisciplinary, drawing on experts in environmental health, training, finance, epidemiology, anthropology, institutional development, engineering, community organization, environmental management, pollution control, and other specialties.

At the end of December 1994, the WASH Project closed its doors. Work formerly carried out by WASH is now subsumed within the broader Environmental Health Project (EHP), inaugurated in April 1994. The new project provides technical assistance to address a wide range of health problems brought about by environmental pollution and the negative effects of development. These are not restricted to the water-and-sanitation-related diseases of concern to WASH but include tropical diseases, respiratory diseases caused and aggravated by ambient and indoor air pollution, and a range of worsening health problems attributable to industrial and chemical wastes and pesticide residues.

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B

WASH Field Report No. 387

SURVEY OF PRIVATE-SECTOR PARTICIPATION IN SELECTED CITIES IN INDONESIA

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Water and Sanitation for Health Project
Contract No. DPE-5973-Z-00-8081-00, Project No. 936-5973
is sponsored by the Office of Health, Bureau for Research and Development
U.S. Agency for International Development
Washington, DC 20523

RELATED WASH REPORTS

Principles of Tariff Design for Water and Wastewater Services. Field Report No. 348. Prepared by David Laredo. October 1991.

Report of the Workshop on Private-Sector Participation in Urban Water Supply, Bali, Indonesia, 16-18 May 1991. Field Report No. 346. Prepared by James Clarkson, James McCullough, and Rashid Thabrani. September 1991.

Private-Sector Participation in Urban Water Supplies: Issues for Investment in Indonesia (Vol. I, Strategic Framework; Vol.II, Administrative Guideline; Vol III, Working Papers). Field Report No. 330. May 1991.

Preparing for Private-Sector Participation in the Provision of Water Supply and Sanitation Services. Technical Report No. 84. Prepared by Jane Walker. August 1993.

Financing Wastewater Services in Developing Countries. Technical Report No. 80. Prepared by James S. McCullough, David H. Moreau, and Brenda L. Linton. January 1993.

Guidelines for Conducting a Financial Management Assessment of Water Authorities. Technical Report No. 53. Prepared by Sally S. Johnson. October 1990.

Guidelines for Cost Management in Water and Sanitation Institutions. Technical Report No. 54. Prepared by Ronald W. Johnson. June 1990.

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EXECUTIVE SUMMARY

A team of consultants conducted a survey of eight cities in Indonesia to ascertain the level of private-sector participation with local governments in water supply, sanitation, solid waste, and several commercial activities, such as market place construction and renovation, slaughterhouses, and parking facilities. Private-sector participation includes long-term investments in infrastructure and services delivered for immediate payment under contract. The cities surveyed were Bekasi, Surabaya, Semarang, Yogyakarta, Ujung Pandang, Bandung, Medan, and Pontianak. The team interviewed scores of local officials, entrepreneurs, investors, and business association representatives over a six-week period. The intent was to take a "snap shot" of private-sector participation at the local-government level as it existed in late 1992.

Principal Findings

There is a great deal of private-sector participation at the local government level, most of it in the commercial activities sector. Private companies are involved in market construction and renovation in seven of the eight cities surveyed, and in slaughterhouses and parking in five of the eight cities. Private investment in a market project is typically between 1.5 and 25 billion Rupiah (Rp), and there are several market projects in most of the cities surveyed.

- There is some private-sector participation in water supply, sanitation, and solid waste in five of the eight cities surveyed, although the amount of activity is small compared to the commercial activities sector. All of the current activities are in the delivery of services, such as collecting water bills, sweeping streets, collecting and transporting garbage, producing compost, and desludging (pumping) septic tanks. Surabaya and Semarang have the greatest amount and variety of activities in these sectors.

- The total estimated financial value of current private-sector activities in water, sanitation, and solid waste across the eight cities is 1.9 billion Rp per year. This consists of 701.4 million Rp per year in Semarang; 156.9 million Rp per year in Yogyakarta; 89.3 million Rp per year in Medan; and, potentially, 2.1 million Rp per year in Bandung. An earlier investigation estimated the level of activity in Surabaya at 927.2 million Rp per year.

- Most of the financial value of services delivered by private parties in the non-commercial sectors is in solid waste management (77 percent); sanitation (septic tank desludging) accounts for 20 percent of the total, and water supply (bill collection) for approximately 2 percent.

- Although there are currently no private-sector activities in water supply, sanitation, or solid waste that involve large-scale investment, two projects are pending. One is the Umbulan Springs Water Supply Project in Surabaya and the other is the Semarang Water Supply Project. Both projects are "BOTs" (build, operate, and transfer).

- Umbulan Springs is the largest proposed BOT water supply scheme in Indonesia. Under the $200 million project, water will be brought 60 kilometers to serve residential and commercial users in Surabaya. The local water authority (PDAM) will buy a minimum amount of water from the project's private developer. The scheme has met with a continuing series of problems, including disagreement with the local authority over the purchase price for water and the withdrawal of several potential investors.

- In Semarang, negotiations are in progress with Indocu Matra Consortium for a joint-venture to supply water to real estate developments in Central and East Semarang for a 20-year period. The joint venture will be responsible for installation, treatment, and transmission of the water supply; the PDAM will be responsible for distribution. The private party and the PDAM have not yet agreed on an equitable water tariff structure.

- The survey did not reveal any new investment-type private-sector activities in water supply. Despite the official policy of decentralization, large scale infrastructure projects are still initiated by central government agencies, not local officials such as those interviewed in this survey.

Conclusions

- Most local officials view private-sector participation as a means of delivering services to the public when a government agency cannot deliver the services itself, rather than as an opportunity to reduce costs or increase efficiency. When local officials do contract with private companies, it is generally to extend service coverage (as for solid waste collection) rather than to increase effectiveness or cost-efficiency (as for collecting water bills).

- Structural problems in government procurement procedures limit the extent to which private-sector participation can reduce the cost and increase the efficiency of public services at this time. Most contracts are awarded by sole-source appointments rather than through competitive bidding, and price negotiations are generally based on estimates of what it would cost for a government agency to provide the same service.

- The private sector is most active in water supply, sanitation, and solid waste services in Surabaya and Semarang, two cities with strong and independent mayors who are willing to assume responsibility for problems that may result from innovative initiatives. The amount and variety of service-related activities in these cities indicates the potential for increasing such activity in other cities, if central government agencies issue the appropriate guidance and procedures.

- The most important obstacles to increasing private-sector participation in services are the lack of a legal framework, regulations, and procedures for local governments to use in procuring services from private firms; local officials' attitudes toward the private sector, including a suspicion that private companies will charge consumers too much, that their services will be unreliable, and that they are assuming functions that are rightfully performed by government employees; and local officials' lack of experience with private-sector options, including being

unaware of the potential for using private-sector participation to reduce costs and improve efficiency.

- There are substantial opportunities for increasing private-sector participation in water supply, sanitation, and solid waste services. In water supply, water meter reading and bill collection are potential opportunities. In wastewater and sanitation, providing on-site (septic tank pumping) and off-site (low-cost sewage collection and treatment) sanitation services to housing estates is a possible area of growth. And in solid waste, the current level of activity in street sweeping, transportation of solid waste from LPS to LPA, and composting activities can be greatly expanded.

- There will continue to be opportunities for increasing the amount of private-sector involvement in the commercial activities sector, including market construction and management, slaughterhouses, passenger terminals, and vehicle-related services such as emissions testing and vehicle inspections.

- Opportunities for increasing investment-type activities in the water sector are seriously constrained. The two projects now being planned have encountered many difficulties, and many Indonesian officials continue to believe that the government's responsibility for providing water should not be delegated to a private company that might charge high tariffs for what should be a public good. Other constraints include the difficulties in arranging financing, negotiating appropriate guarantees to reduce investors' risks, and reducing competition from multilateral funding sources.

Recommendations

- The most important single step in increasing private-sector participation is for the appropriate central government agencies to provide clear guidelines, policy directives, and procedures that local governments can use to procure services from private companies.

- Provincial and regional level agencies should develop systems for identifying opportunities, creating bidding documents, and tendering proposals for the private sector.

The report also recommends physical and financial indicators that the Government of Indonesia may use to monitor changes over time in the levels of private-sector participation, and includes estimates of the current ("baseline") values of indicators in the water supply, sanitation, and solid waste sectors.

Appendices to the report include a detailed profile of current private-sector participation in each of the eight cities and the full report from the supplementary survey, which collected data for estimating the baseline indicators.

This survey supported two efforts to assess and promote private-sector investment in Indonesia: (1) the USAID/Government of Indonesia Municipal Finance Project's attempt to determine the extent of private-sector participation in the provision of urban services controlled by local governments and (2) the PURSE (Private Participation in Urban Services) Project's goal of increasing private-sector investment in large capital-intensive infrastructure projects.

The survey follows a previous WASH policy study entitled "A Strategic Framework for Increasing Private-Sector Participation in Urban Water Supply in Indonesia." The prior study covered constraints to investment-type private-sector participation more fully than this report.

Cities to be surveyed were nominated by the Indonesian government's technical team and USAID representatives. A long list was developed and those cities which showed the greatest enthusiasm were selected. The survey was conducted mainly by interview. The team spent an average of three days in each of the cities in the initial survey; one member of the team spent an additional three to four days in four of the eight cities during the supplemental survey.

ACRONYMS

APBD	*Anggaran Pendapatan dan Belanja Daerah.* Regional Budget or Regional Revenue and Expenditure Budget
APBN	*Anggaran Pendapatan dan Belanja Nasional.* National (State) Revenue and Expenditure Budget
BANGDA	*Pembangunan Daerah.* The Directorate General for Regional Development, MOHA
BAPPEDA	*Badan Perencanaan Pembangunan Daerah.* Regional Development Planning Board
BAPPENAS	*Badan Perencanaan Pembangunan Nasional.* National Development Planning Board
BKPM	*Badan Koordinasi Penanaman Modal.* Investment Coordination Board
BKPMD	*Badan Koordinasi Penanaman Modal Daerah.* Regional Investment Coordination Board
BOO	Build, operate, and own
BOT	Build, operate, and transfer
BPAM	*Badan Pengelolaan Air Minum.* Drinking Water Management Unit
BUMD	*Badan Usaha Milik Daerah.* An enterprise owned by Local Government
BUMN	*Badan Usaha Milik Negara.* An enterprise owned by the Central Government
DEPDAGRI	*Departement Dalam Negeri.* Ministry of Home Affairs
DISPENDA	*Dinas Pendapatan Daerah.* Regional Revenue Agency
DPRD	*Dewan Perwakilan Rakyat Daerah.* Regional House of Representative
IMB	*Ijin Mendirikan Bangunan.* Building Permit
INMENDAGRI	*Instruksi Menteri Dalam Negeri.* Instruction Letter of Minister of Home Affairs
INPRES	*Instruksi Presiden.* Instruction of The President
IUIDP	Integrated Urban Infrastructure Development Program

KABUPATEN	Region (Rural Area)
KABID FISIK DAN PRASARANA	*Kepala Bidang Fisik dan Prasarana*. Head of Physical Development and Infrastructure Division
KEPALA DAERAH/KDH	The head of the area. For the province it is the governor, for a city it is the mayor or Walikota
KEPMEN	*Keputusan Menteri*. Ministerial Decree
KEPPRES	*Keputusan Presiden.* Presidential Decree
KOTAMADYA/KODYA	Region (Urban Area/City)
LKMD	*Lembaga Keamanan Masyarakat Desa*. Community Defense Organization
LPA	*Lokasi Pembuangan Akhir*. End Disposal Site (solid waste)
LPS	*Lokasi Pembuangan Sementara*. Temporary Disposal Site (solid waste)
MENDAGRI	*Menteri Dalam Negeri*. Minister of Home Affairs
MOHA/MHA	Ministry of Home Affairs
MPW	Ministry of Public Works
MOF	Ministry of Finance
NGO	Non Governmental Organization
PADS	*Pendapatan Asli Daerah Sendiri*. Regional Own Revenue
PASAR	The buildings and infrastructure in a marketplace
PBB	*Pajak Bumi dan Bangunan*. Land and property tax
PD	*Perusahaan Daerah*. A regional enterprise created by the local government, such as PDAM or PD Kebersihan. Unlike a Dinas it can contract to third parties, raise revenues through user fees, and use part of its revenues for reinvestment
PDAB	*Perusahaan Daerah Air Bersih.* Provincial government water enterprise
PDAM	*Perusahaan Daerah Air Minum*. Regional government water enterprise
PEMDA Tk.I/Tk.II	*Pemerintah Daerah Tingkat I/Tingkat II*. Provincial Level I or Regional Level II Government

Pem. Pusat	*Pemerintah Pusat*. National/central government
PERDA	Peraturan Daerah or enactment which is drafted and submitted by the Governor to the provincial legislature (DPRD). This is subject in its final form to central government Minister of Home Affairs legalization. There can be a Tingkat II Perda which is approved by both the Walikota and the DPRD Tingkat II and sent to the Minister of Home Affairs directly for legalization
PERMEN	*Peraturan Menteri*. Ministerial Regulation
PMA	*Penanaman Modal Asing*. Foreign investment company
PMDN	*Penanaman Modal Dalam Negeri*. Domestic investment company
PP	*Peraturan Pemerintah*. Government regulation
PSP	Private-sector participation
PT	Limited liability company
PU	*Departemen Pekerjaan Umun*. Ministry of Public Works
PUOD	*Ditjen Pemerintahan Umum dan Otonomi Daerah*. Directorate General Of Governmental Affairs and Regional Autonomy, Ministry of Home Affairs
PURSE	The GOI/USAID Private-Sector Participation in Urban Services Project
Retribusi	User Fee
SEKWILDA	*Sekretaris Wilayah Daerah*. Regional Government Secretary
SETWILDA	*Sekretariat Wilayah Daerah*. Regional Government Secretariate
SK	*Surat Keputusan*. Decree
SKB	*Surat Keputusan Bersama*. Joint decree
TKPP	*Tim Koordinasi Pembangunan Perkotaan*. Urban Development Coordination Team
TK. I (Tingat I)	Level I Provincial government
TK. II (Tingat II)	Level II Regional/local government
WALIKOTA	Mayor/head of Level 2 Kotamadya government

Chapter 1

BACKGROUND

1.1 Origin of the Assignment

This is the final report of the "Survey of Private-Sector Participation in Selected Cities in Indonesia." The initial survey began on September 26, 1992, and ended on December 28, 1992, a supplementary survey was conducted from June 27 to July 31, 1993. The study was funded by USAID and conducted by the Water and Sanitation for Health (WASH) Project.

The purpose of the survey was to support two efforts to assess and promote private-sector investment in Indonesia. Chronologically, the first effort was that of the USAID/Government of Indonesia Municipal Finance Project Team to determine the extent of private-sector participation in the provision of urban services controlled by local governments. Little was known about the locally planned and executed private sector activities. It was felt that it would be useful to know what experiences existed and how they could be encouraged and replicated in other local areas. To this end, members of the Municipal Finance Project Team conducted informal surveys in Surabaya and Pandang and recommended a more extensive six month provincial survey with selected governments to inform decision-makers of the nature and extent of private-sector participation activities.

The second effort was the PURSE (Private Participation in Urban Services) Project, which is aimed mainly at increasing private-sector investment in large capital-intensive infrastructure projects. To assist the PURSE Project, this survey collected data on capital-intensive water-related sector activities in the provinces: water supply, sewerage, sanitation, and solid waste, although these sectors have been covered more thoroughly and in more detail in previous studies.

After a three-day team planning meeting, the team reviewed the terms of reference, scheduled activities for the life of the project, presented a draft table of contents of the final report, and drafted an initial survey. Notes of the team planning meeting are included as Appendix A. These include the statement of purpose, a tentative outline for the report, a list of the sectors and subsectors to be surveyed, the format to be used to collect the data, and the data collection methodology. Following this meeting, the team's progress, findings to date, and plans for the form and content of the final report were discussed with the Government of Indonesia's technical team for the PURSE Project and USAID during meetings on October 1, 1992; October 7, 1992; October 10, 1992; October 21, 1992; and December 2, 1992. The technical team included members of the ministries involved in the survey and was headed by the Ministry of Planning.

1.2 Purpose of the Survey

The purpose of this rapid reconnaissance survey is mainly informational—to describe what forms of private-sector participation already exist in selected cities at the local government level, to explain why they have failed or succeeded, and to explore the opportunities for and constraints to further private participation in the same cities. Promising areas for pilot or demonstration projects were also to be identified. The output was to be a snapshot of private-sector activities as they existed in selected provincial cities in late 1992.

Additionally, the survey team was asked to formulate a simple and reliable monitoring indicators to track the growth of private-sector participation in the provision of urban services at the local government level in years to come. These indicators were also to be used to track and estimate the effectiveness of the PURSE Project.

The results of this survey were to be used both by the team implementing the PURSE Project and by a Working Group for Private-Sector Participation at the local government level, which will be formed of representatives from the central and local governments to develop strategies leading to greater private-sector participation in the provision of urban services. (The scope of work for the survey is included as Appendix B.)

1.3 Definitions

This informational survey follows on a recent WASH policy study entitled, "A Strategic Framework for Increasing Private-Sector Participation in Urban Water Supply in Indonesia" (WASH Field Report No. 330), hereinafter referred to as "the WASH Water Policy Study." Some of the terms used in the final report of the WASH study are used in this report. These include "off-budget," "supply-led," and "enclave." In addition, the survey team coined a new term: "ancillary" investment. To avoid ambiguity or confusion, these terms are defined in Table 1.

As used in this report, "private sector" means any entity that is not 100 percent governmental. By this definition, the following entities are included in the private sector category; along with strictly commercial companies.

- PT—limited liability company

  PMA—foreign investment company

  PMDN—domestic investment company

- Quasi-governmental private sector

  BUMN—enterprise owned by the central government

  BUMD—enterprise owned by the local government

  PDAM—regional government water enterprise

PDAB—provincial government water enterprise

- Cooperatives
- Community organizations/partisipasi masyarakat

It was decided during the team planning meeting not to emphasize activities of cooperatives and community organizations.

For purposes of the analysis, the term "private sector" has been broken down into four subcategories, as shown in Table 2. The commercial private sector and cooperatives are not obliged to serve government objectives, whereas, quasi-government private sector organizations, although they can make contracts with third parties, are compelled to meet social as well as profit objectives. In practice, quasi-government commercial entities, cooperatives, and mobilized community participation all usually have strong connections with the local government apparatus.

Table 1

General Definitions

"Off-budget" investment comes from outside the government budget. Off-budget investment adds goods and services to the stock of urban facilities without using the government's budget.

"Supply-led" investment is initiated mainly by engineering or management companies hoping to provide their services to the project. Usually the main investor is not the "supply-leading" engineering/management company. The investor makes the investment decision based on profitability calculations contained in a feasibility study.

"Enclave" development projects are for a discrete area, usually not including the main city area. In water supply, a key advantage of an enclave development project is that the ability of the residents to pay for it is likely to be uniformly high, cross- subsidization is unnecessary, and tariffs can recover costs. Another advantage of enclave projects is that they are usually new, and do not replace any existing systems or interests. In most enclave water supply development projects, the investment in water supply usually is "ancillary," as defined below.

"Ancillary" investments are initiated by an investor to enhance his main investment. For example a householder might make an ancillary investment in a deep well in order to enjoy his main investment (his home). Or a real estate developer might invest in a water treatment plant or solid waste collection system in order to sell houses in his main real estate investment.

At the Tingkat II level, the scores of private sector activities range from planned investment in water supply through bill collection and operation of the city's fire brigade. The survey team and the Indonesian government's technical team agreed that the survey would be limited to five main

Table 2

Types of Private Sector Institutions

The "commercial private sector" consists of Indonesian and foreign commercial companies that either have money to invest or which can provide services. The commercial private sector is most likely to invest in large-scale capital-intensive projects, and it usually is at arm's length from the government.

"Cooperatives" are groups of citizens having common interests. They are encouraged and nourished by the government. Except for very large cooperatives, these entities are unlikely to invest in large scale capital intensive projects.

The "quasi-government private sector" consists of institutions which are closely connected with government responsibilities and objectives and frequently are staffed with government personnel.

"Partisipasi Masyarakat" is the participation of private citizens, such as through the LKMDs (community defense organizations), which usually are mobilized and remunerated by local levels of government for government-related activities such as for collection of solid waste. As one official observed, partisipasi masyarakat appears mostly as a counterpart to provincial government activities.

sectors: the three water-related sectors emphasized by the PURSE Project (water supply, wastewater and sanitation, and solid waste), plus two general category sectors: integrated area development and single function commercial.

"Integrated area developments" include mainly housing and industrial estates (which are "enclave ancillary" investments) but might also include an entertainment area such as *Taman Hiburan Rakyat* in Surabaya, where the PEMDA owned the land that was needed for the development. These areas are interesting because in most cases the PEMDA or the PDAM does not have the resources to provide urban services directly to the area developments. Thus, the developments must build and maintain the services by themselves and either turn them over to the PEMDA or to an autonomous body (such as a PDAM), or form a citizens' group to see to maintenance. Because these new "enclaves" are self-financing, they are a natural beginning place for private-sector participation. Indeed, some PEMDA'S have plans to bundle nearby and contiguous real-estate developments as packages for PSP services such as solid-waste collection.

"Single function commercial" refers to business activities that in other circumstances might be government-regulated commercial private-sector activities: abattoirs, marketplaces, passenger terminals, vehicle-related activities, and parking facilities. All of these activities were judged as having potential to recover their investment and administrative costs through user fees. Because the survey team did not know in advance what these activities might be, some categories (such as abattoirs and vehicle-related activities) were added as they were encountered in the field.

1.4 Data Collection Methodology

Cities to be surveyed were nominated by the Indonesian government's technical team and USAID representatives. Population and geographical location were the main factors in selecting the long list of potential cities. In mid-October, representatives of the Regional Development Board in each Level II regional/local government (Tingkat II) were invited to attend a half-day meeting to discuss the objectives of the survey. The local governments were asked to assist the team by gathering as much information as possible in a limited time frame. Those cities which showed the greatest enthusiasm were selected, and a visit schedule was drawn up at the meeting, as follows.

DATES OF VISITS TO EIGHT CITIES ACCOMPANIED BY THE TECHNICAL TEAM, GOI

1.	Bekasi	7 October 1992 (and several subsequent visits)
2.	Surabaya	12-16 October 1992
3.	Semarang	18-21 October 1992
4.	Yogyakarta	21-24 October 1992
5.	Ujung Pandang	28-31 October 1992
6.	Bandung	1-4 November 1992
7.	Medan	9-12 November 1992
8.	Pontianak	13-16 November 1992

The survey team was able to spend an average of three days in each of the cities studied. The survey was conducted mainly by interview. After a one-day trial visit to Bekasi, the survey team developed a format to guide the interviewer. In addition, a questionnaire was devised to be distributed to local government officers, but it was tried once and then abandoned because the information requested was not readily available. Because private-sector participation takes different forms in different cities and because the objective of the survey is relatively new to many local government officials, the survey team concluded that dialogue was necessary to draw out experiences, constraints, and opportunities. The great number of people interviewed made it possible for the team to recognize common themes and common ideas held by civil servants, potential investors, and others. The names and organizations of the people interviewed are given in Appendix C.

Each three-day field visit began with a half-day orientation attended by representatives from the Regional Development Planning Board and the various agencies, PDAMs, and other departments to orient them to the various forms of private-sector participation. The team explained the objectives of the survey and gave examples of private-sector participation in other cities. The remainder of the time in the field was used for in-depth interviews with the government

departments, associations such as the local chamber of commerce, and potential or actual investors.

The interviews were aimed at finding answers for the following questions, among others:

- What are the experiences, opportunities, and constraints to private-sector participation in the survey city?
- In cases of private-sector activity, which party took the initiative? Was it the PEMDA (the provincial or regional government)? Was it an investor who already knew officers at the PEMDA well? Or did a potential private investor approach PEMDA officers whom he did not know? Or was the initiative taken at the central level and passed down to the local government officers?
- How did PEMDA officers view the private sector, and how did they feel the private sector viewed them? How did potential investors view the local governments, and how did they feel the local government officers viewed them?
- If private-sector initiatives failed, what lessons can be learned from those failures?
- How was the private-sector activity contracted (tender or direct appointment) and enforced (short contract period or sanction)?
- What types of private-sector participation were considered and finally used in each case?
- Can the extent of private-sector participation be quantified in terms of value or percentage of activity?

A separate interview questionnaire was formulated to record the extent of private-sector participation in specific subsectors in either Rupiahs or percentage of coverage. Partly because statistics are difficult to locate in a short visit, this questionnaire was not successful in eliciting qualitative responses as to experiences, opportunities, and constraints.

The written interview notes formed the basis for the city profiles (found in Appendix D), which in turn are the basis for the main body of this report.

A follow-up, or supplementary, survey was conducted several months after the main survey to collect additional financial data to be used as a baseline for tracking changes over time in private-sector participation. (The survey team had been unable to obtain sufficient financial data during the main survey.)

1.5 Organization of the Report

In addition to this chapter, which covers the genesis of the survey, its objectives, definitions, and methodology, there are five more chapters. Chapter 2 discusses the private sector experiences found in the water-related sectors, integrated area development, and single function commercial sectors in the eight survey cities. Chapters 3 and 4 discuss the opportunities and constraints found in the eight survey cities. Chapter 5 presents monitoring indicators that may be used for

measuring the growth of private-sector participation in the water, wastewater and sanitation, and solid waste sectors and presents the results of the follow-on survey. Finally, the general conclusions and recommendations are contained in Chapter 6.

The extent of private-sector involvement in the provision of urban services in Indonesia should be viewed in the context of such involvement in other developing countries. A brief description of the worldwide situation in Appendix E shows that developing countries still are attempting to come to grips with the technical, legal, institutional, and other problems that must be resolved before full-scale privatization can go ahead. Thus, it should not be surprising that such should be the case for Indonesia.

The detailed results of the survey are contained in the city profiles in Appendix D.

Tables at the end of each city profile summarize the findings, by subsector and type of participation. In cases where negotiations are ongoing the activity is classified as "existing," even though there is no contract, and thus no monitoring indicator as yet. The profiles use the same typology for characterizing various kinds of private-sector participation as the WASH Water Policy Study (see Table 3).

Table 3

Types of Private Sector Participation in the Water Sector

TYPE	DEFINITION
Service Contract	A public company engages a private firm to provide specific operational services such as meter reading, billing and collection, and operating production facilities.
Management Contract	A contractor assumes overall responsibility for operation and maintenance of a system, with freedom to make day-to-day management decisions.
Lease Contract	A private firm rents facilities from a public authority and assumes responsibility for operation and maintenance. The lessee finances working capital and replacement of capital components with a limited economic life (not fixed assets).
Build, Operate and Transfer/Concession (BOT)	A private firm finances investments (fixed assets) in addition to working capital. Assets are owned by the firm for the period of the concession (say, 10-20 years) and are transferred back to the public authority at the end of this period.
Build, Operate, and Own (BOO)	Same as the above except that the private firm owns the system at the end of the concession.

Source:
Adapted from T. Triche, Infrastructure Notes, Infrastructure and Urban Development Department, PRS The World Bank September 1990.

Chapter 2

INDONESIA'S EXPERIENCE WITH PRIVATE-SECTOR PARTICIPATION

2.1 Overview of Private Sector Activities

Many developing countries are encouraging private-sector participation in public services. Within Asia, Indonesia's BOT experience lags behind Malaysia's, but Indonesia is probably ahead of most other developing Asian countries. Within Indonesia, large-scale BOT private investment in water-related urban services has lagged behind private investment in electrical power (which threatens to be a serious national deficiency), telecommunications, and the construction of toll roads. But BOT private investment in the provision of marketplaces, slaughterhouses, and other facilities, and local urban services has been going on in Indonesia's cities for decades.

2.1.1 Locally Versus Centrally Dominated Activities

Two distinctly different forms of private-sector activities have traditionally existed in the provinces: *centrally dominated* activities and *locally dominated* activities.

Centrally-dominated private-sector activities are physically located in the provinces, but they have been planned, funded, and implemented by central government agencies. Historically, water supply (including raw water supply, treatment, and distribution) has been the main concern of the central government for several reasons. First water is a scarce resource to be allocated and clean water promotes hygiene and public health. Also, water supply development requires large investments beyond the reach of local governments. Often foreign investment is involved. This brings with it foreign exchange risk and hard currency terms for which the government has to provide risk insurance and guarantee convertability and remittability of revenues for debt service and dividend payments.

The Directorate for Water Supply in the Directorate General for Human Settlements (Cipta Karya) is the technical directorate for this sector. Likewise, sanitation has been a main concern of the central government for reasons of public health, and, at times, because funding was not available locally. Finally, although much solid waste management is organized at the local level (such as neighborhood collection and billing), the central government has been involved in planning and funding activities for sanitary landfills and even collection trucks. The Directorate for Environmental Sanitation in the Directorate General Cipta Karya is the technical directorate for sanitation and solid waste. These centrally dominated activities in the provincial areas have been planned under national urban development programs routinely, and hundreds, perhaps thousands of studies have dealt with them. The main sources of information about these activities are in Jakarta, principally at the Ministry of Public Works, Directorate General Cipta Karya.

Locally-dominated private-sector activities in the provinces have been left to the local governments. They are not the main interest of the central government. These activities include construction and/or operation of marketplaces, passenger terminals, slaughterhouses, multi-story parking facilities, vehicle-related services, and to a certain extent, water/solid waste-related activities such as services to real estate areas and industrial estates, residential/ marketplace solid waste collection, street sweeping, and collection of bills. While some of these locally handled activities, such as construction of new marketplaces or terminals, involve millions of dollars of investment, most are comparatively small investment/service contracts. Few studies have been made of these locally dominated activities, except those in the solid waste and water-supply sectors. The main sources of information about these activities are in the provinces.

Although marketplaces, passenger terminals, slaughterhouses, and other traditionally local activities are left mainly to the local governments, the local governments must seek approval from the Ministry of Home Affairs for the local regulations, or PERDAs, which provide for these activities. Therefore, the role and stance of the central government is critical even in the case of locally dominated private-sector activities.

Arrangements for private-sector involvement in centrally dominated urban service activities will be more complicated because now, in support of administrative and funding decentralization, the central government intends to "turn over" to the local governments activities that have not been planned and executed at the local level before. It will take time to sort out new central/local government duties and responsibilities which have traditionally been dominated by the central government. To this sorting out must be added the forging of new arrangements with private-sector investors and commercial banks.

2.1.2 Sectors and Subsectors Covered in the Survey

The sectors and subsectors covered by the study are shown in Table 4. There are five main sectors: water supply, sanitation, solid waste, single function commercial, and integrated area development. Each comprises a number of subsectors based on how the work of the sector is organized. The survey team looked for private sector activities in all subsectors.

2.1.3 Investment Versus Service Subsectors

The subsectors shown in Table 4 are of two types: *investment subsectors* (capital intensive) and *service contract subsectors* (non-capital investment). A single sector, such as water supply, can comprise both large investment subsectors (headworks, transmission, treatment) and relatively small service contract subsectors (pipe maintenance, meter reading, bill collection) activities.

Table 4

Sectors and Subsectors Surveyed in Eight Cities

Water-Related Sector	
Water Supply	
■ Raw water installation and water treatment/reservoir	■ Bill collection
■ Main distribution system	■ Water meter reading
■ Pipe maintenance	■ Administration and management
Solid Waste	
■ Recycling process/treatment	■ Street sweeping
■ Composting installation	■ Bill collection
■ Collection/transportation	■ Landscaping/gardening
Sanitation	
■ Off-site treatment and main pipe sewerage system	■ On-site treatment
	■ Human waste disposal (desludging) truck
Single-Function Commercial Sector	
Slaughterhouse	
■ Machinery slaughtering	■ Market distribution (export-oriented)
■ Cold storage/frozen meat	■ Cattle/pork cutting services
■ Livestock supply/fattening	
Market	
■ Rehabilitation/upgrading existing building	■ Management & computerization
■ New Building Construction	■ Commercial area development
Parking	
■ Multi story parking arcade construction	■ On-street parking
Passenger Terminals	
■ Rehabilitation/upgrading of existing buildings	■ Vehicle washing facilities
■ New building construction	■ Landscaping and interior
■ Management and computerization	
Vehicle Related	
■ Inspection of vehicles	■ Vehicle weighing
■ Inspection of vehicle emission	
Integrated Area Development Sector	
Industrial Parks	
■ New area development	■ Water supply provision
■ Waste water treatment	■ Electricity supply
	■ Promotion and marketing
Real Estate Complexes	
■ Water supply provision	■ Infrastructure maintenance

Investment subsectors deserve special attention because they bring in off-budget funds. It is also challenging to arrange private-sector participation in these subsectors because more assurances are required to protect private investment.

2.1.4 Reasons for Private-Sector Participation

Private-sector activities exist in the cities surveyed because accelerated development has increased the need for urban infrastructure and services and outstripped the government's ability to provide them. Many interviewees stated that this process will accelerate, and that private-sector involvement must increase with or without guidance from the government. Officials in almost all of the cities visited stated that they could not keep up with the building permit process, for instance, and some of them are considering employing the private sector for feasibility studies.

But there are other reasons for private-sector participation besides the rapid growth of development. As drawn from interviews with PEMDA officials and private sector representatives, there are five other reasons for private-sector participation.

1. *The role of provider of infrastructure and services goes to the private sector by default because the government does not play this role.* Examples include the following areas covered by the survey which are just too vast for the government to handle:
   - Ancillary investment in deep wells and on-site sanitation in private housing (especially in new real estate developments) and in industrial and some commercial developments;
   - Water vending in areas of inadequate water supply;
   - Construction and upgrading of markets on land owned by the PEMDA; and
   - Ancillary investment in industrial/commercial (and sometimes real estate) collection and disposal of solid waste.
2. *The central government implements its policy to conserve funds by seeking off-budget private investment in activities previously led by the central government.* There are two examples:
   - Large BOT raw water supply and treatment investment plans; and
   - Large BOT off-site sanitation projects, which were surveyed as opportunities.
3. *The PEMDA is unable to provide manpower or efficiency.* Examples are service contracts for:
   - Street sweeping;
   - Solid waste transport to sanitary landfill; and
   - In the case of PDAMs, the collection of water bills.
4. *The PEMDA wishes to develop its land in key locations rather than sell it.* There are two examples:

- Some integrated area development projects such as entertainment parks and recreation/tourist areas; and
- Markets which are either built or upgraded.

5. *The PEMDA has not placed a high priority on providing the services.* Four examples are covered by the survey:
   - Solid waste composting;
   - Desludging truck services;
   - Upstream/downstream activities related to slaughterhouses; and
   - Community participation and participation of cooperatives in the collection and recycling of solid waste.

It is worth noting that the efficiency advantages of private-sector participation were mentioned by only one local government—that of Surabaya. Apparently, the private sector is not widely viewed by local governments as a resource for increasing efficiency.

2.1.5 Characteristics of Cities with Significant Private-Sector Activities

In cities where commercial private-sector participation originated to provide off-budget funds for the central government or to fill gaps in manpower or efficiency, the key factor for success is a higher authority with the political will to make private-sector participation work. This higher authority may be in Jakarta or it may be the mayor of a city.

For example, the mayor of Surabaya wanted to promote private-sector participation and was willing to take some risks to do so. In Surabaya it was felt that if an action was not forbidden in the regulations, it was possible; in the other cities, it was felt that what was not prescribed was forbidden.

Additionally, the historical and physical factors encouraging private-sector participation are different in each city. Cities with well- developed infrastructure and communications are more likely to be able to support thriving private-sector participation. Access to Jakarta is similarly important. It is easier for PEMDA officers to visit Jakarta from Surabaya, for instance, than from Ujung Pandang to get approval of local regulations for private-sector and other projects.

Table 5 lists the key physical characteristics of each of the survey cities. It includes many characteristics that are conducive to the development of private-sector participation, such as accessibility from Jakarta, per-capita income, area for new development, current level of water-and-sanitation related services, and so on.

TABLE 5
TOWNS, GENERAL PHYSICAL OVERVIEW

CHARACTERISTICS	SURABAYA	SEMARANG	YOGYAKARTA	UJUNG PANDANG	BANDUNG	MEDAN	PONTIANAK	BEKASI
Locational Advantages	Gate of East Ind. at present	Lies between 2 big centers JKT and SUB	No special location adv.	Potentially, as IBT's Gate, by policy	No special location adv.	Close to the border	Close to the border	Close to JKT as Capital City
Position	Inside Java	Inside Java	Inside Java	Outside Java Sulawesi Island	Inside Java	Outside Java Sumatera Island	Outside Java Kalimantan Island	Inside Java
Accessibility from Jakarta	(Very Good)	(Good)	(Good)	(Fair)	(Fair)	(Good)	(Fair)	(Very Good)
o. Airport Class	International	National	International	National	National	International	International	-
o. Local Flight	27 times a day, shuttle service	7 times a day, shuttle service	8 times a day	12 times a day	11 times a day	9 times a day	6 times a day	-
o. Aircraft type	Jet	Propeler	Jet	Jet	Propeler	Jet	Jet	-
o. Airfare/trip (Rp.)	165.000	105.000	120.000	300.000	57.000	305.000	180.000	-
o. Travel Time (minutes)	90	60	65	120	30	130	85	20 1)
o. Modus Alternatives	Train, by land and by sea	Train, by land and by sea	Train, by land	by sea	Train, by land	by land and by sea	by sea	Train, by land
Town Area (Ha)	29.000	37.300	3.250	17.600	16.750	26.000	10.800	8.510
Number of Districts and Villages	15 Districts 163 Villages	9 Districts 177 Villages	14 Districts 45 Villages	11 Districts 62 Villages	26 Districts 135 Villages	11 Districts 116 Villages	4 Districts 22 Villages	4 Districts 26 Villages
Income/capita (89/90) 0)	Rp. 1,6 Juta	Rp. 1 Juta	Rp. 0,82 Juta	Rp. 0,80 Juta	Rp. 1,9 Juta	Rp. 1,6 Juta	Rp. 0,94 Juta	Rp. 0,8 Juta
People Occupation (2 main areas)	Trade (42%) Gov't (23%)	Industry (18%) Trade/Servc.(25%)	Trade (26%) Trans./Comm.(15%)	na	Trade (28%) Gov't (27%)	Industry/Trade (34%) Gov't (30%)	Trade (36%) Gov't (17%)	Agriculture (18%) Industry (38%)
Potential Investment Activities (2 main)	Manufacture Housing	Wood and Rattan Housing	Tourism	Agribusiness Textiles	Food Industries Textiles	General Trade Manufacture	Plywood Rubber Processing	Chemicals Housing
Annual Population Growth Rate (%)	2,09%	2%	1,7%	2,06%	3,8%	3,8%	2,71%	7,13%
Population (89/90)	2.220.000 2)	1.250.000	435.000	900.000	1.800.0000	2.000.000	400.000	350.000
Present APBD II (Billion Rp.)	124,4	49	13,3	64,3	110 3)	48,5	13,4	20 4)
Proportion of Regional Own Fund (PADS) to APBD II	38%	45%	32%	19%	13%	41%	52%	39%
Towns's main Problems	Water supply	Electric cap.	Electric cap. Limited Space	Small harbour	Traffic Congestion Small Bongkar/Muat	Traffic Congestion	Flooding/Tidal Small harbour	Infrastructure services
Area for new development or investment	Possible	Very possible	Not possible	Possible	Possible now	Possible	Possible	Possible
Level of Services								
o. Water Supply - capacity (l/s)	4.330	700	1.050	1.070	1.400	3.160	550	110
- coverage area (%)	na	38	43	46	55	60	38	18
- production cost/m3 (Rp.)	na	615	125	265	na	na	na	346
o. Town Sewerage- treatment (l/s)	None	None	10	None	na	None	None	None
- pipe lenght (km)	None	None	108	None	190	None	None	None
o. Solid Waste - total production (m3)	9.200	3.185	1.300	2.424	na	3.600	1.320	330
- sweeping (%) 5)	62	96	45	49	60	na 7)	na 8)	na 9)
- collection (%) 6)	82	67	65	65	na	47	49	29
Environmental Problems/ Critical Area	River pollution Industrial waste	No serious problems	No serious problems	Coastal abrasion	Very high pop. density	No serious problems	Riverside activities	Land Use Mix
Specific/Significant Private Investment on Urban Services	Water Supply 9)	Water Supply 10)	New/Up-Grading of Market	None	Wholesale Market	New/Up-Grading of Market	Terminal	Slaughterhouse

Note : 0) = based on GRDP Table
1) = by car
2) = for year 1990/91
3) = for 3 Fiscal Year, starts from FY 1988/89.
4) = for Kabupaten scale
5) = percentage of total street swept, excluding "Partisipasi Masyarakat"
6) = percentage of total production collected, excluding "Partisipasi Masyarakat"
7) = total street lenght is 326 km
8) = total street lenght is 140 km
9) = total street lenght is 185 km
10)= negotiation phase
na = no data available

2.2 Basic Findings of the Survey

Table 6 shows the investment subsectors in each city where private-sector activities were found (a list of the private companies involved in these activities is presented city by city in Appendix F). The survey encountered more than 100 discrete activities in provincial cities in which the private-sector participated either as an investor or through a service contract. Two potential activities were inventoried even though they still are under negotiation: the proposed Umbulan Springs BOT water supply project in Surabaya, and the proposed Semarang water supply project. Both of these are proposed central government (dominated) investment projects.

The table shows that the dominant type of single-function commercial private-sector participation in every city surveyed is the upgrading and construction of new marketplaces. In addition, there is a variety of activities in other single-function commercial sectors.

In the water-related sectors, several points emerge. First, in water supply, the "raw water supply" subsector stands out. The only centrally dominated large BOT projects identified fell into that subsector. Second, the only private-sector activities in sanitation are in disposal trucks involved in desludging operations. However, there is a lot of activity in the solid waste subsector where activities have traditionally been local and where service contracts dominate.

The two cities with the greatest concentration of private-sector participation are Surabaya and Semarang, both winners of the Kotamadya Adipura (Clean City) Award in recent years. These cities have strong local governments with strong mayors, good communications, and a critical mass of infrastructure. Surabaya has private-sector activities in all of the sectors surveyed, and some have been models for local governments in other cities.

The most common type of investment-type private-sector activity in the cities is BOT, usually ranging from 15 to 30 years. Private-sector service contracts take many forms and have widely varying terms and conditions. Surabaya has been innovative in making private-sector participation contracts. It uses a short contract period and a bank guarantee mechanism to ensure compliance and quality.

Table 7 shows both traditionally centrally dominated and locally dominated investment activities and approximate amounts of private-sector investment that might be involved for land and works. Where possible, examples of activities actually surveyed are shown. With the exception of investment in trucks for transportation of solid waste, all activities are or are likely to be BOT or BOO. The only centrally dominated investment projects surveyed were two: Umbulan and Semarang water supply, totalling potentially about $265 million investment if and when negotiations are complete. On the other hand, negotiations for scores of locally dominated BOT private investment activities in mixed development on land owned by the PEMDA, and market and terminal construction/upgrading are completed by local governments in the cities every year. These individual projects are small and dispersed, but taken together, they represent substantial amounts of investment.

TABLE 6
EXISTING SECTORAL PRIVATE-SECTOR PARTICIPATION CONTRACTS BY CITY

Water and water related sectors

Water Supply	Status	Raw Water	Distribution	Pipe Maint'ce	Bill Collection	Meter Reading	Admin.& Manag.
Surabaya	PDAM	1			15		
Semarang	PDAM	1					
Yogyakarta	PDAM						
Ujung Pandang	PDAM						
Bandung	PDAM						
Medan	PDAM				1		
Pontianak	PDAM						
Bekasi	PDAM						

Human Waste/Sanitation	Status	Off Site	On Site	Disposal Trucks
Surabaya	DKK			10
Semarang	DKP			4
Yogyakarta	DKP			1
Ujung Pandang	DPU			
Bandung	PDAM			
Medan	PDK			
Pontianak	DPU			
Bekasi	DKK			

Solid Waste	Status	Recycling	Composting	LPS to LPA	Street Sweeping	Bill Collection	Landscap/Garden
Surabaya	DKK	1		6	24		11
Semarang	DKP		2	3	3		9
Yogyakarta	DKP				3		5
Ujung Pandang	DKK/DPP						
Bandung	PDK					1	
Medan	PDK	1	1				
Pontianak	DKK						
Bekasi	DKK						

PDAM = Local Government Water Enterprice
DKK = Kotamadya Cleansing Agency (Dinas)
DKP = Cleansing & Landscaping Agency (Dinas)
DPU = Public Works Agency (Dinas)
DPP = Parks & Cemetry Agency (Dinas)
PDK = Local Government Cleansing Agency (Dinas)

TABLE 6 (Continued)

Others Sectors

Market	Status	Up Grading	New Building	Commercial Area	Admin.& Manag.
Surabaya	PD	1	1		
Semarang	Dinas	6	2		
Yogyakarta	Dinas	4			
Ujung Pandang	UPTD	3			
Bandung	Dinas	3	2		
Medan	Dinas	3	2		
Pontianak	Dinas/PD		2	1	
Bekasi	Dinas				

Slaughterhouse	Status	Cutting Machine	Cold Storage	Supply/Fattening	Marketing	Cutting Service
Surabaya	PD RPH	1		2	2	
Semarang	PD RPH		1			
Yogyakarta	Dinas					
Ujung Pandang	Dinas			1		1
Bandung	Dinas					
Medan	Dinas					
Pontianak	Dinas			3	2	2
Bekasi				2		1

Parking	Status	Multi-storey	Improvement	Bill Collection	On-street
Surabaya					
Semarang	UPD	1			1
Yogyakarta	Dinas	1			
Ujung Pandang	Dinas				1
Bandung	BPP	1			
Medan	BPP	3			1
Pontianak	Dinas				
Bekasi					

Passanger Terminal	Status	Up Grading	New Building	Vehicle related	Landscp.&Intrior
Surabaya	Dinas				1
Semarang	Dinas				
Yogyakarta	Dinas				
Ujung Pandang	Dinas				
Bandung	UPTD				
Medan	PD Pemb.		1		
Pontianak	Dinas		1		
Bekasi					

PD = Local Government/Kotamadya Eterprice

Dinas = Agency of Kotamadya

RPH = Slaughter house

UPD = o Unit Pelaksanaan Dinas

o. Implementation Unit of the Kotamadya Agency

BPP = o. Badan Pengelola Parkir

o. Parking Management Unit

Table 7

Potential Investment Activities Roughly Ranked by Size of Investment

Activity	Example	Type	$ Million
Raw water, transmission	Umbulan (Surabaya)	Central	185
treatment, distribution	Semarang water	Central	80
Sewerage, treatment including land	None	Central	50 - 100
Mixed development on PEMDA's land	Taman Hiburan Rakyat (Surabaya)	Local	20
Wholesale market land/construction	Gedebage (Bandung)	Local	10
Construction/upgrading of markets/terminals	Various examples	Local	1 - 12
Construction of passenger terminal	Batulayang terminal (Pontianak)	Local	4
Construction/upgrading of slaughterhouses	None	Local	1 - 3
LPS-LPA transportation trucks	Surabaya contracts (six contractors)	Local	0.2

Although single centrally dominated projects are larger, they take longer to come to fruition. Locally dominated projects individually involve less investment, but there are more of them. Neither of the two proposed water-related projects has come to fruition yet because they are breaking new ground. On the other hand, the survey found roughly nine new market buildings at, say, an average of $6 million each, Taman Hiburan Rakyat at $20 million, two wholesale markets at $10 million each, and two terminals at $4 million each. These non-water-sector projects amount to about $100 million, and they have already have come to fruition.

The following sections discuss the findings of the survey in more detail sector by sector.

2.3 Water Supply

2.3.1 Raw Water Supply/Piping/Treatment

The value of potential private-sector involvement in raw water supply/piping/treatment far exceeds that of other water supply subsectors. In Surabaya and Semarang, for instance, there are proposals for BOT-type private investments in raw water supply or treatment. Although at the time of writing neither of them has resulted in a firm contract,these are by far the largest single potential private investments, so they deserve close attention. These two projects reveal all the complications inherent in central/local and public/private arrangements, including questions of tariffs, investment guarantees, and risk sharing. They are quite different in scale and complexity from all other activities that were surveyed. Because the WASH Policy Study had so recently and thoroughly addressed them, the interviews relating to these projects were with officers in Surabaya and Semarang but not in Jakarta. These two projects are summarized in Table 8 along with the projects in Nusa Dua and Lhok Seumawe, two examples of private-sector participation in equity investment in water supply in Indonesia.

The largest proposed BOT water supply scheme in Indonesia is the $200 million Umbulan Springs Water Supply Project to bring water 60 kilometers to the city of Surabaya. The water is to fill the needs of residential and commercial areas in Surabaya. The initiative for the project came from the central government and the potential investors from Jakarta and overseas.

By the terms of the Umbulan Springs proposal, the PDAM would have to buy a minimum amount of water at a price it feels is far too high. In fact, the PDAM believes it could implement the project at a lower cost. Not surprisingly, this BOT scheme has met with consistent problems and setbacks and potential investors have withdrawn and been replaced more than once.

There are many lessons to be learned from this experience. The main one is that BOT and foreign aid projects need to be coordinated, and local governments should be involved in the planning and structuring of BOT projects from the beginning. Matters of tariffs, population served, and scale of project need to be worked out before private investors are called in.

In Semarang negotiations are in progress with Indocu Matra Consortium for a joint-venture to supply water to real estate developments and to Central and East Semarang. The joint venture will be responsible for installation, treatment, and transmission of the water supply. PDAM will be responsible for the ultimate distribution of the water. As yet, the issue of what should be an equitable water tariff is not yet resolved.

The initiative for this private-sector participation came from PDAM Semarang. It felt a need to encourage private-sector participation because it lacked the funds necessary to improve public services and because a directive to involve the private-sector was issued by the Central Ministry of Public Works.

TABLE 8

Present Status of BOT Scheme for Water Supply Sector

Name of Project	Form of Procurement	Inisiative	Status	Capacity	Approx. Investment Value	Area Served	Agencies Involved
Umbulan Springs (East Java/Surabaya)	Bidding by several Consortia	1987-88, East Java Water Resources Study recommended bids be requested	Under Negotiation	5.200 l/s	$ 185 Mill.	Old Surabaya city, 70% residential 30% commercial	Formerly, PT Bimantara Siti Wisesa: noew Trans Bakrie (JVC between Tansfield Australia and Bakrie Group)
Semarang/Central Java	Sole Source	PDAM	Under Negotiation	2.250 l/s	$ 80 Mill.	Industrial and new residential enclaves	Induco Matra/PDAM (possible funding from PEPABRI/Pension Fund)
Nusa Dua/Bali	Pemda instructed to negotiate with one offerer due to urgency	1988 IUIDP Master Plan		255 l/s	$ 23 Mill.	Tourist Development, 20% residential 80% hotels	PT Humpuss/PT Intan Mulya/PT Dacrea (French/Indonesia Group). PDAM Badung could go to cheaper IBRD Loan
Lhokseumawe/Aceh	Negotiations directly with one offerer	1987 Den Otter Management Services	Under Negotiation	1.700 l/s	$ 60 Mill.	Industrial and new development areas	Ezra Group/USA and Den Otter Management Services

The joint venture will take over the system and concession agreement for a 20-year period. Once the system is in operation, water supply will be divided between domestic (60 percent) and non-domestic (40 percent); the percentage of people served by the system in Semarang will increase from 38 percent to 70 percent.

Through these off-budget potential commercial private-sector investments, the central government will be able to free up infrastructure funds for other projects. However, when negotiations for private-sector involvement become difficult, the PDAMs may fall back on mechanisms already in place for planning and implementing such projects through multilateral funding sources. Although multilateral funds take longer to obtain than commercial funds, they appear to provide a viable alternative. But when private-sector investment is not properly utilized, the advantages of additionality are not obtained, i.e., multilateral funds are used needlessly to complete projects for which other funds are available.

Although the Government of Indonesia is proceeding with its policy of decentralization, the role of the central government in BOT water supply projects is key, and it appears that this role must continue at least until standards, guidelines, and procedures are in place. There are several reasons for this and all appear to go back to a history of intense centralization. First, up until now, large raw water supply works were planned, executed, and funded by central government agencies with multilateral aid. Second, with one or two exceptions, feasibility studies identifying BOT opportunities were centrally funded. Third, most of the technical expertise and experience in project planning and implementation existed in the central government. Fourth, any Indonesian investors large enough to consider a BOT water supply project was large enough to be based in Jakarta. Fifth, either the potential investors or the PEMDA had to get many permissions from the central government (for instance, for drawing water from a river, for foreign investment, for annual budget approvals, and for changes in regulations such as PERDAs). Finally, the central government was in the best position to authorize, coordinate, and execute innovation (for example, making the transition from multilaterally—to privately funded projects).

Water tariffs are always regulated by the public sector for public water supplies. In Indonesia the full cost of drinking water is often not reflected in the water tariff, and water user charges usually are below the real cost of supply. Introducing the private sector often makes explicit the real cost of water supply. For example, the PDAM Tiritanadi in Medan described the experience of the Bakrie Group investigating BOT investment opportunities in Medan and finally withdrawing after finding that it cost the PDAM about RP 360 m^3 to produce water that it sold for 170 Rupiahs per m^3.

In public services, tariffs are often kept down below even average costs of services for a number of reasons: to promote income distribution, to encourage public health and welfare benefits, and to achieve economies of scale. Tariffs don't have to increase to involve the private-sector. A number of private-sector models can be accessed, both for management and investment, even when tariffs are clearly below marginal or even average cost levels. These models include service and management contracts and even BOTs, in fact all models where there is a contract for services with a public sector agency. If the public sector currently subsidizes its services, the private sector may be able to provide part of these services or build them more efficiently. The

private sector offers a useful role in demonstrating the real cost of some of these services, given added expenses that the private sector has to bear, such as commercial interest rates, and including provision for guarantees and profit.

A related issue is that the private-sector investor will always be attracted to those projects or subsectors that have the highest profit margin or have the potential to make a profit. Many urban services are based on a policy of cross-subsidy, e.g., from industry to domestic, from big users to small. Once the private-sector has the opportunity to operate and invest in services, it is likely that those "profitmaking" centers will be the targets of private-sector activity. These centers can be inside or outside existing public-sector services.

Enclave projects are one solution to this difference between government and private objectives (Semarang is an enclave project). Other factors are also important to the success of private-sector participation in this subsector, including a strong Jakarta-based Indonesian company, a sense of local ownership of the project, and a manageable level of investment. The proposed BOT water supply project in Semarang appears to have surmounted many of the more difficult hurdles to private-sector participation in this subsector. The proposed project is of a manageable size ($60 million) and will introduce first-time service to an existing enclave with capacity to pay. Therefore the PDAM and the investors are not very far apart on the matter of water price.

2.3.2 Meter Reading, Bill Collecting, and Other Service Contracts

The survey found that the other forms of private-sector involvement in the water supply sector are restricted to the service contract area (meter reading and bill collection), where there is no investment and no conflict between the objectives of the PEMDA and the private-sector.

In **Surabaya**, fifteen private companies handle 100 percent of the PDAM bill collection with an average efficiency of 94 percent. The process first began in 1969 when competitive bidding was the basis for selection. Now each company is on a one-year direct appointment contract. If any company does not do its job well, its contract may not be renewed. Each private company has a bank guarantee from Bank Pembangunan Daerah to ensure that the PEMDA takes no risk if the company fails to attain its target.

There is no service-contract private-sector participation in water supply provision except for some water vending companies that provide some real estate developments with water (it is not possible to determine the size of the contracts). However, a recent proposal is under consideration to delegate bill collection to KUD (the Village Cooperation Unit), with payment guaranteed by Bank Bukopin. Under this guarantee, the bank will pay the PDAM the total users' fees at the end of each billing period, regardless of whether or not the KUD was able to exact full payment from each customer. In this way, it is anticipated that fee collection efficiency will be raised to 95 percent. It is also planned to have meter reading activities carried out by the KUD.

In **Bandung** there are no private-sector water inputs; however, the PDAM is looking into the pros and cons of private-sector participation. As a first step, it has made plans for a comparison

study with PDAM Surabaya in bill collection and PDAM Jakarta in meter reading to seek information on the experiences of other PDAMs currently working with the private-sector.

In **Medan** the private sector participates by managing bill collection for all clients of the PDAM (with the exception of the Armed Forces/ABRI) based on a monthly collection target. This is handled by a private company on a five-year contract and under bank guarantee. An extension of the contract is possible when it is completed. Medan received advice about how to manage bill collection from PDAM Surabaya and was able to increase its collections (collection efficiency was not specified by Medan's PDAM.) In addition, other work has been contracted out to the private-sector: repairing pipe leaks, water treatment plan maintenance, and pipe installation.

In **Pontianak** there is very little cooperation between the private-sector and the PEMDA in water supply. Two banks provide a mobile banking unit to collect fees at designated "payment points," making it easy for clients to pay their water bills. One other activity involving private-sector participation is an agreement between the PDAM and water vendors to buy water from public hydrants and then sell it to people who are not served by PDAM's water supply. This service is very important to inhabitants of unserviced areas, particularly in the dry season.

Although one would expect that increased efficiency would be a key advantage of the private-sector in this area, only the PDAM in Surabaya acknowledged this advantage to the team. PDAM Surabaya's system of requiring bank guarantees from the collecting companies ensures a minimum collection efficiency. Had this system been used in other cities, for instance in the collection of parking fees in Pontianak, Bandung, and Yogyakarta (where the private contractors fell far short of the targets), there may have been more positive results with private-sector participation.

2.4 Wastewater and Sanitation

On-site sanitation is basically a private function. There are no examples of public off-site sanitation private-sector projects in any of the survey cities. Public off-site sanitation facilities do exist as a legacy from colonial times in cities such as Yogyakarta and Bandung, but the high cost of construction for off-site sanitation facilities militate against private-sector interest in this activity. Even in the event that low-cost materials could be used, the high cost of land makes this activity comparatively unprofitable.

Desludging trucks are operated by the private sector in three of the cities. In **Surabaya** approximately ten private companies provide close to 100 percent of septic tank desludging. The system is quite informal, involving only a certification of the desludging firms by Dinas Kebersihan. Private-sector participation in this sector began about ten years ago because the facilities of Dinas Kebersihan were not adequate to the needs.

In **Semarang** septic tank desludging is carried out by the private-sector, using three out of four trucks provided for this purpose. The private-sector must pay the PEMDA a concession fee of 275,000 Rupiahs per month.

In **Yogyakarta** all sanitation activities are carried out by the Dinas Kebersihan dan Pertanaman, except for desludging and transport, which is all managed by private desludging trucks. About 3,885 households are served by four trucks. The Yogya municipality has no official location for end disposal; however, there is a pilot project in Ngasem for building, with aid from JICA, a single unit treatment plant with a capacity of 10 liters a second.

In **Pontianak** there was interest at one time from the private-sector in operating a desludging truck service. However, this initiative failed when it became clear that PEMDA could not find a suitable disposal site for the waste.

There is a need for more desludging trucks. For example, Bandung, a city of 1.8 million, claims that its three trucks handle all of the desludging demand. Also in Medan only three trucks owned by the local government agency PD Kebersihan carry out desludging. In most cases officers stated that sludge not taken away by desludging trucks was taken out by householders and usually poured into rivers.

2.5 Solid Waste

There is a great deal of private-sector activity in solid waste in the survey cities, but most of it is service-contract oriented. Within the water-related infrastructure sectors, solid waste does not have the high capital costs of off-site sanitation, such as land acquisition. The subsectors can be broken down into three groups: investment subsectors, service subsectors, and miscellaneous subsectors.

2.5.1 Investment Subsectors

The solid waste investment subsectors are limited to transportation of solid waste to sanitary landfill sites (for which there is considerable competition from multilaterally funded projects such as in Surabaya and Medan) and the ownership and operation of sanitary landfill sites.

The private sector is involved in the transportation of solid waste from LPS to LPA (temporary to end disposal sites) only in **Surabaya**. About 15 percent of the solid waste under the responsibility of the Dinas Kebersihan is moved by six directly appointed private companies, using their own trucks, under extendable three-month contracts. The contracts are by direct appointment, and they last for only three months in order for Dinas Kebersihan to keep strong control over the performance of the contractors.

In **Semarang**, the private sector's participation is limited to garbage collection on major roads. No LPS sites are used by the private sector in Semarang. Three private companies handle these activities in three city regions covering about 54 percent of all Semarang's solid waste and disposal. By involving the private companies, solid waste is brought with greater frequency to the LPA, resulting in a decrease in the operational and labor costs that would have been incurred by the Department of Sanitation.

Ujung Pandang and **Bandung** received proposals from companies for solid-waste transportation but rejected them apparently because the proposals did not include investment in trucks. The survey team felt that if multilateral funds were not so readily available for solid waste collection vehicles, private-sector participation would have been more attractive in this area. In actual fact, there is wide range for interpretation of the value of investment in solid waste collection trucks. If the trucks are configured only for solid waste collection, they represent an important investment that must be protected from risks such as *force majeure*. If the collection trucks are ordinary trucks which may be used for other purposes than solid waste collection, they might be considered merely purchased or rented tools for a service contract.

Dinas and PD Kebersihan officers frequently said they would welcome private-sector participation in ownership and operation of sanitary landfill sites, but because the cost of land is so high, the private sector has not expressed interest.

2.5.2 Service Subsectors

Services such as recycling, collection of residential solid waste, street sweeping, and bill collection involve the private sector because of the PEMDA's lack of manpower and, presumably, because the private sector can perform these services with greater efficiency. The private sector becomes involved in street sweeping and bill collection mainly when a Dinas Kebersihan has an insufficient budget. The PD Kebersihan (in Bandung and Medan) prefer to carry out these functions with their own manpower, even though in Medan street sweeping is partially subsidized by the PEMDA's budget.

In **Surabaya** the Institute of Technology has joint ventured with traditional recycling middlemen to form a company which is constructing a recycling center at the sanitary land fill site at Keputik. The Dinas Kebersihan provides the land, the private company provides the building and facilities. Also, about 18 percent of the street sweeping is contracted out to 24 companies by direct appointment service contract.

In **Ujung Pandang** some private companies assist the city by providing necessary equipment, masks, work clothing, helmets, and garbage containers.

In **Bandung** the KUD collects user fees for garbage removal. The service will be extended to all households in the Greater Bandung area. The KUD acts as a "payment point" in the service area.

In all survey cities most of the collection of solid waste and transportation to the temporary disposal sites is carried out by neighborhood groups. Also, there are highly efficient informal organizations of *pemulung*, or scavengers, who make their living gathering, sorting, and recycling solid waste through well-established collection points and marketing chains. These *pemulung* are perhaps the best example of a free (unregulated) market system.

2.5.3 Miscellaneous Subsectors

Composting is a commercial activity in sanitary landfill sites, one which the PEMDA prefers not to do. There are composting operations in **Semarang** and **Medan** (and one failed operation in **Yogyakarta** where an investor had problems with technology and distribution); there were no PEMDA-operated composting activities in the survey cities.

Landscaping/gardening is included in the solid-waste sector for convenience. In cities such as Surabaya, private parties enter into agreements with the PEMDA to maintain public areas in exchange for the right to manage or directly install advertising.

2.6 Integrated Area Development

2.6.1 Real Estate Developments

The explosion in residential real estate is the best example of national development outstripping the capability of local governments to provide services. Most real estate developers in areas outside the PDAM piping system provide their own water supply facilities (mainly well water) and provide for the disposal of solid waste. In cases where well water is bad, they may build small treatment facilities. The developers intend to have the PDAMs take over the distribution systems, but the PDAMs are hard pressed to own and maintain them. The main concern in most cities was that the PDAMs are not ready to take over all water supply facilities in real estate areas. Some PDAMs expressed concern that the piping and connections in the real estate developments were not up to proper standards, but in most cases the PDAMs accepted the quality of the developers' work. The developers usually include the cost of provision of water in the sale price of the house.

There is no standard system across PDAMs for the regulation and approval of piped water systems in real estate developments. Developers generally are well aware of the PDAM's technical standards for connection systems, and they are eager to turn over the systems to the PDAMs when they sell the houses. Therefore, developers usually invite PDAM officials to inspect the connection systems as they are laid so that the PDAM will approve and later accept turnover.

As long as groundwater is plentiful, either resident committees (of which there are few) or the developers can continue to provide their own water.

In most cases neighborhood committees arrange for solid-waste collection and disposal, and solid waste does not appear to be a problem.

2.6.2 Industrial Estates

Many industrial estates, such as PT SIER in Surabaya, are private entities owned partly by the PEMDA. Industrial estates outside of the PDAM's piping system provide their own water and wastewater/effluent treatment and disposal. Medan, Surabaya and Ujung Pandang have privately owned and managed commercial industrial estates, and there is potential for greater private-sector involvement in many other cities.

Industrial estates generally provide off-site sanitation as an ancillary investment. Aside from treatment facilities in industrial estates, there is little potential for private-sector participation in off-site sanitation unless environmental impact pressure comes to bear on very large enclave projects such as large real estate developments or high-density office buildings in a location where there is a capacity to pay (such as, for instance Jakarta's Setiabudi trunk sewer).

2.6.3 Other Developments

Surabaya's Taman Hiburan Rakyat is an example of a PEMDA wanting to develop its land and agreeing with the sole source investor on the terms of revenue sharing and return of the land to the PEMDA. Such arrangements also exist in Yogyakarta, for instance, where an investor built a hotel and parking lot in a 25-year BOT arrangement with the PEMDA Tk I.

2.7 Single Function Commercial

Single function commercial activities should recover costs through user fees if they are efficiently managed. In each case, it is theoretically possible for the PEMDA to regulate these activities and turn them over to the private-sector if there were a legal basis for such privatization. At present, the single function commercial activities described below involve the private-sector for capital or manpower inputs or because the private-sector is acknowledged as being more efficient.

2.7.1 Markets

PEMDA ownership of marketplaces grew from its ownership of land and the need to provide a healthy atmosphere for commerce. Local governments throughout Indonesia have been successfully mobilizing private investment in building and upgrading markets for years—as far back as most officers can remember. The survey team was able to record a snapshot of current private-sector market arrangements in each city, but there was no way to record past experiences. The value of private input into upgrading or new construction of market activities probably ranges from about 1.5 to 25 billion Rupiahs per market.

To date, there has been more private-sector investment in market building and upgrading than in any other single function commercial activity. The predominant form the cooperation takes is for the PEMDA to trade its ownership of the land and its permission-giving capability for private investment in market buildings and facilities. Depending on the agreement, to recover his

investment, the investor may either sell the kiosks to merchants or manage the market and collect rent for a fixed period of time, usually 15 to 30 years. At the end of that time, the ownership of the facilities returns to the PEMDA.

As in the case of large water supply projects, large single function commercial projects tend to be BOT in order to protect the investor's right to recover investment costs through guaranteed direct management of the commercial activity. There are many varieties of private-sector participation in markets including situations where the investor owns the land and has the right to share profits with the PEMDA for a limited period. Or, as in the case of Bandung's Caringin wholesale market (see accompanying text box), the investor owns and operates the land and buildings for a fixed period of time and then can sell them to small merchants.

The PEMDA's policy is not to sell off its assets, but to try to conserve and improve them. Private-sector involvement in markets is usually, but not always limited to cases where the PEMDA owns the land. One exception is in Bandung. The PEMDA intended to grant monopoly powers to the owners of the land and buildings of a wholesale grocers market at Caringin. And the Batulayang Terminal, the main passenger terminal in Pontianak, was built on private land by a private investor about five years ago and turned over to the PEMDA. In exchange, the investor was able to operate a commercial center on his own land next to the terminal. This terminal may not yet be an example of successful private-sector participation because the occupancy rate of the shops in the adjacent commercial area is still only 50 percent. Similarly, in Bekasi, a terminal was built on private land and turned over to the PEMDA by an investor who owned contiguous commercial land.

Whereas upgrading and renovating INPRES markets may not involve more than $1-5 million, the demand is growing in larger cities for integrated markets/supermarkets/ shopping centers which may cost $10 million or more.

The PERDA, or local regulation, mechanism has made possible a great many *ad hoc* arrangements in locally dominated investment activities. Generally, whenever a BOT market or passenger terminal or wholesale market project is undertaken, for instance, a local regulation stating its terms and conditions and the responsibilities of all parties is drafted and submitted by the governor to the provincial legislature. The PERDA in its final form is subject to legalization by the Ministry of Home Affairs. There can also be a Tingkat II PERDA which is approved by both the walikota and the DPRD Tingkat II and sent directly to the Minister of Home Affairs for legalization.If PEMDAs continue to be reluctant to release land which they own, they must also increase investment in markets apace with national development and the growth in value of metropolitan land. More and more markets will be modern markets with shopping centers, supermarkets, and mixed developments. The great potential for private investment in market

CASE STUDY OF CARINGIN WHOLESALE MARKET, BANDUNG

The case of what wound up as two purely private investments in wholesale grocery markets provides lessons for the future. It shows the need for detailed planning and contracting guidelines. It also shows why investors and the PEMDA often are wary of working with each other.

Caringin wholesale market was organized under a cooperation agreement with the Walikota Bandung in December 1988. It opened in 1991 with permission to operate all wholesale grocery market activities in Kodya Bandung for 30 years. At the end of 30 years, the investor, who owns the land and buildings, would return the management to the PEMDA and the land and buildings would be sold to the merchants who would have 20 years to pay. The Caringin market was to draw wholesalers from the markets at Ciroyom, Jatayu, Andir, and other places in Kodya Bandung to make one city-wide wholesale grocers' market with all activities (security, cleanliness, and maintenance) under joint, efficient management.

There are now 1,300 kiosks in the Caringin market. The merchants from the old wholesale market at Ciroyom were supposed to have moved to Caringin. But they have not all moved, mainly because of management's problems in dealing with the PEMDA, lack of enforcement, and a cooperation contract that is too general.

Under the original plan, the market management was to work with a special authority. But because there is not yet a Perda establishing the authority, the pasar is not given special treatment. The investor claims that the relevant Perda states that the PEMDA would take only 25 percent of the parking fees, but they take 50 percent. The investor also states that the PEMDA is taking so much in user fees that it is impossible to make a profit.

Another wholesale market at Gedebage, formerly in Kabupaten Bandung, was planned by the PEMDA. However, another private-sector group invested in the land and buildings. Subsequently, the city limits of Bandung expanded and included the market at Gedebage. The joint agreement between the investors at Gedebage and the PEMDA was signed in 1990. It allowed the management of Gedebage to operate the second wholesale market for 30 years. the PEMDA issued a decision of the Walikota that, within a radius of 10 kilometers, all wholesale grocers must move to one of the two markets. But both market owners/operators feel there is not enough wholesale business for two markets. And the PEMDA's concept of one city-wide grocers' wholesale market under one single efficient management has been compromised.

The owners of the Gedebage wholesale market estimate that their investment is about $10 million, mainly for the 12.7 hectares of land.

The Caringin wholesale market covers about 4.8 hectares of more choice land, closer to the city center. The owners claim that they now are operating the facility at a loss, pending a solution to their dilemma. They are concerned that their agreement does not include a provision for selling their assets if they do not make a profit.

the PEMDA feels trapped by these events and wants to help both wholesale market owners resolve the situation. Yet, the PEMDA must follow existing procedures and regulations. The matter is still under discussion.

construction/upgrading may be seen from the estimated number of markets under the authority of the PEMDA (large and small, INPRES, traditional, modern, etc.) in the survey cities shown below.

City/Region	Market
Surabaya	80
Semarang	60
Yogyakarta	30
Ujung	40
Bandung	66
Medan	58
Pontianak	40
Kotip Bekasi	5

2.7.2 Slaughterhouses

Originally, PEMDAs owned and operated slaughterhouses in order to ensure that the population received disease-free meat. Presumably it was felt that this public health objective could not be met by government-inspected private slaughterhouses.

Aside from cases of private ownership of slaughterhouses in Pontianak, Bekasi, and Ujung Pandang (and a joint venture in Surabaya), private-sector participation in slaughterhouses is generally limited to the upstream (cattle ranching or fattening) or downstream (cold storage, frozen meat, and distribution) activities. No PEMDA in any city is involved in cattle ranching or fattening, which often involves huge investments for land and is too far removed from the government's desire to ensure public health standards in meat cutting. However, if the PEMDA were to accept the idea that slaughterhouses could be privately owned and operated, up/down-stream companies would probably be eager to invest in slaughterhouses.

2.7.3 Parking

In the larger cities there is potential for private-sector involvement in the construction of multi-story car parking facilities, although some have been tried and were not so successful (as in Bandung). There are many variations on the form that private-sector involvement takes in this area, as with marketplaces. The PEMDA usually owns the land and the investor builds the facilities. Compensation may be by BOT or profit-sharing.

There is private-sector participation in Semarang, Medan, and Ujung Pandang in the collection of on-street parking fees, most of it by one organization (such as a police association or sports

committee). In Medan the Walikota assigned some streets to private collection companies. In all cases of private-sector participation that were surveyed, the amount to be paid to the PEMDA is set as a target rather than an auction among interested companies. Several private parties promising to achieve targets (in Pontianak, Bandung, and Yogyakarta) have fallen very far short. The lesson is that contracting procedures need to be tightened, for instance, to include a bank guarantee that targets will be met.

There have been successful experiences with multi-story parking in the survey cities. In Yogyakarta a hotel and parking area at Malioboro Plaza were built through a 25-year BOT arrangement signed about two years ago between the PEMDA Tk I and a private investor. There is also a 25-year profit sharing agreement between the PEMDA and an investor for a multi-story parking facility in the Medan's commercial Kesawan area.

2.7.4 Passenger Terminals

The PEMDA owns and operates terminals to ensure that people have access to public transportation. Although there is strong potential to attract private-sector participation to construct terminals in exchange for rights to contiguous shops, of the survey cities, only Pontianak and Bekasi have taken advantage of this opportunity to date. In Pontianak, a primary passenger terminal worth about $4 million including land was built at Batulayang about five years ago by an investor on his land in exchange for the right to establish shops surrounding the terminal.

In Surabaya there are discussions with a potential investor who may buy land in the north and construct a new terminal in exchange for the right to develop the land of the Jembatan Merah terminal, which is strategically located in the city center.

At present, although there have been proposals from investors to assist in the establishment of terminals (as in Yogyakarta), there is no significant private-sector involvement in this sector. In some instances, private firms are permitted to advertise in passenger terminals in exchange for carrying out interior and landscaping work, and plans are being made, as in Surabaya, to involve the private-sector in the provision of vehicle-washing facilities.

Also in Surabaya, some parts of the Purabaya Terminal, such as interior and landscaping, were done by a company in return for the right to handle promotion and advertising in the terminal.

Chapter 3

OPPORTUNITIES

3.1 General Opportunities

During the survey, PEMDA officers most frequently mentioned the lack of central government regulations and guidelines as a main constraint to private-sector participation. A corollary of this point is that the greatest general opportunity for increasing private-sector participation exists at the central government level. For the reasons given in Section 2.2, if the central government can provide clear guidelines and policy directives, private-sector participation can blossom in all cities instead of just those with strong leaders who are willing to risk criticism for acting without clear central government directives.

3.2 Potential Pilot Project and Investment Areas

According to the scope of work for the task, the survey team was to assist in identifying pilot project opportunities. If, in the course of their interviews, they encountered potential pilot projects, they were to investigate them, but pilot project identification was not the main purpose of the survey.

The team found it very difficult to identify potential projects during a survey visit to the provinces. The data and feasibility studies (usually prepared by consultants, such as those preparing the plans from which the Umbulan Springs project sprang, for example) are normally available at central—not local—government offices. The team asked at almost every interview about potential pilot projects, but officers at the provincial level usually are not trained to think in terms of pilot project preparation. The team did not have enough time in two and a half days to do a mini-feasibility study for promising areas, such as in Semarang where the extension of the city limits caused officers to take a fresh look at new (to them) areas.

Although no specific pilot project opportunity appeared, the survey results reveal the most promising areas for pilot projects under present conditions and regulations.

The survey team found that Surabaya would provide an excellent location for a private-sector pilot or demonstration project. A business town with relatively high levels of private-sector participation, Surabaya has an active, risk-taking mayor and an ideal climate for private-sector activities that are initiated or approved at the local government level.

Pilot projects in water supply headworks or treatment plants (such as in Semarang or Bandung, as described in the next subsection) would test new procedures mainly at the central government level. Elsewhere in the water supply sector, there is a possibility for other cities learning from and replicating Surabaya's enviable private-sector water bill collection system; however, Medan and Bandung already have studied Surabaya's system voluntarily, and there is no need to change regulations or procedures to effect this activity.

Investment opportunities for off-site sanitation did not appear during the survey, but it is possible that an enclave project, such as at Nusa Dua, may appear. Both off-site sanitation and water supply headworks/treatment are centrally influenced subsectors, and the best possibilities would appear in integrated urban infrastructure development plans.

Because all of the survey cities except Semarang have their own trucks, there does not appear to be much opportunity for private investment in trucks to haul solid waste from temporary to end disposal sites in any survey city except Semarang.

In the single function commercial sectors, the existence of privately owned slaughterhouses in Pontianak, Bekasi, and Ujung Pandang and the advance of technology suggest the time may be right for construction of more privately owned slaughterhouses operated under government monitoring for health standards. Some feasibility studies have shown slaughterhouses to be unprofitable, yet the slaughterhouses in the three cities were found to be operating profitably. The key factors appear to be affordability of the services provided and the willingness of the PEMDA to relinquish control. While the private sector may find it unprofitable to provide low-cost meat cutting service, there is a clear demand for high quality slaughterhouse operations in enclaves such as the Jakarta market, tourist hotels, or even in Singapore, and these are the most promising opportunities for private sector investment in slaughterhouses--if local regulations do not forbid private sector operation. There also appear to be many private-sector opportunities in new passenger terminals.

During the interviews, some of these opportunities were mentioned by PEMDA officers, specifically as projects either under consideration or about to be offered to potential bidders.

3.3 Opportunities in Water-Related Sectors

The sections below describe all the opportunities found by the survey team for private-sector participation in water-related sectors. The list is not extensive, except in the solid-waste subsector, and the few large BOT-type potential projects mentioned are not near-term opportunities.

Water Supply

In Surabaya, the Umbulan Springs BOT is a continuing opportunity. Other possibilities include water meter reading and BOO arrangements for *transmission pipes*—PDAM Surabaya already contracts to private companies for the installation of large pipes.

In BOT water supply, more opportunities exist in Semarang to serve other areas of the expanded city limits. One Swedish investor has made a proposal, but its status is not yet known.

In Bandung, the PDAM sees possibilities in cooperation between private investors and the PDAM to develop the water resources at the Sentosa Dam. At present the city has made use of all available water resources, yet only around 55% of the inhabitants of Bandung are serviced by the PDAM.

Increased capacity is possible if the water resource potential of the Sentosa Irrigation Dam (south of Bandung) were to be realized. Studies concerning the feasibility of using the Sentosa Dam were carried out by DHV and IWACO of the Netherlands. The only remaining problem concerns who will develop these water resources in the future, whether government alone, or the private sector in cooperation with the government.

A similar situation exists in Pontianak where construction of a dam is needed on the Landak River to divert water for use in the city. Also the tertiary piped water supply network must be expanded and new houses must be connected to the system. There are opportunities here for the private sector but they must be studied in more detail, however, because the size of the investment is very large, and it is unclear whether there are any investors interested in pursuing the projects.

In Bekasi, it is estimated that there are 20,000 potential clients waiting to receive water supply services. The PDAM is providing opportunities to the private sector to participate in provision of services to these clients, wherein the private developer is allowed to locate the prospective water user, and then install the required system under PDAM technical specification and supervision. Throughout Kabupaten Bekasi, PDAM's target up to 1995 is to provide water supply connections to 8,000 additional households. Of this total 4,500 units would be turned over to the private sector for system provision (mainly in housing and real estate developments). Implementation of this program is not progressing smoothly, however, due to technical constraints and payment arrangements between the PDAM and the private investors who wish to install these systems in their housing developments.

Generally speaking, real-estate developers would be able to provide piped water more frequently and more cheaply if the PDAMs would publish their plans for expansion of main piping (which presumably would be to areas of expected growth), publish acceptable materials and installation standards, allow purchase of materials on the open market, inspect the secondary and tertiary pipes and house connections in one day, and accept turnover of the developer's piping system.

Wastewater and Sanitation

In Semarang opportunities are open to the private sector to provide sanitation services to the newly developed housing estates.

In Ujung Pandang there is potential for cooperation between the PEMDA and the private sector in sanitation. Dinas PU plans to have the private sector assist in wastewater management using the city's integrated water system.

In Bandung, while there are no specific private-sector opportunities in sanitation, it should be pointed out that PEMDA has invested Rp. 81 billion in its wastewater and sanitation projects and has not yet reached cost recovery (not even the break-even point for operation and maintenance). The high costs involved present an obstacle to private sector initiative, but also present an opportunity to develop a usable format to increase private-sector participation in provision of these services.

Solid Waste

In Surabaya the opportunities for composting activities appear to be strong because Dinas Kebersihan has taken the initiative to conceive a private-sector role. The most likely contractor would be a company that already has fertilizer marketing channels. Also the number of streets that are swept by private companies could be expanded. And if more trucks are not financed by multilateral sources, it is possible to increase private-sector participation in transportation of solid waste from LPS to LPA as the trucks owned by the Dinas Kebersihan wear out.

The expansion of the city limits of Semarang also represents an opportunity for involvement of the private-sector in hauling solid waste from temporary to end disposal sites, either as a service contract or as an investment in trucks.

In Yogyakarta, the local government expects private-sector participation in the management of LPAs.

In Ujung Pandang, Dinas PU hopes to involve the private sector in garbage removal by allocating services to specific regions and areas of the city. There do not appear to be excessive rules and regulations concerning private-sector participation in solid waste management in the city.

In Bandung, PD Kebersihan has no present or future plans to involve the private sector in solid waste removal. A proposal was submitted by a private sector company but involved plans to handle a particular service under contract, not through investment. PD Kebersihan would prefer private-sector participation in LPA management, taking the form of investment cooperation.

In Medan, solid waste management could be more effective if a new LPA could be constructed to serve North Medan. PD Kebersihan is mired in financial difficulties and thus is willing to incorporate the private sector in building incinerator facilities for the project. An investor is interested and the project is at present being surveyed and technical feasibility discussions are being held.

The scope and volume of activities in solid waste management for Pontianak are still small, but the city already has a plan for involving the private sector in this area. Some thought has been given to more public participation in garbage collection through the LKMP, transportation of garbage from the LPS to LPA, and a method of fee collection combining the garbage bill with the electric bill.

In Bekasi there are no plans or concepts to include private-sector participation in solid waste management. Nevertheless, there is considerable potential for this participation, due to the industrial areas that are not yet serviced and from housing developments that are still underserviced. As the DKP was only recently established, it is still in the process of consolidating its resources and getting on with its tasks. Many internal problems must be addressed before any private-sector participation in its activities can be considered.

3.4 Opportunities for Single-Function Commercial Activities

Slaughterhouses

There may be opportunities for private investment in slaughterhouses where local regulations do not forbid it. The survey team was told that a PERDA in Semarang, for instance, requires that all slaughterhouses be managed by the PEMDA. But the PEMDA is trying to interest an investor in building a cold storage facility in exchange for the right to buy, cut, and sell meat in Jakarta. In Yogyakarta, all meat for hotels comes from Jakarta, and this need (five to six tons per month) could be supplied by a slaughterhouse in Yogyakarta if a company could run both upstream and downstream activities.

Markets

In Medan there is a need for a wholesale grocery market, but the PEMDA does not have appropriate land.

Parks

In Ujung Pandang, there is a plan to involve mainly banks in park maintenance.

Terminals

In Yogyakarta a potential investor has submitted a proposal to construct a terminal at Umbulharjo. In Bandung there is a plan to build a terminal at Leuwipanjang, but the PEMDA already has funding sources in mind. It is possible an investor might make a better offer.

Vehicle-Related Services

Semarang has let out one-year contracts to five companies that have their own equipment to assist in the inspection of diesel vehicle emissions (to be checked by the PEMDA's motor vehicle authorities), and there appears to be strong potential for private-sector involvement of this kind in other cities. There also is a potential for vehicle inspection and vehicle weighing, but there is no private-sector activity of this sort in any of the survey cities now.

3.5 Opportunities in Integrated Area Development

The park service in Ujung Pandang suggested that the private sector might help prepare a recreation park, and in Pontianak there is a proposal to build a floating restaurant in cooperation with the local government's market.

Chapter 4

CONSTRAINTS

In general, the team found that higher-level PEMDA officers knew of many private-sector activities in other cities and were aware of the advantages of working with the private sector, especially in mobilizing investment. Thus, lack of information about existing private-sector participation was found not to be a key constraint, although it should be mentioned that local government officials did not have a very good grasp of the efficiency advantages of private-sector participation. The constraints to private-sector participation that were encountered are discussed in the following sections.

In addition to the constraints discussed below, local conditions often constrain the development of specific private-sector projects. For example, in many areas the unavailability of land means that there is little room for the development of markets. Or the absence of LPA sites inhibits the growth of solid waste collection activities. In two of the cities extension of water supply coverage was constrained by lack of available water resources. In Pontianak the existence of illegal slaughterhouses inhibit private-sector development in this subsector.

4.1 The Need for Risk Sharing Arrangements

When they plan, fund, and implement urban services projects the local or central government takes on all risks. But, when private sector entities become involved, new risk-sharing mechanisms, such as joint-venture operations and government guarantees, must be found. The clearest need for risk-sharing arrangements is in the case of the Semarang and Umbulan BOT water supply projects. There are risks during construction, risks of a change in the tariff, foreign exchange risks, political risks, and risks of *force majeure*, such as nationalization. The way the latter risk is handled shows how urban services lag behind electrical power and toll roads: interviewees stated that the Ministry of Finance provides guarantees in the case of *force majeure* in the electrical power sector, but not for BOT water supply.

4.2 Guarantees

One way for the government to reduce the investor's perception of risk is to provide guarantees. The majority of potential investors who were interviewed were concerned about the risk of unilateral local government action after they had invested funds. These concerns could be addressed at the beginning through guarantees of monopoly rights, tariff increases, or guarantees against losses resulting from government actions.

The Bromo Consortium has asked for guarantees in Surabaya as to the rate of increase in water tariff in the future and take-or-pay guarantees. It is beyond the scope of this survey to state whether or not the government should provide those guarantees, but experience in other countries

indicates that successful BOT water supply projects usually, if not always, involve some government guarantees. This is most likely to give comfort to debt financiers.

An examination of many PDAMs indicates that because their financial condition is not very strong, they are not in a good position to provide guarantees even though they are the legally designated contracting parties for BOT water supply projects. Municipal or central government guarantees are usually required depending on the scale of the investment risk.

In the matter of BOT water supply projects, it is still being determined which entity in the government will assume the risk of *force majeure*. In the case of markets, terminals, and mixed developments on PEMDA land, the investors have assumed most or all of the risks, and the system appears to have worked reasonably well. The reasons probably are that all capital is domestic, there are no tariffs, affordability is not a problem, and special cases can be handled in a local regulation, or *perda*.

In the case of locally dominated activities, such as markets or terminals, financial guarantees were not mentioned as constraints.

4.3 Financing

Financing was found to be a problem mainly in the case of the two centrally dominated BOT water supply projects. In one case, the project was contractually obliged to purchase materials through a national export subsidy program at higher prices than through alternative sources. Also, when private banks loan funds for public projects, they require the same sorts of guarantees against, for instance, *force majeure*, as for private-sector projects.

In cases of foreign financing, exchange rate risks apply, and the Regional Investment Coordination Board must be involved, which adds another step in the investment process.

Financing is not a significant problem for most locally dominated activities, such as market construction or upgrading, probably because Indonesian consortia provide the investment funds.

4.4 Setting Tariffs

The divergence between government and private objectives was mentioned in each city that was surveyed, mostly in regard to water tariffs. The government is unlikely to relinquish its sense of responsibility to provide water at affordable rates, but cannot ignore the cost of supply. Willingness-to-pay analyses should be an integral part of water supply planning, and regulations should provide guidelines setting water tariffs. Additionally, if consumers have an alternative such as groundwater, they may not be willing to pay for poor service or poor quality piped water. In such cases the private investor may ask for a government ban on the use of groundwater, as is being considered in the Semarang water supply project.

In both the Umbulan and the Semarang water supply negotiations the question of tariffs has been a difficult issue. Some interviewees view this issue as a constraint to private-sector participation.

Others take the simple view that the PDAM or local water enterprise should declare the tariff for a potential private-sector project and allow private investors to offer terms or suggest lower tariffs; if no investor can live with the tariff, then there would be no potential private-sector participation by definition. According to this minority point of view, the problem is not tariff setting but the method of selecting bidders: rather than first choosing a bidder and then negotiating tariffs, it would be more efficient to choose the tariff and then negotiate with bidders who can meet it.

The WASH Water Policy Study recognized that enclave water supply projects held great potential because residents of enclaves can afford higher tariffs. The same principle holds true for slaughterhouses that cater mainly to the export and hotel markets. This suggests that, when selecting or prioritizing potential private-sector projects, enclave projects should be examined first.

In the case of other locally dominated activities such as market construction or upgrading and terminals, setting prices is not a key constraint.

4.5 Institutional Arrangements

When the private sector becomes involved with activities formerly handled by the government, new relationships must be worked out for planning and for financial and other arrangements. As the government shifts from provider to regulator of urban services the new relationships take time to be worked out. Each country will develop its own relationships based on its own particular social, legal, and judicial systems.

As was pointed out in Section 2.1, in centrally dominated private-sector activities an added layer of complexity arises out of the time-consuming process of seeking and trying out new central/local government relationships and responsibilities in the context of the ongoing decentralization process. This layer of complexity is absent in locally dominated private-sector activities.

4.6 Legal Constraints

It may be surprising that those interviewed did not refer to specific laws which constrained the development of private-sector participation. However, some mentioned the Basic Law of 1945, Article 33, which is often interpreted to mean that the government must handle water resources.

Many PEMDA officers cited Ministry of Home Affairs regulation no. 4/1990, which establishes approval authority for cooperation contracts with "third parties" (including the private sector). The approval authorities are outlined below:

Approval Authority	*Investment Level*	*Length of Contract*
Perusahaan Daerah	< Rp 5 million	1 yr
Walikota	Rp 0.5-1 billion	1-5 yr
Minister	Rp 1 billion + up	>5 yr

This regulation does not constrain private-sector participation; in fact, it helps to clarify the way in which regional enterprises can award service contracts, management cooperation agreements, management contracts, and the like to third parties. It is more important for what it does *not* say.

Working Paper B of the WASH Water Policy Study included a detailed and exhaustive review and analysis of more than 50 laws and regulations affecting private-sector participation. It was found that the current laws and regulations lack precision and thus add to the investors' perception of risk. The laws and regulations were found to be inconsistently applied, and the rights granted to private parties were often found to be unenforceable. Finally, conflicting laws restricted private-sector participation in ways that government did not intend.

As an example of the lack of legal basis for private-sector participation in the provision of urban services, the WASH Water Policy Study team was unable to find *any* laws or regulations concerning BOT's. While law no. 15 of 1985 concerns private-sector participation in electrical utilities and law no. 3 of 1989 concerns private-sector participation in telecommunications, no law is on the books concerning private-sector participation in water supply.

Of all the constraints mentioned by those interviewed, the lack of clear and specific regulations for private-sector participation in the provision of urban services was considered by far the most important and was mentioned most often. It is generally perceived that the current regulatory environment is not conducive to private-sector participation. If this constraint could be removed, it is probable that the PEMDA would appear more open to investors/contractors, and bureaucratic obstacles would appear less formidable.

Only a few interviewees ventured to speculate that the reason for the lack of clear and specific regulations for private-sector participation in the provision of urban services is that there is a lack of consensus about it at the cabinet level of government.

4.7 Lack of Openness to Private-Sector Participation

Potential investors felt it was difficult to approach PEMDAs with proposals perhaps because local governments feel there is a lack of direction from the central government. Investors did not know where to go or whom to approach. They described the relationship between government and the private sector as resembling that between a boss and his employees in which it is difficult to change to a joint venture or cooperative relationship. For example, in Ujung Pandang, the private sector desires an improved relationship with the PEMDA, in accordance with the central government directive for full regional autonomy. But PEMDA Ujung Pandang still looks to the wishes of the central government in making policy.

PEMDA Bandung is still trying to formulate a detailed conceptual plan to increase private-sector participation in urban services, including what particular form or type of business activities would be best suited for this future cooperation. Many plans for joint cooperation are already being considered, such as development of water supply installations (using artesian wells); management of solid waste in the LPA; and construction and management of passenger terminals. One of the reasons the private sector is not yet intensively involved in these activities is that PEMDA itself is unclear on the regulations and technical/operational guidelines governing efforts to improve cooperation with the private sector. In addition, the PEMDA is still waiting for the right moment, or optimum opportunity, to bring in the private sector. For its part, the PDAM plans to conduct a comparative study between Bandung and other cities which have experience in PEMDA-private sector cooperation, such as Jakarta, Surabaya, and Medan. However, the private sector in Bandung has received the definite impression that PEMDA Bandung is not receptive to opportunities in joint commercial cooperation and that any forum for discussion of communication between PEMDA and the private sector is still very limited.

According to the chairman of the North Sumatra chapter of the Indonesian Real Estate organization, the PEMDA in Medan does not have a cooperative or open attitude towards the private sector, and there are no PEMDA programs including the private sector as a partner. In addition, the government does not have clear policy regulations or programs for private-sector participation. There is a lack of documentation and statistics which would be required for initiatives from the private sector. Lack of guidelines or manuals defining private-sector participation has acted as a disincentive to the PEMDA in making a breakthrough in cooperation with the private sector and has even resulted in PEMDA's refusal to give out any information to the private sector.

Members of the survey team who did have discussions with PEMDAs felt that, while senior officers understood the private sector, it was difficult or impossible to get full cooperation from mid- and lower-level officers. In Ujung Padang, local government officials apparently believed that increased private-sector participation would result in a decrease or even cessation of certain specific government activities.

Several suggested that the government should have a program of publicity and information to attract private investment—much the same way that the Investment Coordinating Boards try to attract investment in key commercial sectors. Others observed that development plans and data that investors needed were not made available, and that the development plans and priorities of PEMDA's often changed.

4.8 Competition from Multilateral Funds

When it comes to large investment-type projects, private sector resources are often not sought because funds from multilateral agencies are available. In Surabaya, the survey team found that the main constraints to private sector investment in large headworks/treatment projects were, first, the felt need of the PDAM to keep water tariffs low and, second, the possibility of using multilateral funds to accomplish the same project. Competition from multilaterally funded loan

projects was also a constraint to increasing private sector involvement in transporting solid waste from LPS to LPA in Surabaya.

4.9 Lack of Strong Local Institutions

The survey team found that the PEMDA in Surabaya was not capable of meeting the present needs of development in the region in terms of quality of service and number of skilled persons required. There is a lack of consistency and continuity in development and upgrading of management skills, particularly in face of the increase in tasks and functions related to PEMDA activities in the development sector. For example, in Surabaya, as well as in many other of the cities, no privately developed housing estates have been handed over to the PEMDAs for future infrastructure management and maintenance because the PEMDAs lack institutional capacity.

In Ujung Pandang, the survey team found that the PEMDA's own bureaucracy and the lack of coordination between different related government departments constrained cooperation between the PEMDA and the private sector.

There is definitely a large opportunity for increased private-sector participation in delivery of urban services in Bekasi, particularly in relation to its proximity to Jakarta. The intensity of activity and level of investment of Bekasi's inhabitants is almost the same as Jakarta, and in addition the Bekasi region is the center for many industries. However, intense as this development activity might be, it is not matched by a similar strength in local institutions and related agencies which are required to accommodate opportunities from the private sector. The PEMDA does not have any concepts or operational guidelines covering potential benefits from private sector involvement, as outlined above. The situation acts as a constraint to the private sector's desire to provide a management alternative in the wastewater and sanitation sector.

4.10 Conclusion

There are more constraints in the case of centrally dominated investment activities than in the case of locally dominated investment activities. It will take time to lift most of the constraints as new relationships are worked out. The constraint which should be most easily lifted is the lack of central government guidelines, procedures, standards, and policy for private-sector participation in the provision of urban services.

Chapter 5

INDICATORS FOR MONITORING PRIVATE-SECTOR PARTICIPATION

The survey team developed a set of indicators for monitoring changes over time in the amount and financial value of private-sector participation in water supply, sanitation, and solid waste management and collected baseline data on the current levels of private-sector participation in these sectors during its original survey and later during a supplementary survey. This chapter presents the proposed set of indicators and reports baseline values for these indicators. The detailed report of the supplementary survey is attached at Appendix G; it explains how the baseline indicator values were calculated and proposes an approach for collecting private-sector participation data routinely.

5.1 Monitoring Indicators

As described previously, private-sector participation can take two forms (investments and service contracts) in each of the sectors examined in this study. Each form can be measured in either physical or financial terms. For example, the "amount" of private-sector participation represented by a water treatment plant can be measured by the production capacity of the plant (a physical measure) or the monetary value of the investment required to build and operate the plant (a financial measure). Furthermore, each indicator can be represented as a "raw" value or as a percentage of the total assets or activity, including public- and private-sector activity.

To monitor the full scope of private-sector participation, one must track indicators for both investment and service activities. And it is useful to track private-sector participation both as a "raw" amount and as a percentage of the total, to determine separately whether it is increasing in absolute terms as well as in proportion to the total activity in a particular sector. The real choice in monitoring indicators, therefore, is deciding whether to use physical or financial measures.

Both types of measurement have advantages. Information on physical measures is more accessible and probably more reliable. It is also relatively easy to develop percentage-of-total measures in physical units. Physical measures, however, cannot be combined for different types of facilities or activities and there is no way, therefore, to develop a summary measure of private-sector participation across sectors using physical units.

Financial measures, on the other hand, can be combined across sectors and can serve as a basis of comparison between cities. They are probably less accurate than physical measures, however, because businesses in Indonesia do not use standardized accounting practices. Furthermore, because contracts and payment records are not public documents, information on rates and amounts of payment cannot be verified. Private and public officials do not voluntarily reveal illegal but routine payments that are made to secure contracts. Because of such payments, income

records and rate-of-payment clauses in contracts do not represent the government's costs or the contractor's income accurately.

There are also methodological problems in deciding whether and how to combine financial measures of private-sector participation. For example, in the solid waste sector, private contractors collect and haul garbage in return for payments from the government, and generate compost that they can offer for sale to private buyers. It is not clear whether or how one should combine information on gross income from collection and hauling (which says nothing about the contractors' costs) with information on the costs incurred to produce compost (which says nothing about the contractors' income from sales of compost). It would also be impossible to develop reliable financial measures of private-sector participation as a percentage-of-total activity, since accurate information is not available on the government's investment and operational costs.

The scope of work for this assignment required that the team develop financial ("value-based") indicators. Despite their limitations, such measures are clearly desirable and are included here in the hope that procedures for measuring them accurately can be developed. However, because of problems in assuring the accuracy of financial measures of private-sector participation, the authors of this report recommend that physical measures be used as the primary indicators of private-sector participation.

Recommended physical and financial indicators of private-sector participation in the water, solid waste, and sanitation sectors are presented in Tables 9, 10, and 11, respectively.

Table 9

Recommended Physical and Financial Indicators
for Private-Sector Participation in the Water Sector

Component or Activity	Physical Indicator	Financial Indicator
Headworks	Capacity (liters per minute)	Amount invested in the current year and total cumulative investment (in current Rupiahs)
Raw water transmission	Length of transmission pipe (km)	
Water treatment plant	Capacity (liters per minute)	
Treated water transmission and distribution	Length of transmission pipe (km)	
Operation and maintenance of headworks and treatment plant	Capacity of facilities under O&M contract (liters per minute)	Income received in the current year for services rendered (in current Rupiahs)
Maintenance of transmission and distribution system	Length of pipe under maintenance contract (km)	
Reading water meters and preparing bills	Number of accounts serviced	
Collecting water bills	Number of accounts serviced	

Table 10

Recommended Physical and Financial Indicators
for Private-Sector Participation in the Solid Waste Sector

Component or Activity	Physical Indicator	Financial Indicator
Trucks for collection and transport	Number of trucks	Amount invested in the current year and total cumulative investment (in current Rupiahs)
Transfer stations	Capacity (cubic meters per day)	
Landfill sites	Capacity (cubic meters)	
Composting, recycling, and incineration facilities	Capacity (cubic meters per day)	
Solid waste collection and street sweeping	Length of roadway serviced (km)	Income received in the current year for services rendered (in current Rupiahs)
Transport from transfer station to landfill	Capacity (cubic meters per day)	
Processing and disposal	Capacity (cubic meters per day)	
Collecting bills	Number of accounts	

Table 11

Recommended Physical and Financial Indicators
for Private-Sector Participation in the Sanitation Sector

Component or Activity	Physical Indicator	Financial Indicator
Collector and transmission system for water-borne sewage	Length of pipe in system (km)	Amount invested in the current year and total cumulative investment (in current Rupiahs)
Off-site treatment facilities for water-borne sewage	Capacity (liters per hour)	
Septic tanks	Number installed per year	
Operation and maintenance of collector and transmission system	Length of pipe under maintenance contract (km)	Income received in the current year for services rendered (in current Rupiahs)
Operation and maintenance of off-site treatment facilities	Capacity of facilities under O&M contract (liters per hour)	
Pumping septic tanks	Volume of sludge removed per year	

5.2 Baseline Data

The initial and the supplementary survey gathered data with which to estimate the current ("baseline") levels of private-sector participation in water supply, sanitation, and solid waste management. They found some private sector activity in these three sectors in four of the cities surveyed: Semarang, Yogyakarta, Medan, and Bandung. Baseline levels of private-sector participation in Surabaya were estimated in an earlier study conducted by the A.I.D-sponsored Municipal Finance Project. Procedures for estimating the financial value of private-sector participation activity in the four cities were based on methods used in that earlier study.

Tables 12 through 17 present the baseline levels of private-sector participation in the four cities examined in this study, and in the earlier pilot study in Surabaya. Table 12 presents physical indicators for the four cities; Tables 13-16 present financial indicators. Physical indicators are reported as absolute ("raw") levels and as percentage-of-total; the financial measures are reported as absolute levels only. Table 18 summarizes the financial measures of private-sector participation across all eight cities examined to date.

5.2.1 Semarang

Solid Waste Collection, Transport, and Street Sweeping. Four companies have contracts to collect solid waste, sweep streets, and transport waste in Semarang. The companies collect waste along the same stretches of road that they sweep. They are responsible for sweeping and waste collection along approximately 28.5 km of main roads, which comprises approximately 7 percent of the main roads (430 km) in Semarang. Approximately 2,900 m^3 of waste is generated in Semarang each day, 10 percent of which (285 m^3) is collected and transported by the four private companies. The city sanitation service (DKK) collects and transports approximately 17 percent of the waste generated, and residents handle the remaining 73 percent by burning, dumping, and burial. In addition, private industries transport approximately 25 m^3 of their own solid waste each day.

The companies earn on average 54 Rupiahs (Rp) per year for each square meter of road cleaned and 3000 Rp per cubic meter of waste transported. These activities generate payments of 312.1 million Rp per year for solid waste transport and 7.7 million Rp per year for street sweeping. If private industry's transport of its own solid waste is valued at the same rate as the city pays for transport, then this activity generates an additional 27.4 million Rp per year in private sector activity.

Compost Production. One company receives solid waste from the DKK and produces compost in Semarang. The company's intake capacity is 250 m^3 per day and its processing cost is approximately 3,500 Rp per m^3. The company's total annual costs for compost production, therefore, are 319.4 million Rp. Although this estimate of costs is taken as a measure of private-sector activity, it may be misleading. The company temporarily ceased operations earlier this year because it was unable to use or sell enough of its product to make the business financially viable.

Table 12

Baseline Levels of Private-Sector Participation: Physical Indicators

Activity	% of PSP	PSP Quantity	Total Quantity	Comments
City of Semarang				
Street Sweeping and LPS to LPA transp. of area under DK responsibility	9.8%	285 m^3/day	2,900 m^3/day	4 private companies
LPA Management, Compost processing	8.6%	250 m^3/day	2,900 m^3/day	PT. Tri Utama Jinawi
Septic Tanks desludging by desludging trucks	9%	2,784 m^3/year	31,250 m^3/year	4 private companies, each has 3-4 trucks
City of Yogyakarta				
Septic Tanks desludging by desludging trucks	Not estimated	1,543 m^3/year	Not estimated	4 trucks operated by PT Chandra Kirana
Street sweeping of streets under responsibility of DK	4.8%	10.1 km	210 km	3 private companies Additional 130 km in kampongs under responsibility of RT/RW (LKMD)
City of Medan				
PDAM's Bill Collection	100%	All subscribers; 95% collection rate	135,000 subscribers	Contracted out to PT. Multi Yasa - for 5 years
PDAM's System Maintenance				
LPA Management Composting Process	0.6%	20 m^3/day	3,500 m^3/day	2 Koperasi, UD. Karya Pembangunan and PT Jaya Tani
City of Bandung				
DK's Bill Collection LPS to LPA service	0.1%	500 households	335,000 households	Pilot project with a cooperative in an army housing complex
City of Surabaya				
Transportation of DK managed solid waste from LPS to LPA	16%	1,327 m^3/day	8,000 m^3/day	19 privately-owned trucks
	40%	11.617 ha	29.044 ha	Estimated by DK as % of total area served
Street sweeping of streets under responsibility of DK	20%	100 km	500 km	Additional 300 km in kampongs under responsibility of RT/RW 24 private companies
PDAM's Bill Collection	100%	144,000 connections	144,000 connections	15 private companies
Septic Tanks desludging by desludging trucks	98%	2,500 m^3/month	32,000 m^3/month	10 private companies 1 DK truck Majority of septic tanks are being manually emptied and septage disposed of in the rivers

Table 13

Baseline Levels of Private-Sector Participation for Semarang: Financial Indicators

WATER:	Revenues Collected by Pvt (Rp mill)		Collection Fee (Avg)				Value of PSP Service (Rp mill)
PDAM Bill Collection	NA	x	NA			=	NA
SOLID WASTE MANAGEMENT:							
SOLID WASTE COLLECTION/TRANSPORT:	Volume by PSP (m3/day)		Operating Days/yr		Avg. Transport Charge (Rp/m3)		
Private Industry Direct Transport to LPA	25	x	365	x	3,000	=	27.4
LPS to LPA Transport	285	x	365	x	3,000	=	312.1
STREET SWEEPING:	Length (linear m)		Avg. Width (linear m)		Svc Charge (Rp/m2/mo) x 12		
Street Sweeping Contracted to Private (included above)	28,500	x	5	x	54	=	7.7
COMPOSTING:	Volume by PSP (m3/day)		Operating Days/yr		Value (Rp/m3)		
Composting at LPA	250	x	365	x	3,500	=	319.4
WASTEWATER:							
SEPTIC TANK DESLUDGING:	Volume (m3/mo) x 12		Avg m3/ trip		Avg. Charge (Rp/trip)		
Operated by Private	2,784	/	2.0	x	25,000.0	=	34.8
OTHERS NOT INCLUDED ABOVE:	(Specify method of estimating value)						0.0
	TOTAL VALUE OF SERVICES BY PSP					=	701.4

Table 14

Baseline Levels of Private-Sector Participation in Yogyakarta: Financial Indicators

WATER:	Revenues Collected by Pvt (Rp mill)		Collection Fee (Avg)				Value of PSP Service (Rp mill)
PDAM Bill Collection	NA	x	NA			=	NA
SOLID WASTE MANAGEMENT:							
SOLID WASTE COLLECTION/TRANSPORT:	Volume by PSP (m3/day)		Operating Days/yr		Transport Charge (Rp/m3)		
Private Industry Direct Transport to LPA	0	x	0	x	0	=	0
LPS to LPA Transport	0	x	0	x	0	=	0
STREET SWEEPING:	Length (linear m)		Avg. Width (linear m)		Svc Charge (Rp/m2/mo) x 12		
Street Sweeping Contracted to Private	10,117	x	8.8	x	1,546	=	137.6
COMPOSTING:	Volume by PSP (m3/day)		Operating Days/yr		Value (Rp/m3)		
Composting at LPA	0	x	0	x	0	=	0
WASTEWATER:							
SEPTIC TANK DESLUDGING:	Volume (m3/mo) x 12		Avg m3/ trip		Avg. Charge (Rp/trip)		
Operated by Private	1,540	/	2.0	x	25,000	=	19.3
OTHERS NOT INCLUDED ABOVE:	(Specify method of estimating value)						0
	TOTAL VALUE OF SERVICES BY PSP					=	156.9

Table 15

Baseline Levels of Private-Sector Participation in Medan: Financial Indicators

WATER:	Revenues Collected by Pvt (Rp mill)		Collection Fee (Avg)				Value of PSP Service (Rp mill)
PDAM Bill Collection	1,500	x	1.50%			=	22.5
SOLID WASTE MANAGEMENT:							
SOLID WASTE COLLECTION/TRANSPORT:	Volume by PSP (m3/day)		Operating Days/yr		Transport Charge (Rp/m3)		
Private Industry Direct Transport to LPA	0	x	0	x	0	=	0
LPS to LPA Transport	0	x	0	x	0	=	0
STREET SWEEPING:	Length (linear m)		Avg. Width (linear m)		Svc Charge (Rp/m2/mo) x 12		
Street Sweeping Contracted to Private	0	x	0	x	0	=	0
COMPOSTING:	Volume by PSP (m3/day)		Operating Days/yr		Value (Rp/m3)		
Composting at LPA	17.8	x	300	x	12,500	=	66.8
WASTEWATER:							
SEPTIC TANK DESLUDGING:	Volume (m3/mo) x 12		Avg m3/ trip		Avg. Charge (Rp/trip)		
Operated by Private	0	/	0	x	0	=	0
OTHERS NOT INCLUDED ABOVE:	(Specify method of estimating value)						0
	TOTAL VALUE OF SERVICES BY PSP					=	89.3

Table 16

Baseline Levels of Private-Sector Participation in Bandung: Financial Indicators

WATER:	Bill Collected by Private/year x 12		Collection Fee (Rp./bill)				Value of PSP Service (Rp mill)
PDAM Bill Collection	6,000	x	350			=	2.1
SOLID WASTE MANAGEMENT:							
SOLID WASTE COLLECTION/TRANSPORT:	Volume by PSP (m3/day)		Operating Days/yr		Transport Charge (Rp/m3)		
Private Industry Direct Transport to LPA	0	x	0	x	0	=	0
LPS to LPA Transport (including sweeping)	0	x	0	x	0	=	0
STREET SWEEPING:	Length (linear m)		Avg. Width (linear m)		Svc Charge (Rp/m2/mo) x 12		
Street Sweeping Contracted to Private (included above)	0	x	0	x	0	=	0
COMPOSTING:	Volume by PSP (m3/day)		Operating Days/yr		Value (Rp/m3)		
Composting at LPA	0	x	0	x	0	=	0
WASTEWATER:							
SEPTIC TANK DESLUDGING:	Volume (m3/mo) x 12		Avg m3/ trip		Avg. Charge (Rp/trip)		
Operated by Private	0	/	0	x	0	=	0
OTHERS NOT INCLUDED ABOVE:	(Specify method of estimating value)						0
	TOTAL VALUE OF SERVICES BY PSP					=	2.1

Table 17

Baseline Levels of Private-Sector Participation in Surabaya:
Financial Indicators

WATER:	Revenues Collected by Pvt (Rp mill)		Collection Fee (Avg)				Value of PSP Service (Rp mill)
PDAM Bill Collection	2,000	x	1.0%			=	20.0
SOLID WASTE MANAGEMENT:							
SOLID WASTE COLLECTION/TRANSPORT:	Volume by PSP (m3/day)		Operating Days/yr		Transport Charge (Rp/m3)		
Private Industry Direct Transport to LPA	1,000	x	220	x	1,100	=	242.0
LPS to LPA Transport	1,327	x	220	x	1,100	=	321.1
STREET SWEEPING:	Length (linear m)		Avg. Width (linear m)		Svc Charge (Rp/m2/mo) x 12		
Street Sweeping Contracted to Private	100,000	x	3	x	60	=	18.0
	Volume (m3/day)		Days/yr		(Rp/m3)		
Composting at LPA	0	x	0	x	0	=	0
WASTEWATER:							
SEPTIC TANK DESLUDGING:	Volume (m3/mo) x 12		Avg m3/ trip		Avg. Charge (Rp/trip)		
Operated by Private	30,000	/	2.3	x	25,000	=	326.1
OTHERS NOT INCLUDED ABOVE:	(Specify method of estimating value)						0
	TOTAL VALUE OF SERVICES BY PSP					=	927

Table 18

Annual Value of Services Provided Through Private-Sector Participation, 1992
(in millions of Rupiah)

SUMMARY OF 8 SURVEY CITIES

SECTORS	SURABAYA	SEMARANG	YOGYAKARTA	BANDUNG	MEDAN	PONTIANAK	UJUNG PANDAI	BEKASI	TOTAL
WATER									
PDAM Bill Collection	20.0	0.0	0.0	2.1	22.5	0.0	0.0	NA	44.6
SOLIDWASTE MANAGEMENT									
SOLID WASTE - COLLECTION / TRANSPORT									
Direct Transport LPA	242.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	269.4
LPS to LPA Transport	321.1	312.1	0.0	0.0	0.0	0.0	0.0	0.0	633.2
STREET SWEEPING	18.0	7.7	137.6	0.0	0.0	0.0	0.0	0.0	163.3
COMPOSTING	0.0	319.4	0.0	0.0	66.8	0.0	0.0	0.0	386.2
WASTE WATER									
SEPTIC TANK DESLUDGING	326.1	34.8	19.3	0.0	0.0	0.0	0.0	0.0	380.2
OTHERS NOT INCLUDE ABOVE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL VALUE OF SERVICES PROVIDED BY PSP	927.2	701.4	156.9	2.1	89.3	0.0	0.0	0.0	1,876.9

Septic Tank Desludging. Four companies have licenses to service septic tanks in Semarang, and each company operates three or four tanker trucks. The trucks have an average capacity of 2 m^3 and made a total of 116 service trips in April 1993. Assuming this is a typical level of activity, the four companies would transport approximately 2,784 m^3 of sludge each year. The typical service call costs 12,500 Rp for pumping a 1 m^3 capacity septic tank, generating revenue of 25,000 Rp per trip (two households served per trip) and a total annual income of 34.8 million Rp for the four companies.

The DKK estimates that approximately 62,500 families in Semarang (half of the population) have septic tanks with an average capacity of 1 m^3. Septic tanks should generally be pumped every other year; this level of service would generate 31,250 m^3 of sludge each year. The current activities of the four private companies, therefore, meets only 9 percent of the potential demand for pumping services. The DKK anticipates putting two trucks into operation later this year.

Summary. The total level of private-sector activity in Semarang for the three sectors studied is approximately 701.4 million Rp per year. This total includes 319.8 million Rp that the municipal government pays to private companies for street sweeping and solid waste collection and transport; 34.8 million Rp paid by private individuals for septic tank cleaning; and 346.8 million Rp in costs borne by private companies for hauling their own solid waste and producing compost from solid waste.

5.2.2 Yogyakarta

Street Sweeping. Three private companies hold contracts for sweeping 10.1 km of roads in Yogyakarta, which represents approximately 5 percent of the total length of roads in the city. The municipal cleaning service (DKP) cleans approximately 43 percent of the road length. Averaged across contracts, the companies earn 1,546 Rp per year for each square meter of road cleaned. The total annual income of all three companies from street sweeping is 137.6 million Rp.

Readers should note that the rate paid for street sweeping in Yogyakarta is apparently almost thirty times the rate paid in Semarang. Information collected in the supplemental survey does not explain this difference.

Septic Tank Desludging. One company operates four pumping trucks in Yogyakarta and provides service to 3,085 households, or approximately 4 percent of the population. Assuming that most subscribers have tanks with a capacity of 1m^3 and require service every two years, and that the company earns 12,500 Rp per service call, it will earn an annual income of 19.3 million Rp from pumping septic tanks and will transport 1,543 m^3 of sludge each year. These assumptions are based on information obtained in Semarang.

Summary. The total level of private sector activity in Yogyakarta for the three sectors studied is approximately 156.9 million Rp per year, including 137.6 million Rp paid by the municipal government for solid waste services and 19.3 million Rp paid by private individuals for septic tank service.

5.2.3 Medan

Water Bill Collection. The PDAM in Medan currently serves 135,000 subscribers over approximately 60 percent of the city's land area. One company has the contract for collecting payments on all water bills. The company receives a percentage of the total amount collected; the percentage increases as collection efficiency increases. For example, the company earns 0.75 percent of collected revenues if it collects 70 percent of the bills, and can earn up to 4.00 percent of collected revenues if it collects 100 percent of the outstanding bills. The contract also provides collection efficiency targets and bonuses and penalties if the company exceeds or fails to meet the targets. The company's performance has averaged about 95 percent collection efficiency, and it currently earns about 1.50 percent of the total revenues collected (1,500 million Rp), or approximately 22.5 million Rp per year.

Compost Production. One company has entered a "joint venture" with the regional sanitation service (PD Kebersihan) to produce compost at the area's LPA facility. The company's intake capacity is about 20 m^3 of solid waste per day, of which 89 percent (17.8 m^3) is usable for producing compost. The company expects to produce 250 kg of compost per cubic meter of solid waste processed, at a cost of 50 Rp per kg of compost produced. Assuming that the company will operate 25 days per month, it expects to generate an annual production of 1,335 metric tons of compost at a total cost of 66.8 million Rp. The company will pay the PD Kebersihan 3 Rp per kg of compost sold, generating payments of approximately 4 million Rp if it sells all of its product.

It is not clear whether the payments to the PD Kebersihan are a business tax, a payment for the solid waste input stream, or a return on an initial investment made by the PD Kebersihan as part of the "joint venture." Although the payment is apparently calculated on the basis of volume of compost sold, the market for compost is not assured. A cooperative that had been involved in compost production in Medan has recently ceased operation because of problems in marketing its product.

Summary. The total current level of private-sector participation in Medan in the three sectors studied is 89.3 million Rp per year. The PDAM pays 22.5 million Rp of this total to a private company for collecting payments on water bills; the other 66.8 million Rp is a private company's expected annual cost for producing compost, the market value of which is not clear.

5.2.4 Bandung

Water Bill Collection. The PDAM in Bandung collects payments from its subscribers and currently has an collection efficiency rate of 60-65 percent. The PDAM is studying efforts in Surabaya and Jakarta to improve bill collection efficiency and meter reading and is currently negotiating an agreement with a cooperative operating in an army housing complex to collect water bills from 500 subscribers, in an effort to improve collection efficiency in the complex. At the time of the supplemental survey, the PDAM was planning to pay 350 Rp for each bill collected. If this rate is agreed upon, the collective will have the opportunity to earn payments for collecting 500 bills per month, for a total of 2.1 million Rp per year.

Summary. The pilot effort in water bill collection is the only current private-sector participation in Bandung in the three sectors studied. It has the potential for generating 2.1 million Rp per year in revenues for a cooperative.

5.2.5 Summary and Conclusions

As shown in Table 19, the total value of current private-sector participation activity is approximately 1.9 billion Rp across the eight cities and three sectors examined. The reader should note that 1221.3 million of this total "activity" is expected *income* to private companies from fees, while 655.6 million Rp (35 percent) of the total consists of *costs* that will be incurred by private companies to produce compost or transport their own solid waste to a waste management facility. Data were not available with which to estimate anticipated income from compost sales. Although income and costs are obviously not equivalent, they have been added together in this study to generate an estimate of the total financial value of private-sector participation activity.

Private-sector participation is highest in Surabaya (49 percent of the total) and Semarang (37 percent), with substantially less activity in Yogyakarta and Medan and only a small pilot effort in Bandung. Considering the size of these cities (see population figures in Table 5), the per capita level of private-sector participation in Yogyakarta is roughly comparable to that of Surabaya and Semarang. Bandung and Medan are comparable in size to Surabaya and thus, the levels of private-sector participation in these two cities are minimal.

The great majority (77 percent) of private-sector participation is in solid waste management. Septic tank desludging accounts for 20 percent of the total and water bill collection for approximately 2 percent.

Of the total level of private-sector participation, 42 percent (796.5 million Rp) consists of payments from local or regional sanitation agencies to private companies for providing services for which the agency is responsible (collecting and transporting solid waste, sweeping streets). Funds for these payments come out of the agencies' operating budgets. Activities in these categories serve primarily to extend service to a greater area than the agency could serve without private-sector participation.

Private-sector participation in three other categories (water bill collection, composting, and septic tank desludging) do not depend on existing agency budgets and act to some extent to mobilize private funds for environmental management. Private companies involved in water bill collection have proven to have higher collection efficiencies than PDAMs; thus, they generate additional funds for the PDAM as well as earning fees from the PDAM. Companies involved in compost production sell their product to generate income and share their income in some manner with public agencies, e.g., through fees, taxes, or providing compost to a city landscaping service at a subsidized price. And all existing septic tank desludging services are provided by the private sector and paid for by private subscribers; this activity, therefore, is completely "off-budget" as far as public funds are concerned. Private-sector participation activities in these categories amounts to 811 million Rp, or 43 percent of the total.

Based on the results of the survey of baseline levels of private-sector participation in eight cities, this study makes the following conclusions.

- All of the private sector activity observed in the three sectors studied is in services, primarily under contract to public agencies. Private-sector participation in urban environmental management does not, at this time, include large private investments in infrastructure.
- Although current modes of private-sector participation are not generating large investments ("additionality"), they are mobilizing private funds to some degree in all three sectors: water supply (by increasing collection efficiencies for water bills); solid waste management (in compost sales); and sanitation (septic tank desludging).
- In private-sector participation categories in which public agencies are responsible for providing services, agencies have used the private-sector option primarily to extend coverage rather than to improve efficiency. The level of private-sector participation is almost 20 times greater in solid waste services (796.5 million Rp for collection, transport, and street sweeping) than in water bill collection (44.6 million Rp). (Note: public agencies are not responsible for direct transport of solid waste, producing compost, or septic tank desludging).
- Two cities (Surabaya and Semarang) have dramatically greater private-sector participation than the other cities examined, in terms of total amount of activity and the number of categories in which there is private-sector participation. As noted earlier in this report, the mayors in these two cities are clearly committed to increasing private-sector participation and have acted somewhat proactively, rather than waiting for central government agencies to develop comprehensive guidance and models for private-sector participation. The experience in these cities demonstrates the potential for greater levels of private-sector participation in other cities if their mayors become more proactive or if appropriate guidance is made available. It also demonstrates the importance of promoting private-sector participation in a variety of categories.
- Unit fees for services provided by private companies differ substantially across cities. These differences are due in part to adjustment factors applied by city and regional agencies in calculating the companies' expected costs. These differences should be examined in greater detail to determine to what extent they are warranted by unique conditions and, when not warranted, what steps are needed to ensure more consistency among cities.

Readers who wish to understand the results of the baseline survey in greater detail should consult the report of the supplemental survey, attached as Appendix G.

Readers should note that the current baseline level of private-sector participation in the three sectors estimated is dwarfed by activity in other sectors examined in the general survey, most notably the construction and renovation of markets. Whereas the total baseline activity in water supply, solid waste, and sanitation across five cities is approximately 1.9 billion Rp, private investment in a single market project is typically between 1.5 and 25 billion Rp, and there are many private market projects in each city.

Chapter 6

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

Several general conclusions may be drawn from the experience and the impressions of the survey team.

High Level of Private-Sector Activity Locally

Given that the urban services covered by this study exist within a centralized government system and that there has been little guidance from the central government, a lot of private-sector activities exist at present at the level of local government responsibility. Admittedly, the definition of "private-sector" used in this study was broad, but even so, the level of private-sector activity is high, especially in the solid waste sector and in markets. If the regulatory climate were more conducive to private-sector participation, this already high level of private involvement would greatly increase.

While large centrally dominated investment projects ($50-150 million) require new working relationships and procedures that have yet to be worked out, locally dominated investment projects in the range of $2-20 million have been executed successfully for decades.

Low-Level of Water-Related Sector Activities, Except in Solid Waste

Private-sector investments in water supply always face the problem of reconciling welfare-oriented matters, such as low tariffs, cross-subsidies, and social impact, with the need to make a profit. This issue is very hard to resolve because it involves government policy. A full discussion of this issue is presented in the WASH Water Policy Study.

Lack of Procedures and Systems for Promoting Private-Sector Participation

In the absence of clear central government directives and guidelines, the character of the Walikota or mayor is key to the local private-sector participation process because he must take responsibility for any negative effects of private-sector activities.

In many cases, it was difficult to determine whether private-sector activities had been initiated by the PEMDA or the private organization. But it is clear that the PEMDAs generally have no systems or procedures for identifying opportunities, creating bidding documents, and tendering proposals for the private-sector. Private-sector interviewees that had relationships with PEMDAs had few complaints, but those without such relationships complained of the difficulty in approaching the PEMDA and the lack of cooperation of mid- and lower-level officers. The single

most important lesson to be learned from failed private-sector activities is that improved procedures are needed.

PEMDAs rely little on market forces. For instance, they rarely use market (open price competition) for BOT or service contracts. In most cases, the valuation for a service contract is an estimate of the PEMDA's costs for providing the same services. A large amount of procurement for commercial private-sector participation (including Semarang and Nusa Dua water supply) appears to have been by sole-source appointment.

Lack of Understanding of the Advantages of Private-Sector Participation

When the private-sector contracted to provide service, in almost every case the reason given was that the local government agency did not have the manpower to provide the service itself. In cases where the agency had the autonomy to raise and spend user fees, local government officers did not see much potential for private-sector participation because the agency already had the resources it needed. Further, they rarely mentioned the efficiency advantages of private-sector participation.

In general, government officers seemed keenly aware that their superiors favored private-sector participation and that private investment could save government funds. But their perceptions rarely extended to the idea that in many instances small companies which are free from bureaucratic encumbrances may operate at greater benefit and less cost to the taxpayers than the PEMDA. In general the team got the impression, especially from mid- to lower-level PEMDA officers, that government was like a watchdog protecting the people from the profit-oriented private sector. In such an atmosphere, successful private companies must be those which have strong high level connections.

Potential for Further Development of Private-Sector Participation

The greatest potential to enhance and streamline investment-type private-sector participation is in three locally dominated subsectors: markets, slaughterhouses, and terminals. Private investment already exists in all three subsectors in amounts of $2 million or more.

6.2 Recommendations

1. The central government should provide clear guidelines and policy directives for increasing private-sector participation, such as the following:
   - A system (such as an open auction) for valuing the land and the permission-giving capacity of a PEMDA in trading for investment in market upgrading, new building, and concession-granting.
   - A program to orient local governments toward private-sector participation.

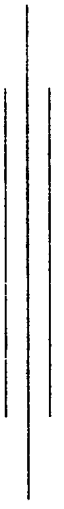
- A policy statement endorsing private-sector participation not only as an off-budget investment and additional source of human capital, but also as a potentially cheaper way of providing urban services.
- A provision, probably by institutional change, for planning, preparing, longlisting, shortlisting, and tendering private-sector participation projects.
- Guidelines for procurement of private-sector participation projects.
- Planning for annual budget reductions and for reassigning government workers whose jobs may be eliminated as a result of private-sector participation.

2. The task of monitoring private-sector participation would be enhanced by establishing a simple reporting system, preferably through the Ministry of Home Affairs. Under this system, each responsible Tk II department could report on an annual basis to Jakarta (through the BAPPEDA) basic statistics regarding private-sector participation in activities for which local government is responsible. The indicators need not include all of the subsectors surveyed in this study, but they should include at least the following:
   - Headworks
   - Raw water transmission
   - Water treatment facilities
   - Treated water transmission lines
   - Water distribution
   - Water bill collection
   - Water meter reading
   - Maintenance of transmission or distribution system
   - Commercial, industrial, and residential solid waste collection service
   - Sanitary landfill areas
   - Off-site sanitation
3. The PEMDAs should develop a system for identifying opportunities, creating bidding documents, and tendering proposals for the private-sector.

APPENDIX A

Team Planning Meeting Notes

Survey of Private Sector Participation in Selected Cities in Indonesia



Water and Sanitation for Health Project
(WASH TASK # 399)

October 1, 1992

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Survey of Private Sector Participation in Selected Cities in Indonesia

PURPOSE STATEMENT

o. to conduct a survey of experiences, opportunities, constraints to PSP in urban services in selected cities;

o. to suggest indicators for monitoring PSP program under GOI/USAID Policy Action Plan.

Survey of Private Sector Participation in Selected Cities in Indonesia

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   - o. Indonesia
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   - o. Waste Water & Sanitation
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INTEGRATED AREA DEVELOPMENT (IAD)	– HOUSING } – INDUSTRIAL } ROADS – COMMERCIAL } DRAINAGE
SINGLE FUNTCION COMMERCIAL (SFC)	– TERMINALS – MARKETS

Private Sector Participation in URBAN SERVICES SURVEY

S E C T O R S

Types of P.S.P	Water Supply	Waste-water & Sanitation	Solid Waste Management	Integrated Area Development	Single Function Commercial
CONCESSION					
BOT/BOO					
(Equity Investment)					
- Full Private					
- Joint Venture					
LEASING					
MANAGEMENT CONTRACT					
SERVICE CONTRACT					
SHARED FINANCING					
(Matching Funds)					
COMMUNITY BASED					

SUMMARY SHEET

City : Bekasi

Sector : Water Supply

Types of P.S.P	Water Treatment Transmision	Bill Collection	Meter Reading	Pipe Maintenance	
– CONCESSION – BOT/BOO (Equity Investment) – Full Private – Joint Venture LEASING MANAGEMENT CONTRACT SERVICE CONTRACT SHARED FINANCING (Matching Funds) COMMUNITY BASED					

SUMMARY SHEET
City : Bekasi
Sector : Waste Water & Sanitation

Types of P.S.P	Treatment Plan	Collection (transportation)	Disposal
- CONCESSION - BOT/BOO (Equity Investment) - Full Private - Joint Venture LEASING MANAGEMENT CONTRACT SERVICE CONTRACT SHARED FINANCING (Matching Funds) COMMUNITY BASED			

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c). private contracting
(Bill collecting/meter reading – Surabaya, Solid Waste – SOR)

d). IAD type investment (BSD/Serpong)

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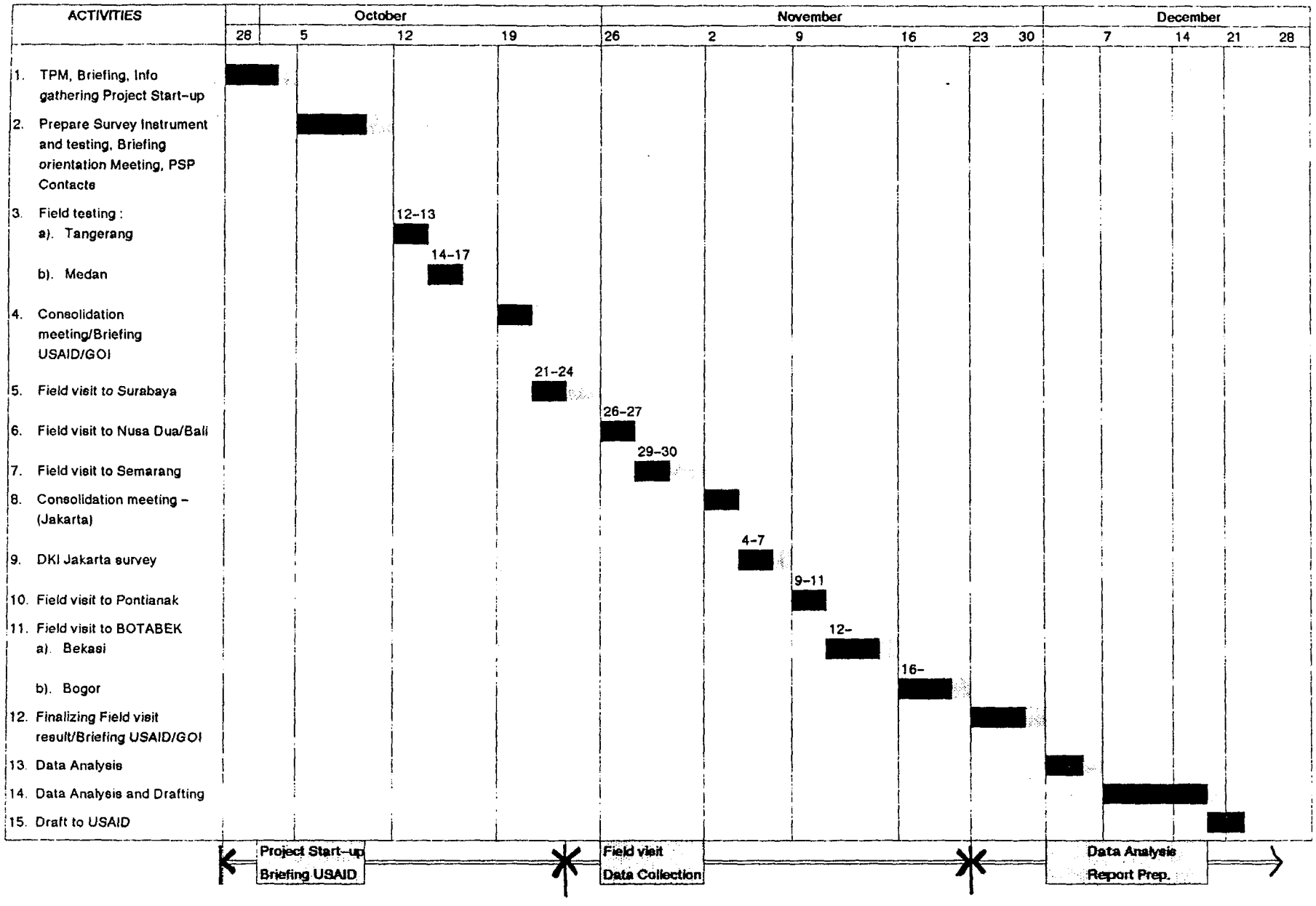
Data Collection – individual sectors

TENTATIVE DATE
FOR SITE (CITY) VISIT

1.	Kotip Tangerang (Serpong)	:	October 12– 13, 1992
2.	Kotamadya Medan	:	October 14 – 17, 1992
3.	Kotamdaya Surabaya	:	October 21 – 24, 1992
4.	Nusa Dua, Bali	:	October 26 – 27, 1992
5.	Kotamadya Semarang	:	October 29 – 30, 1992
6.	Jakarta	:	November 4 – 7, 1992
7.	Kotamadya Pontianak	:	November 9 – 11, 1992
8.	Kotip Bekasi	:	November 12, 1992
9.	Kab. Bogor/Kotamadya Bogor	:	November 16, 1992

Work Plan Schedule



CITY PROFILE

YOGYAKARTA

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1. GENERAL OVERVIEW

The development of the city of Yogyakarta to its present form is closely related to the existence of the *Kesultanan* or Sultanate Ngayogyakarta Hadiningrat. It was first established in circa 1755 through the Gianti Treaty by Sultan Hamengku Buwono I. The first physical construction to modernize the city of Yogyakarta was begun in 1870 with the building of the railway station, housing complexes, shopping complexes along Malioboro Street, the Governor's Office and the Vredeburg Fortress.

Yogyakarta Municipality, which now functions as the capital of the Province of the Special Territory of Yogyakarta was once the capital of the Indonesian State for nearly 4 years (January 1946 to December 1949). The administrative area of Yogyakarta Municipality covers 32.50 hectares, divided into 14 subdistricts and 45 villages. Situated on low-land 114 m above sea level, Yogyakarta municipality had a population of 435,061 at the end of 1989. The average population growth per annum was about 1.69% during these last five years.

Several main functions which have had a strong influence on the physical and economical development of the city are the business, government and transportation & communication sectors. In 1988 these three sectors contributed to PDRB 26.51%, and 15.12% and 14.59% each; on the other hand, the agriculture sector contributed only 2.18% in the same year. The per capita income rate at the end of 1988 may, in general, be regarded favorably, i.e. Rp. 820,000, with a 9.69% increase per annum. The 1989/90 income realization of the National Budget II of Yogyakarta Municipality was about Rp. 13.3 billion, composed of 61% from the Central Government and UKP's 32% from PADS, and 7% from other incomes. Furthermore, for the development expenditure post, which amounts to 48% of the total income, it is seen that the biggest portion of expenditure was held by the three main sectors, i.e. the tourism sectors covering Rp. 1.64 billion or 32%, followed by the State Apparatus sectors with its portion of 22%, and the commerce sector with 12.50%. It is evident that of the 18 existing development sectors, these three accounted for 66.50% of the entire value of the development expenditure in 1989/90.

Based on the above, the development of Yogyakarta Municipality in the future will indeed be supported by those three main sectors, with the tourism sector being at the forefront. The main problem facing the Yogyakarta Local Government in realizing the area's full potential is in supplying physical infrastructure facilities such as roads and electricity, and the narrow physical boundaries of the city itself.

2. REVIEW OF PSP ACTIVITIES

Yogyakarta Municipality's main attribute relating to the private sector's activities is its potential as one of the country's main tourism destinations. In general, the society of Yogyakarta is already more open and quicker to receive the new ideas which develop their city than some other areas. On the other hand, the influence of the society's culture is still strong, where the existence of the Sultanate or "*Kraton*" is still a determinative factor. This leaves the Local government of Yogyakarta Municipality facing two attitudes that must be approached simultaneously, i.e. try to make optimum use of the area's specific potential,

while maintaining the society's cultural values and sense of history. The development of the city of Yogyakarta can therefore be regarded as the product of a society which is capable enough to market its city while preserving its cultural values. Thus the development of private participation activities, especially in the area of city facilities, tends to meet the needs of its role as a city rather than its population's demands.

The role of the private sector and the society is more prominent as supporting the Local Government's activities. The private sector's role in the city's infrastructure activities is still localized in the sense that it is close to the location or relating to the activities they run; it is not yet a pure private participation at the municipal level. In short, the city of Yogyakarta still has small scale participation by private enterprise and usually "non capital intensive". Several forms of cooperation have been tried, mostly in the area of Market Places and Recreation/Tourism. These types of private cooperation usually developed as joint ventures between the Local Government and the investor, or with an approval of management rights for a certain period (BOT system). In Yogyakarta Municipality there are three types of real property, i.e. Kesultanan, Pakualaman, and the Local Government. The proprietor of Pasar Beringharjo area, for instance, is the Kraton's Family, while it is managed by the Local Government, and was built by an investor. As can be seen, there are almost always three sides working together in private development activities.

The experience of Yogya Municipality apparatus with private development enterprise is still very limited, as is its individual perceptions thereof. Although the directives and policies of the Local Government of Yogyakarta Province are obvious and clear towards the role and the importance of the private sector's participation, it has not yet developed a favorable private investment climate. The factor of the traditional culture on one side, and its tourism potential on the other, continue to weaken the Local Government's ability to define a private participation concept suitable for the character of Yogyakarta City. Initiatives usually come from the investor's side concerning facilities development in Yogyakarta city, at which time the Municipal Government makes a study according to the regulations and situation. This situation is regarded by many investors as proof that the Municipal Government has not yet fully considered realizing the optimal potential of the city.

3. SECTOR ANALYSIS

3.1 Water Supply

3.1.1 Experience

So far there has been no experience in investment cooperation with private parties, except working with contractors or consultants , such as in the planning and construction management involving PT. ENCONA and SGV. Viewed from the present service rate, 43% of the 430,000 city's population have been supplied by the PDAM pipe network (in recent years). All the basic water resources are in Sleman Regency (springs, wells, and treatment). The installed capacity is 1,050 liters/second, and the amount used is circa 600 liters/second by 20,455 customers (of which 4,000 customers are outside the Municipality region). The

proportion of domestic/non domestic use is about *85 : 15*, with the average water production basic tariff of Rp. 125/m^3.

In anticipating the development of commercial activities, Yogyakarta Province has prepared a Perda for the fees for ground water use. For Yogya Municipality, the total collection of fees for ground water use is from about 18 customers consisting of hotel and hospital buildings.

3.1.2 Opportunities

Presently the PDAM is still capable and does not need the participation of private investment. 13 out of 14 existing subdistricts have been supplied by the PDAM meaning that nearly the whole physical area of Yogya city has been served with a pipe network. Moreover, the small proportion of industrial activities (about 15% of the non domestic customers' potential), makes the installed capacity and its capability to cover the whole Municipality "idle", at least for the time-being. Also, in upgrading the efficiency of collecting water bills, the PDAM plans to do the billings through *BRI* (Bank Rakyat Indonesia), where the consumers themselves should pay bills at the nearest BRI branches.

3.2 Sanitation

3.2.1 Experience

In the sanitation and waste water sector, there is practically no experience that can be analyzed in relation to the cooperation or participation of the private sector. All activities are done under the Dinas Kebersihan dan Pertanaman, Waste Water Section, except for desludging and transport, which is all managed by private desludging trucks.

Generally in Yogya Municipality, there are two kinds of sanitation systems, i.e. on-site and off-site. Especially for waste water service, Perda No. 9/1991 has regulated the sanitation or waste water system and user fees. At present, most of the sewage drain (dirty water) network of 108 km is a heritage from the Dutch, built in 1936, and separated from rain water gutters. The service region is 626 Ha or 22% of Yogya Municipal area with a population of 91,800 people or circa 6,000 households. Viewed from the composition of connections, there are 4,460 connections (domestic and non domestic). The problem is that there is no waste water drainage facility, and so far it flows to rivers and rice fields.

For the sanitation sector, the customers of desludging number about 3,885 households, but the Yogya Municipality has no official location for end disposal. The suction and transport is served by 4 trucks, all of which are owned by a private company, PT. Chandra Kirana. However, there is a pilot project in Ngasem for building a single unit treatment plant with a capacity of 10 liters/second with aid from JICA.

3.2.2 Opportunities for Increasing PSP

Up to now and in the near future there is no plan yet to involve private sector investors in the management of waste water and sanitation service activities. The existing potential, viewed from the amount of income of the Dinas Kebersihan is still very small. The income of the recent year is about 9.13 million; and a local regulation which regulates the new user fees is being planned, so the target for 1992/93 is expected to rise to Rp. 13.70 million.

3.2.3 Constraints to the Development of PSP

Efforts to increase customers are hindered by the high cost for expanding the present waste water system, so that during the last five years the income only comes from the old customers (no additional customers). Besides, there arise many problems in developing this waste water system. Among others is the society's lack of awareness of the use of drainage, so that it influences the user fees.

3.3. Solid Waste

3.3.1 Experience

The city's Solid Waste in Yogyakarta Municipality is managed by the *Dinas Kebersihan dan Pertamanan*. Similar to the PDAM mentioned previously, the *Dinas Kebersihan Pertamanan* has also no experience in the form and activities of PSP at a city scale. Where it does exist, it is only local and has only a certain interest for the related private investment activities, such as around the hotel or hospital areas.

Dinas Kebersihan dan Pertamanan serves up to 67% of the area of Yogyakarta city. Viewed from the subdistrict units, only 4 out of the existing 14 subdistricts are not yet served. On the other hand, the society's awareness of sanitation is quite good; that is to say that they voluntarily carry their garbage from their house to the nearest LPS, and this is a great help for the *Dinas Kebersihan dan Pertamanan* having a limited service capacity for the time being.

The volume of solid waste production per day reaches circa 1300 m^3 and only 65% can be transported. With the street length of circa 241 km, only around 40% can be swept by the *Dinas Kebersihan dan Pertamanan*. The rest is mostly done by the people and 3 private street sweeping companies, covering only 5% of the total street length (including the sweeping of Mangubumi and Malioboro streets done by the surrounding hotels). The "natural" recycling process goes on well from the households up to the *LPA*, so that the total volume decreases about 20-25%. Besides, many inhabitants dump or make their own end disposal location, and then burn the Solid Waste.

Then, the private sector's role in parks can be regarded or classified as a participation elicited by the local government, and it has to be localized. There is no plan or realization yet for establishing a city-scaled development or maintenance plan - for example through advertising potential as well.

3.3.2 Opportunities for Increasing the Private Sector's Participation

There was once a prospective investor who wanted to invest in compost processing at an *LPA*, but the project was abandoned because of technology and marketing. Since the society's awareness is great enough and Yogyakarta Municipality is not so extensive, the Local Government expects the private sector's participation in the management of *LPA*'s.

3.3.3 Constraints to Developing the Private Sector's Participation

The tariff fixing structure is quite complicated. The non-commercial tariff is very high, so there will be many delinquent payments. The domestic tariff is difficult to affix due to cross-subsidy considerations. This situation causes a very limited income to the *Dinas Kebersihan dan Pertamanan*.

3.4 Integrated Area Development

The *PSP* activities in this sector is not great. Investment in the housing sector is unfeasible, because the Municipality's area is small, the price of land is high, and the allocation limit for a housing complex is only 50% of the total built up area plan (according to the City's Principal Plan of Yogya Municipality). This is why many developers do not invest in the Municipality area/region; and even if there is, it is only of a small scale, according to a certain market segment.

In the City Plan of Yogya Municipality, there is no special area planned for industrial activities in the city of Yogya. The cause is similar to the above, only the spreading of small scale industries is regulated.

3.5 Single Function Commercial

3.5.1 Markets

Experience

Compared with other types of commercial activities, the market sector is one of the most intensive activity sectors, viewed from the involvement or cooperation between the Local Government and investors. In its present form as *Dinas Pasar*, the cooperation between the *Dinas Pasar* and the private investor is directly handled by the Municipality Local Government, that is *BAPPEDA*.

Up to now, there are about 30 markets in Yogyakarta Municipality, both large and small. In traditional markets, the security, orderliness and sanitation matters of the market building are done by the traders themselves (self-supporting). Activities include the maintenance of market buildings, such as small repair and painting. For security of the market, guards are

hired by the traders themselves (the amount is about 75% of the need for market guards in all the markets of the Municipality).

As for sanitation, the traders put their solid waste into plastic bags which the Market Service takes to the *LPS*, from which it is transported by the *DKP* to the end disposal location. Totally, all the markets in Yogya Municipality produce about 115 m^3 solid waste per day, 95% of which is transported by the *DKP* from the *LPS* to the *LPA*, the rest being transported by the *Dinas Pasar*.

Construction or rehabilitation of several markets including Demangan, Serangan, Prawirotaman and Kranggan markets was managed with the involvement of private parties. Those four markets are by chance *ex-INPRES* (30% out of 30 existing markets are built with the *INPRES* fund already repaid).

There are plans to build a Main Market (first class market) serving the whole Yogyakarta Municipality, if the status of the *Dinas Pasar* is changed to *P.D.*.

There are 13,500 traders in those 30 markets, 60% of which trade in five main markets (Beringhardjo Market accommodates about 4,935 traders, Demangan, Kranggan, Serangan and Prawirotaman Markets accommodate 3,245 traders). Seen from the income point of view, 50% of the total income comes from Beringhardjo Market and about 25% from the other four markets. This shows that the private participation accomplishment covers a great deal of the market activities in Yogyakarta Municipality, although seen from the amount of the *Dinas Pasar* income (about Rp. 3 billion in 1990/91) it is still small for a Provincial capital.

Referring to the above four markets, there were two private investors who constructed buildings with a management contract system (BOT). Those investors have a working scope of rehabilitating the buildings and market facilities, and then managing them for a definite period before returning them to the Yogyakarta Municipality Local Government.

A hotel and shopping facility (plus a parking area) is being built in the area surrounding Malioboro named *Malioboro Plaza* - this activity is also a BOT cooperation between the Local Government Level I and an investor (PT. Yogyakarta Indah Sejahtera). The Municipality only gets the income tax I and the parking fees. This BOT cooperation/joint venture was signed in about 1991 and has a concession period of 25 years.

Generally the initiative for cooperation in the management of the above markets originates from the investor's side, who then presents his proposal for approval to the District Head/Agency for Regional Development. Particularly for Beringharjo Market, in the beginning, its rehabilitation was financed with a Local Government loan, amounting to Rp. 10.5 billion from the state Commercial Enterprise (composed of Rp. 9 billion as a loan from Yogyakarta Municipality and Rp. 1.5 billion from the Provincial Local Government). When the physical construction was completed (1991), another investor (PT. Cakrawala Gupala Asri) entered who wanted to increase the physical building of the new market into a multi-storied edifice and requested a management right for a period of 20 years (BOT system). The Local Government agreed by giving him the management right, and the investor had to deposit Rp. 200 billion per year (in fact the investor at once paid Rp. 4 billion cash).

Opportunities

In anticipating competition from supermarkets run by private companies, the *Dinas Pasar* has no intention yet of inviting investors to cooperate in building new markets of a more up to date nature. It seems that the Local Government of Yogya Municipality still retains markets with traditional style so as not to burden the existing small traders. Besides, in building supermarkets, the Local Government has to face, a lack of land in Yogya Municipality on one hand, with increasing pressure from the middle class and upper class for them on the other. Nevertheless, the *Dinas Pasar,* in a limited way, tries to develop the traders in facing the present development and competition as well as to improve their service to buyers.

Besides the four markets already described, there are four other markets in the process of proposal presentation - and at present in the "feasibility study" phase as a preliminary to the signing of their "MoU BOT".

In addition to the above private sector participation cooperation activities (including Giwangan Market which is self-supported by traders with an investment value of about Rp. 600 million), the Local Government is planning to build a car park/parking lot to the north of Garuda Hotel (parallel to the railway, about 1 ha). The investor has presented the proposal, and is now compiling a "feasibility study" (performed by CV. Karya Tunas Abadi and PT. Timas Planindo Dinamika) in reply to the Local Government's request.

Constraints

The amount of income from market business could reach around Rp. 3 billion, if the status is promoted to *P.D. Pasar*. At present, with its limitations the *Dinas Pasar* collects user fees and deposits them to BPD on their own on an average income of about Rp. 1.1 billion (45% of this income is for the operational budget of the *Dinas Pasar*) Viewed from the efficiency of the income received, it will influence the role of *Dinas Pasar* as a partner of the private sector for a joint investment.

Another obstacle is that the management of the private participation activities coordination has not been clearly set up in the agency structure of the Municipality Local Government. Meanwhile, all activities in relation to private joint venture are still handled by the *BAPPEDA* with directives/guidelines given directly from the Mayor of Yogyakarta Municipality. There is another obstacle which indirectly hinders the development of construction joint ventures with the private sector, i.e. the Local Regulation that the maximal height of buildings along Malioboro be limited to 3 stories. Although the regulation only applies for Malioboro area, the potency of its economic appeal is so strong, generally a great deal of investors want to invest in that region.

3.5.2 Other Facilities

Slaughterhouse

In Yogya Municipality there is only one slaughterhouse facility which was built in 1926 and is under the *Dinas Peternakan*. The average slaughter per day is 45 cows and 35 pigs. So, raising its status to a *PD* will require a long time. The distance between this slaughterhouse and those of other regencies (Sleman & Bantul) is relatively near. In connection with the above factors, it is evident that the potential and activity scale of the slaughterhouse facility in Yogya Municipality is still very small for involving the private sector to participate in this activity.

A constraint generally found is that the distribution system of the slaughterhouse product is still not in order. Its marketing flow is not clear, for local distribution as well as for export.

Parking Facility

Cooperation in this field has been made, but the experience of parking cooperation with the private sector was not good, i.e. the target could not be reached by the private company, which would only collect Rp. 19 million per year. The Local Government took it over again through *Dispenda*. Hence, the income gradually rose again to Rp. 225 million (recent year), this is only about 70% of its collection efficiency potential.

4. SUMMARY AND CONCLUSION

4.1.1 Summary of the Private Sector's Participation

This is a summary of the private sector's participation in related sectors at present as well as the potency of opportunity for participation that can be developed. For the water supply section, as of the time of this report, no private participation form has been executed, even for the near future, and there is no plan further to develop the above type of cooperation.

4.1.2 Conclusion

The private sector's role in the city's infrastructure activities is still localized in a sense that it is close to the location or relating to the activities they run.

Based on the diversity of private sector's participation, the markets in the Yogyakarta Municipality have a specific character with its potential (for a Tourism City), beside the modern Shopping Center (Plaza, Mall) and enough parking facility which has not existed before.

An interesting point of private sector participation in Yogyakarta Municipality is that the activity will be based on the tourism businesses. The private sector have seen this

opportunity for quite a while, but the local authority has not put this interest to the right position for public services. *KADINDA* is aware that the potential for private investment and the mobilization of private capital haven't been fully realized.

PSP FORM SUMMARY

SECTOR : SOLID WASTE MANAGEMENT
SUB SECTOR :
CITY : YOGYAKARTA

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO						
o. BOT		o				
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract					o	
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT	■			■		

Notes :

1 = Recycling Process/Treatment
2 = Composting Installation
3 = Collection/Transportation
4 = Street Sweeping
5 = Landscaping/Gardening
6 =

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : WASTE WATER/HUMAN WASTE
SUB SECTOR :
CITY : YOGYAKARTA

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO			■			
o. BOT	o					
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Off-site Treatment and/or Main Pipe System
2 = On-site Treatment
3 = Human Waste Disposal Truck
4 =
5 =
6 =

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : SINGLE FUNCTION COMMERCIAL
SUB SECTOR : MARKET
CITY : YOGYAKARTA

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO						
o. BOT	■					
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract	■					
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT	■					

Notes :

1 = Rehabilitation/Up-grading Existing Building
2 = New Building Construction
3 = Management and Computerization
4 =
5 =
6 =

■ = Present
o = Possible

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APPENDIX B

Scope of Work

Scope of Work

INDONESIA: Survey of Private Sector Participation of Urban Services at Selected Cities under the PURSE Project

BACKGROUND

In order to increase the absolute level of funds invested in urban infrastructure and services, and increase the efficiency of urban services provision, the Government of Indonesia's (GOI) Urban Policy Action Plan has adopted the strategy of increasing Private Sector Participation (PSP) in the provision of urban services. While construction of publicly financed urban infrastructures is almost always contracted to private sector firms, the Private Sector is currently not otherwise heavily involved as an investor in urban infrastructure and service projects as a provider of services directly to consumers (except in the areas of housing and transportation), or as a provider of contracted services to local departments and enterprises.

Much work has already been done by the GOI, and will continue to be done by the USAID/Indonesia-GOI Private Participation in Urban Services (PURSE) Project, as well as by other donor projects--notably the World Bank Technical Assistance Project for Public and Private Provision of Infrastructure. The goal is to increase private sector participation as equity investors in large, capital-intensive Build-Operate-Transfer (BOT) and Build-Operate-Own (BOO) infrastructure projects such as toll roads, electricity generation, and water source development, transmission, treatment, and distribution. To supplement this work, the PURSE Project will assist the GOI to address the need for increased private sector participation (both commercial and non-commercial) in less capital-intensive, smaller scale urban services, and in the provision of contracted services to local government departments and enterprises.

In addition to commercial private sector participation, there is also a need to explain the role of non-commercial community participation (Partisipasi Masyarakat) in the provision of urban services. As community participation, or Partisipasi Masyarakat, already makes a substantial contribution in providing urban services, it is important to address ways to increase this non-commercial PSP in ways that complement rather than conflict with an increased role for commercial PSP.

To immediately initiate PURSE Project activities during the bridging period, USAID/Indonesia has requested that WASH provide technical assistance to conduct a survey of the actual PSP experiences of several local governments, and identify opportunities and constraints to this participation. Using the results of this survey, a Working Group for PSP at the local government level will be formed consisting of representatives of MOHA (BANGDA, PUOD, and selected local government participants), MOPW, MOF, and BAPPENAS to develop practical strategies to support privatization at the local government level. These activities may include a combination of:

1) Recommended Central Government legal/regulatory changes or supports to local government;
2) Provision of practical guidelines to local governments for privatization of specific services using specific approaches (e.g. concession agreements, management contracts, service contracts, etc.);
3) Dissemination of information to local governments on experiences at other locations;
4) Training and technical assistance to local governments;
5) Pilot projects for innovative approaches to privatization of urban services by local governments.

While the PURSE Project is intended to emphasize increased private sector participation in the provision of urban services related to water, wastewater, and solid waste management, the initial survey of PSP is not to be limited exclusively to these three types of urban services.
Additionally, the PURSE Project will need to develop a set of simple and reliable monitoring indicators to measure the extent of the increase (or decrease) in private sector participation of urban services during Urban Policy Action Plan implementation, and the implementation of the PURSE Project. Ideally, the design of these indicators and the collection of baseline data can be combined with the above mentioned survey of local governments' experience in Private Sector Participation in urban services, and analysis of opportunities and constraints.

OBJECTIVES

The purpose of this technical assistance is to provide the required personnel necessary to accomplish the following goals:

A) Prepare a documented survey of private sector participation experiences, opportunities, and constraints of PSP in up to 10 survey cities.
B) Formulate recommendations for increasing private sector participation in urban services at the local government level.
C) Identify locations and the urban services component for pilot demonstration projects.
D) Formulate a series of simple and reliable monitoring indicators for PSP in urban services at the local government level, finalize the baseline data format from up to 10 survey cities, and propose a methodology for periodic updates of the survey data for monitoring purposes.

TASKS

It is envisioned that this will be a 4 month (13 week) survey and analysis to be conducted in up to 10 cities. This tentatively includes Jabotabek (Jakarta, Bogor, Bekasi, Tanggerang, and Serong), Ujung Pandang, Surabaya and surrounding cities (GKS), Ambon, Yogyakarta, Bandung, Medan, Semarang, Pontianak, and Nusa Dua (Bali). The major tasks include the following:

(1) Survey and document current significant areas and extent (e.g. annual gross value of services provided and/or total annual capital investment) of private participation in provisions of urban infrastructures and services. This includes, but is not limited to:

* services contracted by local government agencies and public enterprises (e.g. infrastructure construction ad maintenance, solid waste collection and transport accounting services, etc.);
* concessions granted by government to private sector for development and/or operation of infrastructure and services (bus terminals, transportation, markets, etc.);
* other services provided directly to the consumers (solid waste collection and disposal, sewage collection and disposal, water vendors, etc.);
* urban infrastructures provided by private investments in industrial and housing estates;
* public/private partnership projects which provide substantial urban infrastructures (typically projects where public sector provides land and/or access to land and the private sector invests in commercial developments and supporting infrastructures);
* Partisipasi Masyarakat in provision of urban services and infrastructures.

Any previous significant PSP experiences not currently continuing will also be documented if relevant.

(2) Survey and analysis of the opportunities for privatization of urban services and the existing constraints. This should include recommendations regarding types of laws, regulations guidelines, and information sharing mechanisms which local government authorities and private investors would find most helpful for implementing PSP in urban services.

(3) Define a set of simple and reliable indicators for monitoring the extent of private sector participation. This should be a concise definition of the most appropriate indicators and providing baseline data for the up to 10 cities in the survey. The method for collecting, on an annual basis, the data set required for monitoring should also be documented.

Tasks (1) through (3) should be conducted in two phases, as follows:

Phase I

A four week period to conduct initial detailed surveys and analysis in 3 cities (tentatively seen as Jabotabek, Padang, and Surabaya) to establish the methodology, approach, and specific output of subsequent surveys and analyses. This will be agreed to with USAID/Indonesia and the PURSE Steering Committee.

Phase II

Complete surveys and analyses in the remaining cities.

(4) Formulate specific practical recommendations for increasing PSP in urban services at the local government level for consideration by the Working Group.

(5) Assist in identifying specific pilot/demonstration project opportunities for execution under the PURSE Project.

(6) Disseminate findings/recommendations through reports, and through conducting a one-day seminar. The objective of this seminar, to be held in Jakarta, is to provide a forum for dissemination of key study findings, conclusions, and recommendations to members of the PURSE Project Steering Committee, as well as to selected local government officials. The seminar participants are intended to include approximately 20 central and 10 local government officials. WASH will be responsible for conducting the seminar including developing the agenda, presenting the study results, and making the necessary arrangements for logistical support and reproduction of materials.

PERSONNEL AND LEVEL OF EFFORT

In order to accomplish the goals of the Scope of Work, the following personnel will be required:

- One American expatriate consultant Senior PSP Specialist. This consultant should possess at least 10 years experience in urban policy in developing countries and at least 5 years experience in PSP (commercial and non-commercial) in the provision of urban services, preferably in Indonesia. Previous experience in Indonesia with local government level urban finance/management is desired. Sufficient competence in Bahasa Indonesia is also desirable. This position will require 48 person days of effort.

- One local Indonesian consultant Senior Privatization/Finance Specialist. This consultant should possess at least 10 years of experience in urban finance and management and contracting at central, Tk I and Tk II levels, and 2 years of experience in privatization of public services. Excellent written and spoken English is also required. This position will require 72 person days of effort.

- One local Indonesian consultant Mid-Level Specialist. This consultant should possess at least 5 years of experience in local government systems for urban finance and management, as well as 3 years of experience with accounting at Tk II level and with PC based data base management systems. Competent written and spoken English is also required. This position will require 72 person days of effort.

- WASH Task Manager will facilitate the team planning meeting at the start of the activity, participate in the review meeting, and attend the final seminar. The WASH task manager through these activities, as well as the review of all draft documents before submission to the Mission, will exercise quality control for WASH and provide technical input in terms of WASH's extensive experience of private sector participation activities in Indonesia. The WASH task manager designated for this activity is the Finance and Economics Specialist on the WASH Project. These management and technical activities will require 26 person days of effort.

END PRODUCTS

It is expected that the report produced from this activity (most likely WASH Field Report) will be phased in line with Phase I and II of this activity. The Phase I report will be a Progress Report submitted after completion of the initial surveys and the finalization of the methodologies referenced in Phase I of Tasks 1 - 3. The second draft report will present the initial summary and conclusions and will be submitted after completion of Phase II.

This draft report will present data collected on the following:

1) Types and extent of private sector participation in urban service delivery;
2) Applicable laws, regulations and guidelines for private sector participation cited by local governments surveyed as governing partnerships contracts and concessions with the private sector;
3) Indicators, data sources, and baseline data collected for monitoring the extent of private sector participation in the provision of urban services.

This report should also discuss the methodology, approach, and specific output of subsequent surveys and analysis and provide information on the level of effort expended. A review meeting in Jakarta with the PURSE Technical committee and USAID/Indonesia should be held after the initial progress report, with the decisions resulting from this meeting incorporated in Phase II activities.

The full report will be presented at the seminar referenced under tasks.

SCHEDULE

Team Planning Meeting (Jakarta)	September 28-October 1,1992
Develop survey instruments and field work methods	Mid Oct.
Field Work and Site Visits	October and November
Review Meeting/ Initial Conclusions	Mid December

Draft Final via WASH	end-January, 1993
Submission of Final Report	end- February
Seminar	TBD (March?)
De-Brief at WASH	TBD

APPENDIX C

Persons Interviewed

Appendix C

PERSONS INTERVIEWED

KOTAMADYA SURABAYA

Secretary Bappeda II	Drs. Soegiyanto
President Director Slaughterhouse Kotamadya	Drs. Hudiarto
Financial Director PD Pasar (Regional Government Enterprise for Market Affairs)	Drs. Umar Said
Dinas Terminal	Drs. Kasmiran Susanto
Dinas Kebersihan (Cleansing),Head of Construction & Implementation Section	Drs. Rayas Satya D
Head, Bappeda II	Ir. Chusen Chasbullah
Technical Director PT SIER (Surabaya Industrial Estate Rungkut)	Ir. DB. Asmadi Ir. Budi Santoso
REI (Real Estate Indonesia)	Djabah Soekarno
REI, 4th Chairman	Drs. A.Ch. Samsi,MBA
REI, Promotion Dept.	Ir. Mohd. Rudiansyah
REI, Secretary	Ir. Gatot Prasetyo
REI, Treasurer	J.J. Pangestu
PDAM, President Director (Regional Water Enterprise)	Ir. Hoesodo
PDAM, Head of Research & Development	Ir. Nina Meliana
Dinas Kebersihan	Ir. Indati Ir. Erna

Head, Economic Division	A.Kadir Bobsaid
Regional Economic Divison	Herman Budiarto
Head, Dinas Terminal	Kol.J.B. Budianto
Staff, Dinas Terminal	Drs. Kamiran Susanto
Head, Development Division	Ir. Alisyahbana
Bappeda, Head of Economic Division	Sabur
Bappeda, Head of Social & Cultural Division	Dra. Kusmiati
Bappeda, Head of Statistics & Reporting Division	Ash Gunadi
Bappeda, Head of Research Division	Sasti
REI, Executive Secretary	Eddy Hermanto

KOTAMADYA SEMARANG

Head, Bappeda II	Ir. Sasmito Utomo
Setwilda (Regional Level II Government Secretariat), Staff	Ir. Herdiyanto
Development Division	Ir. Basuki
Legal Section	Mulyati, SH
Dinas Kebersihan (Cleansing)	Sudjatmoko Rusdianto Haryono
Dinas LLAJR (Traffic)	Suradi
UPD Parkir (Parking)	Wasi Daryono
Yadora (Contractor for Parking)	Kadarsin
Dinas Pasar (Market)	Subur Marsudi Drs. Wiyarto
Slaughterhouse, President Director	Drh. Soedibyo

Slaughterhouse, Director	Drs. F.X. Soecipto
Bappeda I Central Java Province	H.M. Anwar Said Ir. Harry Triyogo
PDAM, Technical Director	Ir. Bahrudin Achmad
PDAM, Private Sector Participation Coordinator	Ir. Atiek Shitawati
Chamber of Commerce, Chairman Chamber of Commerce	HRB Didik Soekardi Soemarman P. E.E.W.B. Soemantri Dimyati
BKPMD Central Java, Chairman (Investment Coordination Board)	Ir. Soesmono Martosiswojo,MBA
BKPMD Central Java, Secretary	Sismiyadi, SH
REI, Chairman (Real Estate Association)	Ir. Muhamad Rudiansyah
REI, Board member	Ir. Bambang Kasmato
REI, Vice Secretary	Djoko Slamet Utomo
Head, Terboyo Terminal	Djanu
Bappeda II	Farhan

KOTAMADYA YOGYAKARTA

Bappeda II, Head of Social & Cultural Division	F. Kaswanto
Dinas Peternakan (Livestock)	Budi Warsono
Dinas Pasar (Market)	Parjimin Fawzia
Setwilda, Finance Division	Tuty Wahyuni, B.Sc.
PDAM	Herman Santoso
DKP (Cleansing & Landscaping)	Ir. Hadi Prabowo
Setwilda, Development Division	Soekarto

Dinas PU (Public Works)	Sulistianto H.
DKP (Cleansing & Landscaping)	Sita Ratih
Bappeda II, Staff	Aries Prastiani
Setwilda, Economic Division	Djoko Setiono
Setwilda, Development Division	Drs. Soekarto Ir. Sudarsono
Dispenda (Tax Collection)	Marduin
Dispenda	Sugiyono
PDAM, President Director	Drs. Tridjoko Susanto
PDAM, Head of General Affairs Section	Sugito, SH
PDAM, Head of Planning & Programming Section	Ir. Suroso Danu
PDAM, Head of Transmission & Distribution Section	Widiatmoko, BE
PDAM, Staff	Dra. Yuni Astuti
PDAM, Head of Finance Section	Soedarmadi
PDAM, Technical Director	Ir. Harundono
DKP (Cleansing & Landscaping)	Bambang Ponidi
Dinas Pasar (Market)	Suhartono D.
Head, Dinas Peternakan (Livestock)	Drh. Bambang Sukartono Budi Warsono B.Sc. Surodjo
Kadin (Chamber of Commerce) of Kotamadya Yogyakarta, Chairman	Sofyan Daud
Bappeda II, Secretary	Drs. Koeswanto
Bappeda, Head of Physical & Infrastructure Division	Ir. Soebijanto

Bappeda, Staff member of Physical & Infrastructure Division	Ir. Eko Suryo

KOTAMADYA UJUNG PANDANG

Vice Mayor (Wakil Walikota)	M. Ridwan
Dinas Peternakan (Livestock)	Faisal Rahim
Dinas Perumahan (Housing)	M. Yunus
Dinas PU (Public Works)	M. Tadjuddin Noor
Head, Bappeda II	B. Heryanto
Head, KLH (Environment & Population)	M. Idrus T.
Dinas Pertamanan (Landscaping)	Achmad Bachtiar
Dinas LLAJR (Landscaping)	Halik Amrin
PDAM	Kartia
Dinas Pertamanan (Landscaping)	Rusnadi
Dinas Kebersihan (Cleansing)	Marzuki R Nadjamuddin S
PDAM, Technical Director PDAM, Financial Director	Ir. Hilal Yunus Anwar Sumantri
PDAM, Research & Development	Ir. Kartia
UPTD Pasar Central (Central Market)	M. Aras
Bappeda II, Secretary	Syahruddin
Dinas Tata-Kota (City Planning)	Mansyurdin
Setwilda, Development Program Division,	Hamzah Hasan
REI, Chairman (Real Estate Indonesia Association)	Saldi Mansyur
REI, Vice Chairman I	H. Eddy Satir Hassan
REI, Vice Chairman III	Eric Natsir

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REI, Secretary	Ir. Chaerul Amirullah
REI, Treasurer	Ir. Wijaya Hosen
REI, Licensing & City Planning Section	Ir. Darwis Parenrengi
REI, Funding & Tax Section	Drs. Rudy Dappi
KADIN (Chamber of Commerce), Secretary	Husein Ibrahim
Dinas Kebersihan (Cleansing)	Marsin Sahibu

KOTAMADYA BANDUNG

Bappeda II, Chairman	Enan
Bappeda II, Staff	Surya S.
DLLAJR (Land Transport)	Ruskandar
BPP (Parking)	Darwita
Setwilda, Kesra (People's Welfare)	Ma'sum Bambang R.
Setwilda, Economic Division	H. Hendarsyah
Koppas Induk (Wholesale Market Cooperative)	Toto Supratman
Pasar Induk (Wholesale market) Gedebage	H.Hassansaputro
Dinas Pasar (Market)	Tjutju Nurdin
DKHP/RPH (Veterinary Service/Slaughterhouse)	Mardi Heryanto Helmi Yusuf
Dinas Kesehatan (Health)	dr. H. Dadang K
Dipenda (Tax Collection)	Sanusi Dada Rasoda
Kadinda (Chamber of Commerce)	Darisman Tisnaamadjaja MR. Ismaputra
Kadinda	Ir. Sudradjad, MSc.

PDAM (Water Enterprise)	Ir. Bargus S
PD Kebersihan (Cleansing)	Sudarli Sudartoyo Sumardjito
Bappeda II	Didik Sadikin
Koppas (Wholesale Market Cooperative)	D. Sutrisno
REI, (organisation of real estate developers) Excutive Secretary	J. Marcel Yacoub
PDAM, President Director	Ir. Ibrahim
PDAM, Head of Sewerage Division	Dra. Sumarti H
PDK (Cleansing Enterprise)	Maman S. Ir. Yulianto
Head, Dinas Pasar (Market)	H. Malkan Tohir Nurdin Tohir Moerkana
Head, UPD Terminal	Drs. Eddy Kurniadi
Head, BP Parkir (Parking)	Darwita
Dispenda (Tax Collection)	Drs. Sumiati Adang Mahmud

KOTAMADYA MEDAN

Bappeda II, Head	Sinulingga
PDK (Cleansing)	Nainggolan
Dipenda (Tax Collection)	Amril A.
PDAM, Tirtanadi	Radiati
PT. KIM (Industrial Estate Medan), Director	Adenan
REI North Sumatra & Aceh, Chairman	Elbiner Silitonga
Head, Dinas Pertamanan (Landscaping)	Zainul Arifin

Head, Dinas Pasar (Market)	Tarjan Ginting
Pres.Director, PD Pembangunan Kotamadya Medan	Fachry Mudadalam
Dinas PU (Public Works)	Zainal

APPENDIX D

City Profiles

CITY PROFILE

KOTAMADYA BANDUNG

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1. BACKGROUND

Bandung, capital of the province of West Java, is one of the most densely populated cities in Indonesia. It covers an area of 16,725 ha., and consists of 26 sub-districts (kecamatan) broken down into 135 villages (kelurahan). Located approximately 180 km southeast of Jakarta, Bandung can be reached easily by car or plane. Furthermore, because Bandung is situated in a mountain valley about 770 m above sea level, its annual mean temperature is between 20 and 28 degrees celsius. As a result of these pleasant weather conditions, Bandung has long been known as "the Paris of Java", and is considered an ideal place to live. In 1955, Bandung played host to the Asia-Africa Conference and welcomed heads of state from more than 29 countries.

Of all the many roles played in development by the city of Bandung none is more important than encouraging initiatives in establishing the city as a center of higher education and research; a center of industrial activities (mainly textiles and aircraft manufacture), and as the center of tourism and culture for West Java. In the latest data available (1989) the work force in Bandung was 30% of the total city population. The largest percentage of these workers (40%) were involved in the private and informal sectors, while 28% worked in the trade and service sectors, 27% in the government sector and only about 5% in agriculture. Bandung's main exports come from food and beverage manufacture and packaging, worth about US$36.5 million in 1989. This is followed by textile and garment production and export, with a US$8.3 million share, and finally leather goods with U.S.$2.8 million. Given the nature of businesses involved, and the resultant export potential, the per capita income appears to be sufficiently high, in the neighborhood of Rp. 1.9 million for 1989.

The present population of the city is approximately 1.8 million, with an annual growth rate over the past five years of about 3.8%. The city's rate of economic growth over the same period (1984-1989) was about 7.5% per year. Over the past three years Bandung has received a Regional Revenue and Expenditure Budget (APBD) of Rp. 111 billion. Of the total budget, 80% comes from higher levels of government and UKP, with 13% raised through Regional Own Revenue (PADS), 5% realized through loans and 2% from other sources.

Generally, Bandung experiences difficulties in providing city facilities and utilities, in large part because of the fast-growing and densely-packed city population. Transportation planning is insufficient to ensure that both passengers and commodities can flow smoothly through the city's road systems.

Environmental damage due to increased population and traffic pressures has resulted in decreased quality-of-life for many Bandung residents. To address these problems, many development programs have been formulated and are now being carried out in the city.

These include development of a new water supply system through Bandung Area Water Supply (BAWS II); development of urban facilities and utilities through the Bandung Urban Development Program (BUDP I, II, and III); and a traffic management system being implemented through the Bandung Urban Transportation Program (BUTP).

2. PSP ACTIVITIES OVERVIEW

Generally participation in urban services from the private sector in Bandung is still very limited, particularly when compared with other large cities such as Jakarta or Surabaya (see Surabaya City Profile). PSP activity is limited to the market, public transportation and housing sectors. These activities are usually carried out by the private sector through establishing cooperatives (KUD) or foundations (yayasan), except in the market and housing sectors.

In the market sector, it can be said that Bandung has enough potential to increase cooperation between private sector investors and the city, and devotes considerable effort to this also. This increased cooperation can be seen in the recent completion of the Caringin and Gedebage dry goods markets (pasar grosir), and also, using a different model of inter-sectoral cooperation, the upgrading and rehabilitation of traditional markets. The cooperation generally takes the form of a BOT system, or a joint cooperation agreement signed between Pemda and the investor.

Pemda Bandung is still trying to formulate a detailed conceptual plan to increase private sector participation in urban services, including what particular form or type of business activities would be best suited to this future cooperation. Many plans for joint cooperation are already being considered by Pemda, such as development of water supply installations (using artesian wells); management of solid waste management in the LPA (Permanent Disposal Site); and construction and management of passenger terminals. One of the reasons the private sector is not yet intensively involved in these activities is that Pemda itself is unclear on the regulations and technical/operational guidelines governing efforts to improve cooperation with the private sector. In addition, Pemda is still waiting for the right moment, or optimum opportunity, to bring in the private sector. For their part, PDAM (Regional Government Water Enterprise) plans to conduct a comparative study between Bandung and other cities which have experience in PEMDA-private sector cooperation, such as Jakarta, Surabaya and Medan.

The private sector in Bandung has received the definite impression that Pemda Bandung is not receptive to opportunities in joint commercial cooperation. In addition, any forum for discussion or communication between Pemda and the private sector is felt to be still very limited.

On the other hand, as described above, the market sector offers an alternative with good prospects for private sector activities. Investment in construction of the dry goods markets at Caringin and Gedebage by the private sector has no parallel in other Indonesian cities. Although many difficulties are being experienced in the on-going activities of these two markets, Pemda Bandung can still serve as a model for other cities in the country in development of such markets including the private sector.

Once again, as in other major cities, it can be seen that Pemda regulations themselves, as well as lack of consistent enforcement are the main constraints to increasing and continuing private sector participation. Even on-going cooperation between Pemda and the private sector is being slowed by these regulations and their interpretation.

3. SECTOR ANALYSIS

3.1 Water Supply

3.1.1 Experience

There are no private sector inputs in water supply in Bandung. All operational activity is carried out by the Regional Water Enterprise (PDAM Tirta Dharma).

At the end of 1991, it was estimated that 75% of Bandung residents were receiving water supply services. This was based on calculating the total water user fees billed against the entire city population. However if this is recalculated using only those customers receiving piped water supply, the new total would be around 55% of inhabitants of the Greater Bandung Region being serviced by PDAM. This means that most of the existing water supply network is concentrated in Old Bandung City (about 8,100 ha., almost 100% of which is serviced), with an additional 8,000 ha. encompassing the Greater Bandung Region not as yet being supplied with piped water services.

The high percentage of leakage through the piped water system results in a 35-40% water loss, that takes the form of "Unaccounted Water Losses" (UAW). Other leaks may be blamed on the administration.

From the point of view of existing water supply capacity, Bandung has made use of all available resources, leaving no immediate potential for future expansion using the present water supply system.

Increased capacity is possible if the water resource potential of the Sentosa Irrigation Dam (south of Bandung) were to be realized. Studies concerning the feasibility of use of the Sentosa Dam were carried out by DHV and IWACO of the Netherlands. The only remaining problem concerns who will develop these water resources in the future, whether government alone, or the private sector in cooperation with the government.

3.1.2 Opportunities

For the time being, PDAM Tirta Dharma has adopted a "wait and see" attitude, and will not try to take the initiative in improving cooperation with the private sector until all advantages and disadvantages and possible benefits to such union have been clearly established. As a first step, PDAM Tirta Dharma has made a plan for a comparison study with PDAM Surabaya (in bill collection) and PAM Jakarta (in meter reading) to seek information on the experiences of other PDAM's currently working with the private sector.

In addition to this, PDAM Tirta Dharma sees possibilities in cooperation between private investors and PDAM to develop the water resources at the Sentosa Dam. Efforts by PDAM Tirta Dharma to date have been limited to negotiations with PLN (The State Electricity Enterprise) and the Directorate of Irrigation under the Directorate General of Water Resources

concerning the procedures for determining advantages or disadvantages to development of the Sentosa Dam.

As described above, water supply services reach almost the total population of Bandung city. However, due to the rapid expansion of the city area PDAM is having difficulties in meeting the demand of the growing number of consumers in the Greater Bandung Region. This situation could be turned into a positive experience, however, by providing the basis for improved cooperation between PDAM and the private sector.

3.1.3 Constraints

Experiences to date with private sector efforts in various parts of Indonesia are still viewed as not meeting minimum quality standards (as set by the government). Therefore, although there is enough potential for development in PDAM/private sector cooperation, PDAM remains doubtful concerning the risk factors which may emerge because of this cooperation.

Although some aspects concerning the prudence of cooperation with the third (private) sector have been covered by government regulations or Ministerial guidelines, a major constraint lies in a lack of manuals and technical specifications or guidelines detailing clearly government requirements in the areas of tariffs definition, material supply and quality control, etc. It would be a positive step for the Central Government to establish Material Supply Standards Guidelines for use throughout Indonesia, especially directed to regulating investment cooperation with investors from the private sector.

3.2 Wastewater and Sanitation

3.2.1 Experience

As with the water supply sector, wastewater and sanitation does not include private sector participation in their activities. This sector is handled by a division of PDAM Tirta Dharma, through their wastewater division. Human waste and wastewater disposal in Bandung is handled through an underground piped system combined with the use of septic tanks. These aqueducts have a combined length of 14 km., with most of the system constructed by the Dutch government. The system serves several functions, firstly in sanitation for human waste disposal, but also for rainwater and other wastewater disposal. The activities of BUDP I have already played a major role in developing this sector, with the construction of a piped system 176 km. long, including 19,000 control valves (bak) to monitor water flow and provide connections to individual households or industry. This has brought sanitation and wastewater service to over 400,000 Bandung inhabitants. At present, the city sewage system is served by treatment plants located in the eastern part of the city, and which can only serve the eastern, middle and southern areas of Bandung.

There are obstacles to developing this piped system, however, in that available land in Bandung is limited, and the city very densely populated and congested, which would require Pemda to pay prohibitively high expropriation fees to present land-owners and developers.

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There is an effort on the part of the government to construct a water treatment plan in the area of Moh. Toha, which would be used to treat wastewater from industries. As presently planned, this treatment facility will be managed in conjunction with a cooperative, which will be appointed. In addition, city sewage system facilities are being built on an 85 ha. area located in Desa Bojongsoang of the Buah Batu sub-district, financed through ADB loans, the GOI and PDAM. When construction of this new treatment plant is completed, sanitation systems can be extended to serve the northern region of the city.

User's fees for wastewater and sanitation services are included in the water user's fee monthly bill, and these are paid at the same time. In these user fees, the government has included fees for sanitation and wastewater disposal even to those households which have no piped disposal system. The government considers that these households not yet connected to the central system are still producing wastewater, and disposal of this wastewater must still be handled by the local government. In this case the fee is termed an "Environmental Charge". Through use of this billing system it can be said that collection efficiency of user's fees for wastewater and sanitation is quite high.

Plans for extending this wastewater system include requiring every building permit application to be accompanied by a recommendation outlining the wastewater and sanitation system that must be installed. Whenever possible installation of this system must be connected to the existing piped system. If this is not possible, the developer must present a detailed design for a septic tank system which will be constructed as part of the development. In finalizing these proposed new developments, consultation fees and costs for legalizing the detailed designs for the project will be charged at rates set by Pemda.

Septic tank desludging is managed by Pemda Bandung at a charge of Rp. 5,000/m3. Pemda owns three disposal trucks and is able to serve about 20 houses a day, and for the time being serves only the older regions of Bandung city (about 60% of Bandung City, or 75% of households including the expansion of the Greater Bandung Region).

3.2.2 Opportunities and Constraints

With all its present efforts and endeavors, the Wastewater Division of PDAM Tirta Dharma has not yet given consideration to including private companies commercially in this sector. They are still capable of managing the upgrading of facilities and services, and also of increasing income in this sector on their own. If future participation with the private sector were to be considered, PDAM would prefer to involve a cooperative appointed by their agency.

Obviously Pemda is still capable of providing wastewater services as required by the inhabitants of Bandung. From the perspective of investment, however, some constraints can be seen. Pemda has invested Rp. 81 billion in its wastewater and sanitation projects, and has not yet reached 'cost recovery' (not even the Break Even Point for operation and maintenance). The high costs involved present an obstacle to private sector initiative, but also present an opportunity to develop a usable format to increase private sector participation in provision of these services.

3.3 Solid Waste Management

3.3.1 Experience

As with the other two sectors described above, the solid waste management sector does not yet contain any involvement from the private sector, except in cooperating with KUD to collect user fees for garbage removal. This service will be extended to all households in the Greater Bandung Region (including the expanded areas). This cooperation takes the form of KUD acting as the 'payment point' in the areas serviced by KUD.

Garbage removal fees (which are paid together with the electricity bill) are received from 93% of all clients, with 7% left uncollected. This is inadequate when compared to fee collection for water supply. This is partially due to the general public's lack of awareness of the KUD 'payment point' system. Each household is billed Rp. 1,000 per month for this service, with no differentiation made between domestic or non-domestic customers. The regional legislation governing these tariffs was issued in 1986 and is now being revised to include a 'cross-subsidy' system clearly separating the two groups: large non-domestic customers (hotels, offices, shopping centers), whose bills will be collected separately, will be charged using a flat rate, regardless of how much garbage is produced. For example, PD Kebersihan collects about Rp. 4 million per month from the aircraft manufacturer PT IPTN (Nurtanio) regardless of how much organic waste produced (non-organic waste is disposed of by the company itself). The user's fees, whether from domestic or non-domestic customers, include transportation of garbage from the Temporary Disposal Site to the Permanent Disposal Site (LPS to LPA), involving about 6,700 m^3/day from throughout Bandung. Garbage collection from individual households and transportation to the nearest LPS is organized by the RT/RW or the LKMD. The monthly fee for this service varies depending on the capability of the executing agency. Through this system, the public is paying twice for solid waste removal.

At present Bandung owns two LPAs with sanitary landfills located in Leuwigaja and Pasir Himput (near Sukamiskin) and managed by PD Kebersihan itself. Street sweeping is still 100% managed by PD Kebersihan, utilizing 4 shifts (i.e. 05.00-11.00, 11.00-16.00, 16.00-21.00 and 21.00-5.00).

Under direction of PD Kebersihan, all daily laborers engaged in street sweeping automatically became employees of PD Kebersihan. On the one hand, this is very positive, because as a government agency not solely concerned with profit PD Kebersihan also has a duty to provide secure employment opportunities. However, it must also be considered that these employees became an additional burden on PD Kebersihan's operational expenses, and their employment runs contrary to its goal of making its operations profitable.

To summarize the situation and capacity for solid waste removal as outlined above, in Bandung city services reach almost 100% of households. The exception is in the Greater Bandung Region which is still relatively sparsely populated and receives fewer services. At present PD Kebersihan has 1,876 employees, which provides a service ratio of about 2.7 employees per 1,000 inhabitants. There are approximately 2,700 employees from the RT/RW or LKMD, so in total labor to population, it may be assumed that 82% of the city's inhabitants

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receive garbage removal services. Solid waste removal from city parks and open fields is handled by Dinas Pertamanan (Parks and Recreation) who brings this refuse directly to the LPA.

3.3.2 Opportunities and Constraints

Recycling, as is found in other cities in Indonesia, is handled informally by scavengers. LPA management (recycling including comporting) in the formal sector does not yet involve private sector participation in Bandung. On a small scale, however, Pemda is already involved in the composting process, with the major constraint being to locate customers for the compost itself. One regular customer is Dinas Pertamanan which buys compost from PD Kebersihan to maintain city parks.

As outlined above, PD Kebersihan's capable management, combined with participation from the general public, is sufficient to handle waste disposal without involvement from the private sector. Obstacles to PD Kebersihan's ability to extend these services further lie in a limited budget. At present, PD Kebersihan receives Rp. 3.6 billion per year, but in order to cover operation and maintenance, and to service its debt, the department must be subsidized a further Rp. 400 million by the central government. The first loan of about Rp. 4.5 billion is already partially repaid (as it came in the form of a DINAS or service loan from the government), and the second loan of Rp. 15 billion advanced through BUDP II is still in its "grace period". PD Kebersihan's expenses each year are allocated as follows: 50% for salaries and benefits, 18-20% for petrol, 12% for equipment maintenance and about 20% on miscellaneous (including debt servicing).

In conclusion, PD Kebersihan has no present or future plans to involve the private sector in solid waste removal. A proposal was submitted by a private sector company but involved plans to handle a particular service under contract, not through investment. PD Kebersihan would prefer private sector participation in LPA (Permanent Disposal Site) management, taking the form of investment cooperation (fully or partly BOT/Joint Venture).

3.4 Integrated Area Development

3.4.1 Experience

In Bandung the most prominent activity in this sector is the development of housing estates by private developers. Further integrated area development is limited to the areas of aircraft manufacture in the Pajajaran area, leather factories in Cibaduyut and textile industries in some areas.

REI (real estate association) activities in West Java cover all development in this region up to the BOTABEK (Bogor, Tangerang, Bekasi) triangle, with most of their 250 members domiciled in Jakarta. In the city of Bandung there are about 40 developers, working over an area of approximately 800 ha. To date, only one developer has handed the completed real estate development over to Pemda for maintenance and management, and that is Sumber Sari Indah

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housing estate (PT Putraco, developer). The others are still in a condition termed "status quo", which means the developer has completed all construction of housing and facilities and has passed the 3 month maintenance inspection, but Pemda has not yet received transfer of responsibility for these projects. In these instances, the home owner bears the cost of maintenance and infrastructure management, with the developer providing temporary assistance.

Infrastructure for facilities such as water supply is also provided by the occupants, either through shallow wells or vendor-delivered water supply. No housing estates in Bandung provide their house-owners with a water supply system.

Solid waste disposal is usually managed by these occupants themselves through the PT/RW or via a cooperative. This form of participation by the general public in garbage removal usually involves collecting garbage from each household and transporting it to the nearest LPS, with PD Kebersihan in turn transporting it to the LPA. PD Kebersihan does not experience difficulties in providing this service to all regions of Bandung.

3.4.2 Opportunities and Constraints

Pemda has made no effort to approach the real estate developers (in this case through REI), or to develop a dialogue with this group. No policy concerning provision of facilities in or to the housing developments (such as water supply systems, sanitation and wastewater, solid waste disposal or road maintenance) has as yet been clarified. It can be said that although development of the housing sector is a national policy priority and commitment, at present all initiatives in this sector are taken by the private sector.
The greatest constraint to the real estate sector is in the lack of clear policy involving transfer of maintenance responsibility for the housing estate to Pemda from the developer following completion of all development and construction.

There are considerable differences between the abilities of the private developer and Pemda in managing the housing developments. This results in delays of supplies and maintenance of services provided to the residents once transfer has occurred.

The problem outlined above is seen in almost every region of the country: there is no clear directive from Pemda on managing the operation and maintenance of housing developments once they are completed and transferred by the developer. From the economic standpoint of the developer, this situation makes their 'post-development' involvement unattractive.

3.5 Commercial Facilities

3.5.1 Markets

Experience

The are 66 markets in the city of Bandung (including the 2 central markets, Caringin and Gedebage). There are four different types of markets: Regional Market (APBD), Inpres Market (established through presidential decree), Multi-purpose Market (normally managed through a BOT agreement, with the land owned by Pemda and the facilities owned and operated by the investor for a fixed period of time). The final type of market is owned wholly by the developer under a 30-year management agreement with Pemda (the two central markets are managed in this way). Multi-purpose markets such as Pasar Simpang and Pasar Baru (which were constructed by PT Unico) have been in operation since 1973. All investment initiatives are screened and feasibility determined by the Regional Development Planning Agency, Bappeda, (as in Yogyakarta) and then submitted to the Walikota, or mayor, for his approval. Efforts by Dinas Pasar to anticipate and combat competition from the private sector are still limited to upgrading buildings and improvements for vendors through KOPPAS (Market Vendors Cooperative) and RWP (Rukun Warga Pedagang).

In the case of the Gedebage central market, development activities were planned and supervised by Pemda, and then turned over to private investors who were interested in participating. Gedebage central market (pasar induk) was originally located in Kabupaten Bandung, but when the boundaries of Bandung city were extended it was also included in the municipal area. This resulted in Bandung having two central markets (Caringin market was already within city limits).

Caringin market was established by the Bandung Mayor's office in 1988, and opened in 1991. Operation agreements cover a 30-year period, and the market has 1,300 kiosk units. Caringin central market functions as a distribution center for primary goods and all required facilities. After the 30-year management contract is completed, it will be operated by Pemda, with the exception of ownership of the land and buildings. These are purchased by the individual vendors/traders on long-term credit, payable over 20 years to the investor (developer).

It can be seen that Pemda has assisted in increasing private sector participation in market development, particularly in the two central markets. However, this assistance does not extend itself to sharing in the risks of the investor, and is limited to support for market activities themselves.

Opportunities

There are generally many investors interested in the market sector. Most cooperation between Pemda and such investors utilizes the BOT system for new market construction or total rehabilitation of old buildings.

It can be seen from these cooperation opportunities that the aspect that would derive most benefit from Pemda/private sector union would be that of management and administration of the markets, making them more modern and efficient. However, since the official status of the markets still places them under the control of Dinas Pasar, these development opportunities for cooperation will not change drastically in the near future.

Constraints

In practice, the activities of Caringin and Gedebage central markets are quite unique in that they utilize 100% participation from the private sector in actual central market activities in the areas of provision of all basic goods. However the cooperation concept and previous experience of Pemda is limited to "sharing" BOT ("partial BOT"), the system used in rehabilitation of traditional markets, and not "full BOT" or"BOO" as in the case of the Central Markets. Therefore, in order to improve management of these two markets either Pemda or the investor face some basic problems, such as division and distribution of the functions of both markets.

Caringin central market was created from the combined Ciroyom, Jatayu, and Andir markets, among others, and it can be said that this merger was successful. However, following the city boundary expansion, Caringin central market was joined by Gedebage central market. With both markets having the same functions (such as vegetable distribution) this creates heavy competition between the two, and there is a feeling that actually one central market carrying out these specific functions is enough.

Initially Pemda provided little assistance in maintaining investor interest in development of the two markets, and made no firm agreement with the investor regarding management. Pemda later contributed to improved cooperation by passing SK Walikota regulation 802/92 which stipulated that all dry goods activities over a 10 km. radius would be under control of the nearest central market. In addition, if the investor ends in bankruptcy, Pemda will take over all responsibility for continuation of business services. The investor may not change the status or function of the market, because of government regulations and the existing agreement.

Other problems are that the income potential and operational cost have placed the investment at risk. The private investor owns the land, but the rate of return on the investment is slow. A worst-case scenario is that if the investor encounters difficulties they may sell the land. In this case it would be difficult to ascertain who would be responsible for the management and continued business activities of the Caringin and Gedebage central markets, and also puts in question the livelihood of the market vendors.

3.5.2 Other Facilities

Other facilities in the commercial sector with development potential are passenger terminals and on-street parking facilities. Below is a brief overview of these facilities.

Passenger Terminals

Terminal facilities are still managed by one unit working under Dispenda, and they control the UPTD Terminal. A survey carried out in 1987, determined that the management style used by UPTD was no longer sufficiently competent or applicable to present day needs and as a result of these conclusions it was planned to form a new "Dinas Terminal" to handle these activities.

The city of Bandung has two intercity bus terminals at Cicaheum and Moh Toha. There are also two city terminals, five sub-terminals and eight shelters. The total income per year from passenger terminals is about Rp. 1.5 billion, including a 'user's fee' of Rp. 50 per person, which contributed 30% to the total income (1992 figures).

Compared to the total yearly income in 1987 of Rp. 300 million, the 500% increase over five years is proof of this sector's potential. The design capacity of Moh Toha intercity terminal was for only 40 buses, or 120 vehicles in and out of the terminal daily. The volume of vehicles using this terminal at present is approximately 400 per day.

Operation and maintenance costs and salaries and benefits each account for about half of the annual budget. These two components use up only 25% of the total income, or about Rp. 350 million/year. The rest of the income, about Rp. 1.2 billion is sent to Pemda and part of it used to repay loans.

Some problems were identified in terminal facility development, for instance in budget limitations. A new intercity terminal is presently being constructed in Leuwipanjang (for westbound transport) at a cost of Rp. 5 billion from the government and using a further loan of Rp. 4 billion. This terminal will have a capacity of 200 vehicles per day, or 600 vehicles in and out. Taking into account the income potential as seen above, the development of the new terminal in Leuwipanjang becomes important for terminal sector income in the future. However, according to Pemda, possible opportunities for the private sector in the Leuwipanjang development are very small (this is because the development budget is fixed by Pemda itself). The only possibilities for future opportunity is if there are plans to develop another terminal.

Upgrading UPTD Terminal to status as an agency at the same level as Dinas has been considered, together with the development of an integrated terminal operation concept, including facilities such as lodging for drivers, car wash, restaurants/supermarkets, advertising, etc. To this end, regulations concerning terminal operation must be drafted, with a view to either regulating terminal development, or controlling the budget alternatives (utilizing private investor involvement or cooperation). Cooperation from the private sector is anticipated in terminal operation, in a spirit of true cooperation from both sides and not only in development investment or management contracts to carry out specific services.

Parking

Parking originally came under the jurisdiction of UPTD Terminal, however since April, 1986 activities under this sector have been executed by Badan Pengelola Parkir (BPP). This has resulted in a considerable rise in income from this sector (Rp. 2.55 billion in 1992/93 as compared to Rp. 2 billion in 1991/92). These figures only include income derived from on-street parking, and account for just half of the total parking fees collected, mainly from parking on major public roads (Rp. 300/car). The additional parking facilities are built by the private sector with Pemda receiving 25% of all income earned.

Bandung has a multi-story parking garage constructed in the Banceuy area by the private sector (KOPANTI, which is a cooperative), but it is not well managed. Even when managed by Yayasan Purnayasa fees collected only amounted to around Rp. 200 million. There are also parking lots located in Cibadak, Alun-alun and Jalan Tamin (these are all close to the city center).

Bandung's proposed urban plans include construction of parking facilities at 6 sub-centers. In addition, Perda (Peraturan Daerah, or Regional Legislation) 3/1985 states that all private buildings must provide sufficient parking facilities (these may not include on-street parking). However, to date Pemda has not concentrated on private sector involvement, either in provision of facilities or parking management. All energies at present are directed at improving BP Perparkiran's ability to derive maximum benefit from existing facilities.

BP Parkir's operating budget is about 35% of the total income received each year and in addition they cover the cost of all activities. Investment repayment is handled by Pemda Bandung. Management of advertising facilities is done by Dispenda, which includes all advertising located in parking or terminal facilities. Because of this, the income potential which could come from advertising has not yet been adequately explored.

4. SUMMARY AND CONCLUSIONS

4.1 Summary

A detailed summary of private sector participation in urban services in Bandung may be found under each sector heading. As regards water supply, until now there have been no clear guidelines as to what shape private sector involvement should take, and there are no plans to develop this cooperation in the near future.

4.2 Conclusions

In general, private sector activities in Bandung are relatively limited, mainly to the water supply, solid waste management and wastewater and sanitation sectors. The scope for exploring the potential of developing private sector opportunities in the future is not clear, for several reasons. Firstly, the local agencies (PDAM and PD Kebersihan Kota) are still capable of managing the existing demand for services, and secondly, if there is to be cooperation with

a third party, Pemda Bandung would prefer to involve a cooperative rather than a purely commercial endeavor.

Of the other sectors described, the most private sector investment activity in Bandung is in markets. The main obstacle to increased investment from the private sector is the lack of guidance and clear regulations detailing what form this cooperation activity should take (in Caringin and Gedebage central markets, and other city markets, for instance). This constraint has already caused problems in the market sector, and resulted in decreased activity in these privately-operated markets.

PSP FORM SUMMARY

SECTOR : SOLID WASTE MANAGEMENT
SUB SECTOR :
CITY : BANDUNG

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO						
o. BOT						
o. JVC		o				
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT	■	■			■	

Notes :

1 = Recycling Process/Treatment
2 = Composting Installation
3 = Collection/Transportation
4 = Street Sweeping
5 = Bill Collection
6 = Landscaping/Gardening

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : WASTE WATER/HUMAN WASTE
SUB SECTOR :
CITY : BANDUNG

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO						
o. BOT						
o. JVC	o					
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Off-site Treatment and/or Main Pipe System
2 = On-site Treatment
3 = Human Waste Disposal Truck
4 =
5 =
6 =

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : SINGLE FUCTION COMMERCIAL
SUB SECTOR : MARKET
CITY : BANDUNG

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO						
o. BOT		■				
o. JVC	■					
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Rehabilitation/Up-grading Existing Building
2 = New Building Construction
3 = Management and Computerization

■ = Present
o = Possible

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CITY PROFILE

KOTAMADYA PONTIANAK

TABLE OF CONTENTS

1. BACKGROUND

The city of Pontianak is the capital of the province of West Kalimantan. It is known as the "City on the Equator", and has a total area of 10,782 ha. This area is divided into 4 sub-districts and 22 villages. There are plans to expand existing Pontianak city area by encompassing a part of Menpawa regency (Kabupaten Menpawa). The population of Pontianak in 1990 was approximately 400,000 with an annual growth rate of 2.71% per year. Pontianak is advantageously situated close to the border between Indonesia and Sarawak, Malaysia, and this has considerable impact on the economic activity of the region. In addition, Pontianak is well-linked to other parts of Indonesia through Supadio International Airport, located within the city area.

Pontianak's dynamic economic performance is reflected in the changing professions of the city's people. The percentage of population engaged in agricultural activities decreased drastically over the past two decades, from 20% in 1971 to only 5% by the end of the 1980's. This work force reappeared predominantly in the trade and service sector, which increased from 20% to 38% overall in the same period. Per capita income also showed a sharp change between 1983 and 1989, from Rp 600,000 to Rp 940,000, or 8% per year.

The city's active economy and potential for growth is also seen in sources of regional budgetary revenue. The city's Regional Own Income (PADS) accounted for 59% of the total Kotamadya level Regional Budget (APBD II) in 1990/91, a total of Rp 13.36 billion. The Regional Tax and Regional Service Fees components alone contributed 36% and 18% respectively to the total Regional Own Revenue for this period.

The major constraint to development for Pontianak lies in the city's morphological conditions, which leave it vulnerable to heavy sedimentation and sediment shifting. These conditions occur because of Pontianak's low-lying position, and also due to the strong tides of the Kapuas River, which runs through the city. An additional constraint is the concentration of industry on the banks of the Kapuas, creating health and environmental hazards due to improper disposal of industrial waste.

2. PSP ACTIVITIES OVERVIEW

Some of the activities involving the private sector are the management of the Kapuas Indah market, done by PD Kapuas Indah in cooperation with the private sector, and PT Penta Graha Mustika (PT PGM) has a five-year contract to manage the swine slaughterhouse in Pontianak. There is public sector participation in solid waste disposal, as seen, for example, around Jl. Karimata where the residents themselves manage garbage disposal through the LKMD (Village Development Institution).

There is at present little coordination in housing activities, due to the absence of a Pontianak REI (real estate association). However, there are 16 developers who construct houses and shop-houses. There are no designated areas for new housing developments or estates in Pontianak, so residential housing and shop-houses are still spread through all city areas.

Some sectors which have potential for increased private sector input are in garbage removal (street sweeping) and transportation of solid waste; industry; public transportation; housing; slaughterhouses; warehouse/storage facilities. The present constraints, particularly in warehouse and industry development, include a lack of available land (resulting in prohibitively high prices). What land is available is used primarily for new housing. Other problems lie in the marshy nature of land in the Pontianak area, and insufficient support infrastructure for necessary services. For example, PDAM (Regional Water Enterprise) capacity is still limited.

These conditions have hampered private sector participation, although such participation has already been anticipated in the city's Spatial Master Plan (RTRK). On the other hand, the city's planners have not yet been able to collect sufficient data to tabulate and quantitatively forecast actual market potential in warehouse and industry development planning. The local government (PEMDA) rather simplistically assumes development potential for the city is considerable due to its access to good harbor facilities and strategic location.

3. SECTOR ANALYSIS

3.1 Water Supply

3.1.1 Experience

A total of 19,000 houses, approximately 38% of Pontianak city area, are served by PDAM Kodya Pontianak. PDAM plans to expand services by increasing production (presently 550 liters/ second) and to decrease incidence of leakage to 30% by 1995. It is hoped that these initiatives will result in 78% of city inhabitants served with water supply through a piped network, either by individual house connection or with public taps.

In general there is no cooperation between the private sector and Pemda in water supply. There is some cooperation between PDAM and two banks (BPD and BTN) in water bill collection. These banks provide a mobile banking unit to collect fees at designated "payment points", making it easy for clients to pay their water bills.

In addition, one other activity involving third party participation is that in which PDAM permits water vendors to buy water from public hydrants, then sell it to people who are not served by PDAM's piped water supply. This service is very important to inhabitants of un-serviced areas, particularly in the dry season.

There is one instance where a developer, PT Desima, has connected his housing development to the PDAM water supply system by constructing a small tertiary piped network. This tertiary network is only meant to serve public facilities located within the housing estate, however, and not to provide water through connections to private houses. Kadinda reported they had once been approached by a developer who wanted permission to install a water treatment facility and piped water supply system to pump and treat water from the Kapuas river. Since the concept was beyond the realm of possibility for Pemda, it was not considered viable, nor was it followed up.

3.1.2 Opportunities and Constraints

To meet existing demands, opportunities for private sector participation in this sector include construction of a dam on the Landak river to divert water for use in Pontianak, and expansion of the tertiary piped water supply network and connections to houses in new housing areas.

These opportunities must be studied in more detail, however, because the size of investment needed is very large, and it is as yet unclear whether there are investors interested in pursuing these projects. The other constraint to expansion is in the present water user's fee rate, which is lower than that of other comparable cities (presently Rp 150/m^3).

3.2 Wastewater and Sanitation

3.2.1 Experience

There is as yet no private investment initiative in this sector in Pontianak. At present all wastewater and sanitation services are provided by Pemda, which operates 1 desludging truck with a capacity of 1,800 liters. This serves individual households at a rate of Rp 25,000 per desludging.

A constraint in this sector is seen in the absence of an LPA (Permanent Disposal Site) for this waste. All wastewater and human waste handled by the desludging truck is currently being dumped with the city's other solid waste at the city's only LPA. This reduces the efficiency of sanitation services to the city, since these services must still be seasonally controlled.

Pemda plans to develop an LPA for wastewater in the Nipah Kuning area to handle more effectively all waste which needs disposal from this sector.

3.2.2 Opportunities and Constraints

At one time there was interest from the private sector in operating a desludging truck service, however this initiative failed when it became clear Pemda could not provide a suitable and separate disposal site for the waste. In general, however, there have been no opportunities to date that would facilitate private sector involvement in this sector.

3.3 Solid Waste Management

3.3.1 Experience

There has not yet been any effort made on involving or cooperating with the private sector in solid waste management. The geographical location of low-lying Pontianak, however, combined with its morphological characteristics and frequent strong tidal movements combine to create difficulties for PD Kebersihan in carrying out its services. These factors cause

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Pontianak's primarily organic (vegetal and animal) garbage to decay rapidly. These factors also put considerable constraints in the path of private sector initiative in this sector.

DKK's (Urban Cleaning Service) 1991/92 budget was only Rp 550 million (including services to the city's parks). Solid waste production is about 1,320 m^3/day (150 m^3 from the markets). DKK can only transport some 70% of all garbage produced on a daily basis, and mode of transport depends on type of waste and location. In addition, the low tariff set at between Rp 650 and Rp 1,300/m^3 results in operating costs which are considerably higher than revenue.

Except in the case of street sweeping, which is handled solely by DKK, the public sector assists in solid waste management through the LKMD or RT/RW (local village government) in each area. Householders bring their garbage to the nearest LPS (Temporary Disposal Site) and this is brought to the LPA by DKK.

3.3.2 Opportunities

The scope and volume of activities in solid waste management for Pontianak are still small, but the city already has a plan for involving the private sector in this area. Some thought has been given to more public participation in garbage collection through the LKMD, transportation of garbage from the LPS to the LPA, and a method of fee collection combining the garbage bill with the electricity bill.

3.3.3 Constraints

There are two main obstacles to involving the private sector in solid waste management. The first is that such cooperation is a new alternative for Pemda, and as such it is unlikely to be implemented in the near future. The second constraint is that due to the nature of the waste created by Pontianak city, operational costs and equipment requirements for its disposal are likely to be high. The volume of organic waste produced each day is greater than inorganic waste, and due to the morphology of the city this garbage remains mainly wet and decayed. Special corrosion-resistant equipment is needed to handle this waste.

3.4 Integrated Area Development

3.4.1 Experience

There has been one example of cooperation with a private developer in the housing sector, involving 16 ha. in the Waru area. This area was formerly a state-owned housing estate, but the land was released for private sector development by Pemda. Pemda granted permission for this development in principle, but emphasized that first priority must be given to selling the new housing to the former occupants upon completion.

Following this, the Martapura and Barito areas (totalling 38 ha.) were identified for development by a private investor for use as a commercial sector area (as detailed in the city's planning). This developer, PT Kita Maju Mandiri, obtained land ownership certificates directly from individuals owning the property, and following this proceeded to begin development on 18 ha., at a cost of approximately Rp 4 billion. Problems with this development come from within the developer's company itself.

In the activities described above, Pemda only played a role in granting zoning and construction permits, not in any cooperation agreements with investors.

3.4.2 Opportunities

In addition to the on-going city renewal developments in Tanjung Pura, Barito and Martapura, there is a plan to improve slum areas, totalling 336 ha. In principle, this slum clearance program will follow the "Land Consolidation (LC)" format. This program offers opportunities to the private sector using the LC concept. In preparation for implementation, local legislation (Perda) has already been prepared specifying "Building Code" and the LC format, with a view to encouraging private sector initiative in this project.

3.4.3 Constraints

Some constraints felt both by the private sector and by Pemda lie in Pemda's failure to provide clear technical planning and implementation guidelines (through Perda) concerning zoning regulations in Pontianak. The division between areas to be used for real estate or commercial activities is unclear, and existing areas of the city often combine the two activities in a very confusing way. Hopefully, by issuing the necessary guidelines, Pemda can guide and control development of multi-store industrial and office buildings which would be built by the private sector.

Considering the present rate of industrial activity in Pontianak, the prospects for development of the warehouse sector are quite good. Limitations to this development, however, lie in Pemda's failure to date to encourage private sector initiative in this area, and also location of such facilities under Pemda's present city planning. The industrial district of Pontianak is located on the banks of the Kapuas River, and following national environmental legislation this policy would have to be reviewed.

Pemda Pontianak has called upon private developers to build RSS (low-cost housing), in particular for junior rank civil servants. However, without assistance from Pemda in expropriating land and obtaining land title certificates private investors have calculated the price per unit completed would be too high for the civil servant group targeted.

3.5 Commercial Facilities

3.5.1 Markets

Experience

Management of markets in Pontianak is unique in the country, in that it involves both a Dinas Pasar and a PD Pasar. PD Pasar was formed in 1978 to meet bank requirements for Pemda to receive loans for supermarket development. PD Pasar only manages Pasar Kapuas Indah, which is owned by Pemda and was developed through the above-mentioned bank loans, which have since been repaid. As a result of managing only this one market, PD Pasar's income is only about Rp 90 million per year (with operating costs of about Rp 50 million).

Dinas Pasar, on the other hand, previously came under Dispenda (Regional Revenue Area) and was established as a separate agency through Perda 6/1979. Its annual revenue is about Rp 223 million (for 1992) which is considered sufficient to cover operating costs after deductions by Pemda for regional government income. Dinas Pasar also organizes and encourages market vendors to maintain and participate in building development investment and market management.

PD Pasar operates completely separately from Dinas Pasar, and there is no coordination between the two agencies. Since 1990 it has been suggested to put PD Pasar in control of all public transportation activities (transportation and maintenance garages).

There are 40 markets throughout Pontianak, including 5 INPRES markets, 15 non-INPRES markets, and 24 privately-owned markets (these are defined as shop-house units, which are freely managed by the individual trader or vendor, and are not required to pay fees to Dinas Pasar). Renovation and upgrading of INPRES markets, managed by Dinas Pasar, is done with funds from APBD II (Regional Budget for Level II). For renovation and construction and management of non-INPRES markets (those at Pasar Dunia Baru, Pasar Puring and Pasar Mawar/Sentral) Dinas Pasar has involved the private sector through using the BOT system and signing management agreements/contracts for 20 years. To date there is no central, or dry goods market in Pontianak.

Opportunities

In the near future, it is planned to promote improvement of facilities at two non-INPRES markets (Pasar Dahlia and Pasar Nipah Kuning), where there has been sufficient interest shown by a private developer in renovating existing facilities.

Constraints

From the point of view of Dinas Tata Kota (Urban Planning Department), splitting market management between PD Pasar and Dinas Pasar has resulted in a weakening of management potential for both agencies (due to lack of clear definition of each agency's function and

authority). Other obstacles to development of the market sector include no legislation (Perda) regulating business activities conducted on areas designated for commercial use, such as between the retail and wholesale sectors, resulting in many "mixed activities".

3.5.2 Other Facilities

Passenger Terminals

Passenger terminal facilities are managed by DLLAJR (Highway Traffic Transportation Department) in the framework of Unit Pelaksana Terminal (Terminal Executing Unit), while Pemda Pontianak only provides the terminal building. There is only one Central Terminal in the city, in Batulayang, with the only other official terminal located on Jl. Sisingamangaraja. Other facilities could only be termed shelters.

There is a difference of opinion on several issues between Pemda and DirJen Perhubda (D.G. of Land Communications) which is reducing the terminal's efficiency. A major problem between the two agencies lies in determining which public transport vehicles do not have to enter the terminal. Because of these difficulties, and in order to reach revenue targets at the terminal, all forms of transport using the terminal must pay user's fees for six months in advance, upon application for use of these facilities.

The frequency of vehicle arrivals/departures at the central terminal is 18,500/18,150 respectively per month (225,000 arrivals and 205,000 departures per year). Terminal fees are set at Rp 600 for intercity vehicles and Rp 400 for city vehicles. Pemda assesses these fees at the rate of 20 days per month, so every vehicle using the terminal must pay Rp 12,000 per month, or a total of Rp 72,000 for the six-month period that must be paid in advance. The average annual revenue from all terminals in Pontianak was about 105 million in 91/92 (to September, 1992, this figure was Rp 55 million).

From this total revenue, deductions to cover salary and personnel costs, material purchase and building maintenance account for only 20% of the total. Fees collected for advertising displays in the terminal area are not yet included in the total terminal revenue, but are still included in the total advertising tax revenue for the city.

Batulayang terminal was built in 1987 by the private sector (both the land and buildings), in joint cooperation with Pemda. The terminal was built by a private developer in return for receiving permission to construct a shopping complex adjacent to the new terminal. Upon terminal completion, it will be handed over to Pemda and become a city asset. However, up to the time this report was prepared, the shopping complex was only 50% occupied. In this situation, Pemda has retained the most fortunate position.

Slaughterhouse Facilities

Slaughterhouse facilities in Pontianak are still under the control of Dinas Peternakan (Department of Livestock). The present slaughtering volume is 50 cows and 90 pigs per day.

Compared to most other cities, with the exception of Surabaya, slaughterhouse facilities are fairly well managed. There are two private businesses involved in this sector, PT Penta Graha Mustika (PT PGM) and PT Bajong Permai.

PT PGM is involved in pig slaughtering, and supervises slaughter of 70 animals per day. RPH Babi (Swine Slaughterhouse) was established as a private slaughterhouse in 1983, and initially managed by a cooperative. PT PGM took over management of this facility through its own initiative. It can be seen that this initiative came from the private sector because opportunities were seen for the future of this business, although the initial slaughtering volume when managed by Pemda was very low. Under the existing management agreement, full ownership of slaughtering facilities is retained by Pemda, and PT PGM has the right to manage the facilities on a renewable five-year contract.

Under this agreement, PT PGM does not supply the livestock. The target of volume to be slaughtered is set by Pemda, and it appears that this volume could be increased to meet local demand. Pemda received revenue from RPH Babi totalling Rp. 330 million for 1991/92. PT PGM receives commission for every animal slaughtered.

The main constraint to further opportunities for the private sector is the existence of illegal slaughterhouses, and RPH Babi, or the private sector itself, must take steps to deal with eliminating this competition. Plans by PT PGM to build new facilities or expand present ones have already received Pemda approval.

In addition to the above, another private company, PT Bajong Permai, raises and fattens cows for export to Singapore. This company's capacity is quite large, but almost 100% of the livestock is exported.

Parking Facilities

About three years ago management of parking facilities in Pontianak was transferred to the private sector, however these facilities finally came under the jurisdiction of Kodya/BPP (Badan Pengelola Perparkiran, or Parking Management Agency) Pontianak. At that time the Pemda target for parking fee collection was about Rp 48 million per year. Kodya/BPP's service contract was terminated because of their inability to meet this target, and the methods used for fee collection. Since that time, parking facilities have been managed by Pemda itself, and revenue from this sector reached Rp 191.5 million (1991/92).

Throughout Pontianak there are only three parking facilities, usually located at markets. There is no private sector participation in parking fee collection in other areas (such as hotels, supermarkets or restaurants).

4. SUMMARY AND CONCLUSIONS

4.1 Summary

In summary, it would be a positive development to encourage private sector participation in those areas where potential for such investment exists.

4.2 Conclusions

It can be said that there is tittle private sector participation in urban services in Pontianak. As is the case in other cities surveyed, most of the existing participation is in the commercial sector, such as in markets, terminals and housing.

It is interesting to observe that Pontianak, like Yogyakarta, has significant economic potential (determined by the amount of PADS/Regional Own Revenue contribution to the total APBD II). Developments in the industrial and trade sectors are occurring very rapidly, a situation that is not lost on the local public, who are very aware of the economic potential of Pontianak. Perhaps one reason for this rapid development is Pontianak's proximity to a foreign country.

If Yogyakarta's major constraint to development is the limited area available for expansion, Pontianak's lies in the morphological conditions of the city region, as well as its low-lying and flood-prone position on the banks of the Kapuas river.

As a result, Pemda Pontianak has devised a development concept for the city that addresses these physical constraints, while still exploring the possibility of private sector involvement in development of urban and commercial services.

Some possibilities that exist at present for prospective private sector involvement include those presented by industries, commercial area development, provision of housing facilities in the upper-middle range, city terminal development, warehouse facilities, solid waste management and management of LPA (Permanent Disposal Site).

PSP FORM SUMMARY

SECTOR : WATER SUPPLY
SUB SECTOR :
CITY : PONTIANAK

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO						
o. BOT						
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT	■					

Notes :

1 = Raw Water Installation, Transmission, Reservoir
2 = Main Pipe Distribution
3 = Pipe Maintenance
4 = Bill Collection
5 = Meter Reading
6 = Administration and Management

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : SOLID WASTE MANAGEMENT
SUB SECTOR :
CITY : PONTIANAK

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO						
o. BOT						
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT			■			

Notes :

1 = Recycling Process/Treatment
2 = Composting Installation
3 = Collection/Transportation
4 = Street Sweeping
5 = Bill Collection
6 = Landscaping/Gardening

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : SINGLE FUNCTION COMMERCIAL
SUB SECTOR : MARKET
CITY : PONTIANAK

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO		■		■		
o. BOT	o	■				
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Rehabilitation/Up-grading Existing Building
2 = New Building Construction
3 = Management and Computerization
4 = Commercial Area Development
5 =
6 =

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : SINGLE FUNCTION COMMERCIAL
SUB SECTOR : SLAUGHTERHOUSE
CITY : PONTIANAK

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO			■	■		
o. BOT						
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract					■	
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Machine Cutting Facility
2 = Frozen Meat/Cold Storage
3 = Livestock and/or Fattening
4 = Market Distribution (Export Orientation)
5 = Cattle/Pork Cutting Services
6 =

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : SINGLE FUNCTION COMMERCIAL
SUB SECTOR : PASSENGER TERMINAL
CITY : PONTIANAK

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO						
o. BOT		■				
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Rehabilitation/Up Grading Existing Building
2 = New Building Construction
3 = Vehicle Washing Facility
4 = Landscaping and Interior
5 = Management and Computerization
6 =

■ = Present
o = Possible

CITY PROFILE

KOTAMADYA MEDAN

TABLE OF CONTENTS

1. BACKGROUND

Medan is the capital of the province of North Sumatera, and is classed a Kotamadya Tingkat II, or Level II District Capital city. It is the third largest city in Indonesia and has the country's largest harbor with connections to Singapore, Kuala Lumpur and Penang. Medan has been developing its potential as a commercial center since the arrival of the Dutch in 1872, mainly through exploiting plantation crops such as rubber, tobacco, coffee and oil palm. These plantation crops still contribute 30% of the total annual exports of Indonesia. Almost all of these exports pass through Belawan harbor in Medan.

Medan is divided into 11 Kecamatan (sub-districts), broken down into 116 Kelurahan (urban villages) and covers an area of 265 km^2. Total city population is about 2,000,000, with an average density of 6,415 persons per km^2. The most congested area of the city is Central Medan.

Concerns regarding increased population growth lie in the limitations of the city's urban facilities and services, lack of job opportunities, problems experienced in transportation of needed goods through the city, and the environmental strains placed on the city by its burgeoning population.

2. PSP ACTIVITIES OVERVIEW

The private sector is not particularly active in urban services if compared to developments in Jakarta and Surabaya. Private sector participation is mainly in the market, public transportation, housing and industrial sectors.

According to the chairman of the North Sumatera chapter of the Real Estate Indonesia organization, the local government (Pemda) does not have a cooperative or open attitude towards the private sector, and there are at present no Pemda programs including the private sector as a partner. In addition, the government does not have clear policy regulations or programs designed to include the private sector in its activities. Many suggestions have been made from the private sector, but with no response from Pemda, or no subsequent follow-up.

Opportunities for developing cooperation between Pemda and the private sector are in the areas of provision of fire extinguishers, septic tank desludging and solid waste transport, and terminal construction and management. One of the obstacles to improved cooperation on Pemda's part is the lack of documentation and statistics which would be required for initiatives from the private sector (for example, there is no information on how many tons of waste bone is produced by the government slaughterhouse. It has been planned to use this as material for buttons, which would be exported to Singapore).

Another obstacle is in the lack of clear guidelines or manuals defining private sector participation, either from the local or central governments. This has acted as a disincentive to Pemda in making a breakthrough in cooperation with the private sector, and has even resulted in Pemda's refusal to give out any information, such as its City Development Plan (RPK), long-term City Structure Plan (RUTRK), general statistics, etc. to the private sector.

3. SECTOR ANALYSIS

3.1 Water Supply

3.1.1 Experience

The private sector participates by managing bill collection for all clients of the Regional Water Enterprise (PDAM) in Medan (with the exception of the Armed Forces/ABRI) based on a monthly collection target. This is handled by PT. Multi Jasa on a five year contract and under bank guarantee. An extension of the contract is possible when it is completed.

Work contracted out to the private sector have included repairing pipe leakages, water treatment plant maintenance, and pipe installation. A unique aspect of this sector is that PDAM Tirtanadi in Medan is actually the Regional Water Enterprise for the Level I Provincial Government of North Sumatera, but it only distributes water to areas adjacent to Medan.

3.1.2 Opportunities and Constraints

In the private sector's planning for investment in water supply, they must keep in mind the many social factors involved in this service to society. These factors greatly affect tariffs for water supply set by the government, and also ensure that endeavors in this sector cannot be oriented 100% towards business gains. At present in Medan, approximately 15% of industry is billed at the highest rate. It is very difficult to implement a cross-subsidy system. The main obstacle to private sector participation in this service is the problem of setting a reasonable tariff. PDAM Tirtanadi has established that the cost of drinking water delivery is Rp 360/m^3, but charges Rp 170/m^3 to its clients. This results in monthly operating losses.

Private sector cooperation was once attempted between PT Bakri Brothers and PDAM Tirtanadi, but this failed.

3.2 Wastewater and Sanitation

3.2.1 Experience

Septic tank desludging is carried out by the local city cleaning department (PD Kebersihan), using three trucks. Activities in this sector are covered by a Local Legislative Regulation (PERDA) and therefore the private sector is barred from any involvement.

3.2.2 Opportunities and Constraints

No private sector participation is possible in desludging services under the existing regulations (PERDA) as set out by Pemda.

3.3 Solid Waste Management

3.3.1 Experience

Solid waste removal is managed by PD Kebersihan with no private sector involvement. There is cooperation between PD Kebersihan and PT Jaya Tani from the private sector and UDKP (the Area Working Unit for Development (Kecamatan level) in recycling activities. In Medan, recycling carried out by scavengers is better directed and organized than in other cities. The finished product of composting, compost fertilizer, is first tested in the Dinas Perkebunan (Estate Crops) laboratory, and 80% of after-sales profit goes to the UKDP and PT Jaya Tani, with 20% to PD Kebersihan. They jointly market compost fertilizer. There is also a cooperation agreement between PD Kebersihan, real estate developers and Perumnas (National Housing Corporation) to transport garbage from the LPS (Temporary Disposal Site) to the LPA (Permanent Disposal Site).

3.3.2 Opportunities and Constraints

A constraint to more effective solid waste management lies in the need to construct a new LPA to serve North Medan, using the Sanitary Landfill system. PD Kebersihan is mired in financial difficulties, and thus is willing to incorporate the private sector in building incinerator facilities for the project. There is even an investor who is interested in carrying this out, and the project is at present being surveyed, and technical feasibility discussions are being held.

The main obstacle, however, to this plan are the restrictions placed on PD Kebersihan's ability to involve the private sector by its own regulations.

3.4 Integrated Area Development

3.4.1 Experience

The largest of the new real estate developments constructed by the private sector is Setia Budi Indah. A Management Board (Badan Pengelola) was formed for this housing estate, specifically to handle problems such as sanitation, security, water supply, etc. The occupants can make all their complaints to Pemda, LKMD (Village Development Institution), etc. through this board. All bill collection from PDAM, PD Kebersihan, PLN (State Electricity Authority), etc. also goes through this board and not directly to the individual homeowners. This is a pilot project that will be introduced in other housing estates throughout the Medan area.

REI North Sumatera has 40 members, and REI Aceh province has 12, with almost all of them domiciled in Medan.

3.4.2 Opportunities and Constraints

The local REI North Sumatera chairman blames constraints to private sector participation in integrated area activities on Pemda's attitude, which is not cooperative.

Pemda is not receptive to improving cooperation with and opportunities for the private sector, and it is also constrained by its own bureaucracy.

There is neither policy nor a clear program developed by Pemda defining how the private sector should become involved in Pemda activities, what shape these activities should take, and what limitations there would be governing them. For example, the developer of the Setia Budi Indah housing estate proposed that his company arrange land expropriation necessary to develop Medan's outer ringroad (which will serve the new housing developments), at no cost to Pemda for payment to land owners. This idea was rejected by Pemda. The main obstacle to private sector participation is that there are no regulations from either the local or central governments specifically encouraging or discouraging these endeavors.

3.5 Commercial Facilities

3.5.1 Experience in the Market Sector

Dinas Pasar (Market Board), under Pemda's direction, is the technical agency responsible for planning, implementation and improvement of markets in Medan.

Both state and private markets are managed by Dinas Pasar (based on PERDA 8/88, PERDA 8/89 and PERDA 14/90). There are 58 markets in total, divided into grading of facilities and activities as follows :

1. a. markets with permanent buildings
   b. open (no permanent buildings) markets
   c. markets constructed by the private sector

2. The activities under Dinas Pasar management are divided into three areas:
   a. Activities taking place from morning to late afternoon
   b. Nightly activities
   c. Morning activities

Dinas Pasar manages these markets by assessing user fees and collecting this revenue through 11 "Payment Points" which are part of its market management structure, and which payments are paid into Pemda's Regional Own Revenue.

To date, it can be observed that Dinas Pasar's method of market development and management without using National or Regional Revenue and Expenditure Budgets (APBN, APBD) requires the inclusion of inputs from the private sector. In fact, private sector participation has been very prominent in developing facilities and improving services.

The following describes the models used for private sector participation in market development:

a. The local government provides the land, and all facilities are constructed by the private sector, with the developer receiving 50% of the user fees upon completion (Pasar Aksara).

b. Pemda provides the land, the facilities are constructed and sold by the developer, but Pemda retains full rights to user fees (Pasar Petisah).

c. The private sector provides the land and also constructs the market. Pemda receives 100% of user fees in some cases, or shares these 50-50 with the developer (Pasar Sambas).

d. The private sector provides the land, builds and manages the market, with 50% of fees collected going to Pemda. This format is used for supermarkets.

3.5.2 Opportunities

In developing and managing large markets such as shopping centers, the private sector plays a large role in meeting demand.

Opportunities which could be improved to increase private sector participation in market management are in the areas of:

- cold storage
- public washrooms and sanitation
- rehabilitation and management of kiosks
- management and development of markets
- increasing Pemda's Regional Own Revenue
- central market construction

Market management and development should be well-supervised, and utilize all components of the market system.

In order to increase Regional Own Revenue, new sources of revenue should be explored and a commitment/agreement arranged with the wholesalers for user fee payment.

To develop central markets, a structure must be created to attract vendors offering many different kinds of goods and services, and to serve as a genuine center for trade.

3.6 Other Facilities

3.6.1 Industry

Medan has an Industrial Estate which is managed by PT KIM (Medan Industrial Region Board, a state-owned enterprise). It was established using capital from the central government Ministry of Finance (60%), the North Sumatera provincial government (30%) and Pemda Medan (10%).

The criteria for establishing an industry in this region is based not on the nature of the product, but on how much pollution will be generated by the enterprise.

Building and other permits are arranged by the industry developers themselves, with a letter of recommendation from PT KIM.

Wastewater disposal and treatment are managed by PT KIM. A private investor (PT Lamhotma) manages the industrial region located in Belawan near the harbor, which covers about 650 hectares.

PT KIM has involved Pemda by asking them to build a road connecting the old toll road with the new one, and also in providing fire stations to serve the area.

3.6.2 Parking

Medan has a Badan Pengelola Parkir (Parking Management Board) which was formed through Perda 7/81 in 1981. Income reached Rp 3,000,000 for 1991, which was the targeted amount. The target for 1992 was Rp 6,000,000 (figures not yet in). This income is divided into 40% for BPP and 60% for Pemda. This division is based on SK Walikota, or mayoral decree, which is issued monthly specifically to regulate this parking income.

In parking services Medan does not involve the private sector, except for a 4-story parking building built by PT Deli Plaza. Income from this facility is divided between BPP (40%) and the private developer (60%). On certain streets parking is also handled partly through private sector input. This follows the form of having the private parking manager pay BPP the estimated target amount to be collected, and receiving in return BPP parking tickets to be used. In certain areas, like at cinemas, restaurants, recreation centers, etc., the private sector shares in the profits with BPP. There are no plans to involve the private sector in actual parking fee collection.

Private sector participation in Medan city has used the following models:

- ruilslag, or exchange system:
  The private sector provides land and builds facilities for government departments outside the city center. In return, the government makes land available to develop shopping centers or offices by a private developer, usually in the city center.

- management contract:
  Terminal management by the private sector (this is still in the planning stage).

- profit sharing scheme:
  This is the system used in the parking sector.

3.6.3 Slaughterhouses

Medan's RPH (local state slaughterhouse) is managed by the Dinas Peternakan & Rumah Potong Hewan DPRPH (Livestock and Slaughterhouse Board). In the near future it will be transferred from Dinas Peternakan to a PD (local state company) format. There are opportunities open to the private sector in livestock provision and fattening.

Pemda received slaughtering fees amounting to Rp 750 million in 1991 from DPRPH, and up to October of 1992 had collected Rp 486 million. This is a good potential source of increased revenue for Pemda Medan.

3.6.4 Terminals and Other Facilities

There are two bus terminals in Medan which are managed by PDPKM, or the Medan City Development Enterprise, which is a BUMD, or locally owned state enterprise, under Pemda Medan. These were constructed in 1990 and financed by a loan from the Ministry of Finance. Terminal management activities by PDKMD included bus fees collection, terminal passenger user's fees, kiosk leasing, etc.

The Mayor of Medan has authorized PDPKM to act as the recommending agency for all permit requests to develop housing or shopping centers from the private sector. This is done with a view to controlling land speculation in areas where a developer plans a major project. This method of using location permit recommendations from PDPKM is a form of cooperation between Pemda and the private sector.

4. SUMMARY AND CONCLUSIONS

4.1 Summary

Pemda Medan, through Dinas Pasar, manages the local markets in such a way that it provides both a service to the public and a major source of Regional Own Revenue.

Through cooperation with the private sector it is expected that market management and coordination will be done on a more professional basis, and also that revenue will be increased.

4.2 Conclusions

Markets are a real source of Regional Own Revenue for Medan, and increased cooperation in market management, development and operation should be oriented to increasing this revenue.

PSP FORM SUMMARY

SECTOR : WATER SUPPLY
SUB SECTOR :
CITY : MEDAN

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO						
o. BOT						
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract	■		■	■		
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Raw Water Installation, Transmission, Reservoir
2 = Main Distribution
3 = Pipe Maintenance
4 = Bill Collection
5 = Meter Reading
6 = Administration & Management

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : SOLID WASTE
SUB SECTOR :
CITY : MEDAN

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO		■				
o. BOT						
o. JVC	■	■				
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract			■			
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Recycling Process
2 = Composting Installation
3 = Transportation
4 = Street Sweeping
5 = Gardening & Landscaping
6 =

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : SINGLE FUNCTION COMMERCIAL
SUB SECTOR : MARKET
CITY : MEDAN

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO		■				
o. BOT		■				
o. JVC		■				
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Rehabilitation and upgrading of the existing building
2 = New Building Construction
3 = Management & Computerization
4 =
5 =
6 =

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : SINGLE FUNCTION COMMERCIAL
SUB SECTOR : PARKING
CITY : MEDAN

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO	■					
o. BOT						
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract				■		
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Multy Storey Parking Area
2 = Improvement Existing Parking Lots & Management
3 = Bill Collection
4 = On Street Parking
5 =
6 =

■ = Present
o = Possible

CITY PROFILE

KOTA ADMINISTRATIP BEKASI

TABLE OF CONTENTS

1. BACKGROUND

The city of Bekasi is the capital of Kabupaten Bekasi in West Java province and was given the status of Kota Administratip (special administrative status of an urban area within a kabupaten, or regency) by the central government. Bekasi is divided into 4 kecamatans (sub-districts) and 26 kelurahans (urban villages). The city area covers 8,510 hectares and the population in 1990 was approximately 350,000. Positioned relatively near Jakarta, Bekasi's physical characteristics and development activities are similar to those in that city. Because of this close proximity with the nation's capital, it is not surprising to note a high rate of annual population growth, around 7.13% per year.

One aspect of Bekasi's character that must be noted is the role it plays as one of the JABOTABEK (Jakarta/Bogor/Tangerang/Bekasi) area cities. In this aspect Bekasi differs from other cities in West Java, in that it plays a major role in supporting the functions of Jakarta as the capital of the country (this was determined by national legislation UU/11/90).

As regards the city's economic sector activities, Bekasi is heavily influenced by activities on the Kabupaten scale, and within these activities agriculture and industry are the two sectors making the greatest contribution to economic growth. The per capita income for Bekasi was Rp 800,000 in 1989/90. Investment activities are generally in the housing and industrial sectors (mainly the chemical and electronics industries).

The local government (Pemda) of Kabupaten Bekasi is restricted in its ability to rapidly anticipate future development due to the limited development fund allocations available. Bekasi's Regional Budget (APBD II) for 1989/90 was Rp 20 billion, with 39% coming from the city's Regional Own Revenue (PADS). This total allocation must be divided between Pemda Kabupaten Bekasi and Pemda Kotip Bekasi (Administrative City Administration) to cover city development costs. It is therefore natural that Bekasi's main problem lies in a lack of urban infrastructure services.

2. PSP ACTIVITIES OVERVIEW

Private sector participation, especially investment, is noticeably absent from urban services such as water supply, wastewater and sanitation and solid waste management. This participation and investment initiative is, however, prominent in development of the housing and industry sectors.

Moreover the private sector is not well represented in the commercial facilities sector, such as in terminal management, parking and slaughterhouse facilities. The private sector is, however, heavily involved in construction and renovation of market facilities and market management, and also in public transportation.

Bekasi, in addition to being the local government (Pemda) for a Level II Kabupaten, also has the role of being an Administrative City (Kotip). Although some Kotip officers were

interviewed, most interviews were conducted with officials from the various agencies (Dinas) related to Pemda Tk.I Kabupaten Bekasi.

In particular for Kotip Bekasi, private sector participation is required in city cleaning services, kampung (village) improvement, construction of shops, shopping centers and housing estates, construction of other urban facilities such as hospitals, markets, etc. These developments require major capital input which Kotip Bekasi is unable to provide.

Responsibility for issuing development and construction permits to the private sector lies not in the hand of Bekasi's mayor, but rather with the Bupati (Regent, Kabupaten Head) and relevant agencies at the kabupaten level (Pemda Level II Kabupaten). Occasionally these permits are issued by the Governor of West Java, as is the case with zoning permission for real estate developments.

3. SECTOR ANALYSIS

3.1 Water Supply

3.1.1 Experience

PDAM (Regional Water Enterprise) provides water supply services throughout Kabupaten Bekasi. There is as yet no experience with participation from or cooperation with the private sector in provision of city water supply. What little experience there may be is limited to installation of water supply systems by developers in new housing estates or industrial complexes.

In the scale of services offered by Kotip Bekasi, there is actually no scope for private sector participation in the water supply sector, except for areas outside Kotip Bekasi. These areas include Kemang Pratama housing estate (with a 20 l/sec. capacity pumped from a river), ADP-Pondok Timur Mas housing estate, and the Jababeka Industrial Area, with a capacity of 180 l/sec. (at present only operating to 20% of capacity).

PDAM capacity at present is around 110 l/sec. and covers a service area of around 18% of the total urban area. Water tariffs are set at a rate of Rp 346/m^3. PDAM is increasing its capacity to 200 l/sec. for Kotip Bekasi and 100 l/sec. for Cikarang. This service improvement is financed through an ADB Phase II loan of US$ 11,000,000. In addition to improving capacity as described above, PDAM is constructing a water treatment installation with a 150 l/sec. capacity, which is planned to serve the north Kotip Bekasi area. This plant is financed through PDN (Domestic Loan).

Upon completion of this water treatment plant, it is hoped that PDAM will be able to extend its services to 48% of the urban inhabitants of Kabupaten Bekasi. Efficiency in water bill collection is 80%, and water losses average 30%.

3.1.2 Opportunities and Constraints

Private sector participation in the water supply sector at present is still only "partial", and is not included in the urban service system. In this regard, PDAM plans to increase water supply services, and hopes to encourage private sector involvement through the BOT system (turnkey project). These efforts to improve water supply services in Kotip Bekasi are divided into three phases: Phase I in North Bekasi, Phase II in South and East Bekasi, with Phase III further extending services in North Bekasi.

It is estimated that there are 20,000 potential clients waiting to receive water supply services. PDAM is providing opportunities to the private sector to participate in provision of services to these clients, wherein the private developer is allowed to locate the prospective water user, and then install the required system under PDAM technical specification and supervision. Throughout Kabupaten Bekasi, PDAM's target up to 1995 is to provide water supply connections to 8,000 additional households. Of this total 4,500 units would be turned over to the private sector for system provision (mainly in housing and real estate developments). Implementation of this program is not progressing smoothly, however, due to technical constraints and payment arrangements between PDAM and the private investors who wish to install these systems in their housing developments.

3.2 Wastewater and Sanitation

3.2.1 Experience

All sanitation and wastewater activities are managed by Dinas Kebersihan and Pertamanan/ DKP (Urban Cleaning and Parks Service) under the Cleaning Operations Section (the other two sections under DKP are the Cemeteries Section and Park Planning Section).

There is no private sector participation in wastewater and sanitation services. These services are provided solely by DKP, and its capability in this sector is a very sad story indeed. DKP has not yet provided a Permanent Disposal Site (LPA) for wastewater and human waste. It has two desludging trucks, both of which are out of operation. As a result, the general population must handle disposal of their own household waste, and those that do not have sanitation facilities (septic tanks or others) use the rivers for dumping wastewater and human waste.

For residents outside Kotip Bekasi the problem is not so pressing; however, within Kotip Bekasi itself heavy population congestion creates very real problems in waste disposal.

In addition to the major problems presented by disposal of household waste, disposal of industrial waste is also not addressed. Pemda limits its activities to carrying out central government environmental legislation which stipulates that Pemda only supervises industrial sector activities in disposal of untreated wastewater and industrial waste. Pemda only notes what types of industry they suspect or assume are producing waste that is dangerous to the

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environment, and has no actual operational activities aimed at controlling industrial wastewater disposal.

3.2.2 Opportunities and Constraints

As can be seen above, if one considers the potential of Kotip Bekasi (and also Kabupaten Bekasi as a whole), particularly in relation to its proximity to Jakarta, there is definitely a large opportunity for increased private sector participation in delivery of urban services. The intensity of activity and level of investment of Bekasi's inhabitants is almost the same as Jakarta, and in addition the Bekasi region is the center for many industries.

However, intense as this development activity might be, it is not matched by a similar strength in local institutions and related agencies which are required to accommodate opportunities from the private sector. Pemda does not have any concepts or operational guidelines covering potential benefits from private sector involvement, as outlined above. This situation acts as a constraint to the private sector's desire to provide a management alternative in the wastewater and sanitation sector.

3.3 Solid Waste Management

3.3.1 Experience

As is the case in other Administrative Cities, solid waste disposal is managed by Suku Dinas Kebersihan (Sudin Kotip), which in the city management structure comes under the mayor's office. Operationally, however, it is supervised by Dinas Kebersihan and Pertamanan (DKP). The survey determined there was no previous experience in cooperation between Pemda and the private sector in solid waste management.

Compared to other cities, Sudin Kotip and DKP Kabupaten Bekasi lag far behind in this sector. The revenue target for 1992/92 was only about Rp 55 million for Sudin and Rp 20 million for DKP, with the source of this revenue coming from a garbage removal fee of Rp 1,250/month (established through Perda 4/1987). There are more than 175 employees in these two agencies. DKP Kabupaten Bekasi was only established recently (Perda 9/1991). They therefore cannot provide data on volume of solid waste collected. However, garbage volume is greater in the Kotip area than throughout the Kabupaten (various documents contained data setting total volume of solid waste created each day for Kotip Bekasi at about 1,320 m^3, and only 49% of this can be transported and disposed of by Sudin Kebersihan).

Street sweeping is done by Sudin/DKP and includes all main roads in Bekasi city, Pondok Gede, Cikarang, Cibitung and Tambun. The city's two LPA are located in Bantargebang and Cikarang, with the Cikarang LPA used solely by DKP.

3.3.2 Opportunities and Constraints

There are no plans or concepts to include private sector participation in solid waste management, either in Kotip Bekasi or on the Kabupaten Bekasi scale. On the other hand, there is considerable potential for this participation, due to the industrial areas that are not yet serviced and the requirement for garbage collection from housing developments that are still under-serviced (see Markets: Dinas Pasar receives an income of Rp 140 million per year (92/93) just for collection of market waste totalling 360 m^3/day).

As DKP was only recently established, it is still in the process of consolidating all its resources, as well as attempting to get on with its assigned tasks. Many internal problems at DKP must first be addressed before any private sector participation in its activities can be considered.

Additionally, the general public's awareness and attitude concerning garbage disposal and removal is, according to Pemda, rather poor. Pemda also considers the fees paid for garbage removal services to be too low, and do not even meet the official fee guidelines. Also, the public makes no effort to assist DKP in garbage disposal. Even aside from the dubious quality of DKP's services, these constraints posed by the public cause real problems for private sector participation in the future.

3.4 Integrated Area Development

3.4.1 Industrial Development

This industrial development area is located outside Kotip Bekasi in the kabupaten and covers an area of 3,000 ha. A total of 2,300 ha. has already been released for industrial development. There are private companies actively involved in integrated area development activities. Eleven of these "Industrial Area Management Companies" have already received zoning permits from Pemda Kabupaten, and five of these are involved in selling land plots for factory development. These companies arrange all permits which are required by the new factories (building permits, construction disturbance regulations, etc.).

Kotip Bekasi allows existing home industries which do not pollute the environment with dangerous waste, and which do not have heavy labor requirements, to remain within its limits. All other industries, particularly those producing heavily polluted wastewater must move to the industrial zone described above.

All policy decisions and authority for issuing permits concerning industrial development rests not with Pemda Kotip, but in the hands of Pemda Kabupaten Level II Bekasi.

3.4.2 Housing Development

Although 60% of all new real estate developments for Kabupaten Bekasi lie within the boundaries of Kotip Bekasi, all permits required by developers come under the authority of Pemda Kabupaten.

Pemda Kotip Bekasi (the mayor's office) has no authority. Only building permits for construction or renovation of houses outside housing estate areas can be issued by the mayor's office.

In reality, there is no longer land available inside Kotip boundaries for new housing estates.

Within the Kabupaten Bekasi area there are 259 real estate development areas, involving between 120 and 130 developers, which have received zoning permits from Pemda since 1976. These permits conform to the following regulations :

- Zoning permits for housing estates of up to 15 ha. in area (based on KPR BTN) can be issued by the Bupati, or Kabupaten Regent. For areas of over 15 ha., this permission must be obtained from the Governor of West Java.

- Zoning permits for real estate developments, without limit on area size, can always be issued by the Governor of West Java.

Before building permits are issued for housing developments, the developer must present a "Rencana Tapak" or estimation of time required to complete the project, to the Bupati/KDH (head of district government) for approval.

Zoning regulations require the developer to provide social facilities, such as sports facilities, places of worship, public parks and others, totalling 40% of the area covered by the zoning permits for housing estate development. In reality, however, only 8 of the 259 real estate developments have actually delivered these facilities (Perumnas, Kompleks Mas Naga, etc.), and 10 more are in the process of providing them. The constraints to provision of these facilities include:

- many real estate developers have abandoned their housing estates, leaving the areas empty with no construction in progress;

- maintenance costs for these social facilities are rather high, and Pemda does not yet have the budget to handle these costs.

Throughout Kabupaten Bekasi, 7,800 hectares have been targeted for new real estate development, with 4,000 ha. already released for development. The remaining 3,800 ha. are in the process of being released for private sector development.

Out of the 259 real estate development areas, 36 of them have not yet begun preparation or construction activities. Most of these remaining sites will be used by the government for

official housing, and 12 of them are held by private developers. In theory zoning permission could be revoked, however in practice this has never happened.

A major constraint to private developers in the housing sector is the difficulty in obtaining land title ownership. A great deal of the land released for real estate development is held by land brokers. Pemda generally does not get involved in the issue of land title disputes between private developers.

3.5 Commercial Facilities

3.5.1 Slaughterhouses

Experience

Kabupaten Bekasi has two slaughterhouses (RPH), one owned by Pemda Kabupaten Bekasi and one by a private developer (PT Sampico Adi). There is no cooperation between Pemda and the private sector to encourage further private investment in activities or development of slaughterhouse facilities.

In addition to these two RPH, there is a poultry slaughterhouse run by PT Sapto Pati which provides chicken to hotels, supermarkets, etc. Pemda is involved in this operation through provision of health inspections by Dinas Peternakan (Department of Livestock) and by collecting slaughtering fees.

The following private sector companies are involved in livestock fattening:

- PT Sadimun Bulak Adi in Cikarang
- PT Lembu Jantan in Kedungwaringin
- BULUG in Tambun (holding ground for livestock)

Opportunities

Utilizing the BOT system, the private sector constructs facilities for slaughterhouses, managing these facilities for a set period of time before transferring them to Pemda.

There is no shortage of demand for meat products, given Bekasi's close proximity to Jakarta and the area's many hotels, restaurants, etc.

There is a tendency for the private sector to establish slaughterhouses in Kabupaten Bekasi, and not in Kotip (where there are no RPH and no plans to develop any).

Constraints

- cattle for slaughter come from outside Bekasi
- there is little land available for development in Bekasi, and land costs are prohibitively high.

3.5.2 Markets

Experience

There are 20 markets in Kabupaten Bekasi, and 5 in Kotip Bekasi. Private sector participation in market activities has followed these formats:

a. Private developers build markets on their own land, and after an agreed period hand the facilities over to Pemda Kabupaten (Pasar Harapan Jaya, Pasar Sumber Jaya and Pasar Jati Asih);

b. Private developers renovate old markets located on property owned by Pemda using their own funds, and revenue derived from this development is split with Pemda (Pasar Cikarang and Pasar Pondok Gede).

In addition, the central fruit and vegetable market in Cibitung is managed by Pemda, and supplies the Jakarta area. All markets in Kotip Bekasi are directly managed by Dinas Pasar Kabupaten.

Dinas Pasar received user fees from vendors in all markets, with the exception of supermarkets and shopping malls.

Opportunities

Private investors are planning to build markets in modern housing estates, such as Lippo City, KCB (Kota Cikarang Baru), etc.

Initiative to construct or renovate markets can come from either Pemda or the private sector. There is no system for tendering, and projects are carried out on the basis of trust, with developers appointed directly by the Bupati.

Constraints

Dinas Pasar does not provide actual management services to the markets and remains more social service-oriented. There is no plan to establish a Perusahaan Daerah, because of intense competition from the area's supermarkets.

Many markets are controlled by "jagoan", or criminal elements.

3.5.3 Parking

Parking facilities in Kabupaten Bekasi are managed by UPTD (Technical Implementation Unit) under Dispenda (Regional Revenue Office). UPTD manages all on-street parking along major roads, including those in Kotip Bekasi. Parking management by the private sector is allowed in certain buildings and locations, for which permits are granted by the Bupati based on the recommendations of the Parking Management Permit Review Board (Panitia Pertimbangan Perizinan Pengelolaan Parkir).

Parking management guidelines for Kabupaten Bekasi were issued by the Bupati's office under directive 550.22/SK.178-Dipenda/1991, and includes regulations governing percentages to be shared between the government and private sectors from parking fees:

- parking lots built by a private developer using his own land: Pemda, 30%; developer, 70%;
- parking lots built by a private developer using Pemda land: Pemda, 60%; developer, 40%;
- parking lots which are built by a private developer and managed by Pemda: Pemda, 50%; developer, 50%;
- the developer must pay Pemda 20% of estimated parking fee revenue for parking lots which are built by the private developer but which charge no parking fees.

Management of parking facilities by the private sector on the developer's own land is possible either by receiving permission from the Bupati or through an agreement between the developer and the Kepala Dispenda.

3.5.4 Terminals

Private sector participation in terminals managed by Pemda could be in provision of trash containers (TPS) by bus companies to be placed in the terminals. The garbage from the terminals is transported to the LPS by Suku Dinas Kebersihan Kotip. A terminal was built by the private sector in Bekasi.

3.5.5 Other Facilities

The private sector should be involved in billboard advertising on a solely commercial basis, and this should not be subject to tax.

The private sector could become involved in city beautification along major roads, and also in park maintenance, as commercial endeavors. These activities should also not be subject to tax.

PSP FORM SUMMARY

SECTOR : SINGLE FUNCTION COMMERCIAL
SUB SECTOR : MARKET
CITY : BEKASI

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO		■				
o. BOT	■					
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Rehabilitation and upgrading of the existing building
2 = New Building Construction
3 = Management and Computerisazation
4 =
5 =
6 =

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : WATER SUPPLY
SUB SECTOR :
CITY : BEKASI

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO						
o. BOT	■	■				
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Raw Water Installation and/or Water Treatment/Reservoir
2 = Main Distribution System
3 = Pipe Maintenance
4 = Bill Collection
5 = Meter Reading
6 = Administration and Management

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : SINGLE FUNCTION COMMERCIAL
SUB SECTOR : SLAUGHTERHOUSE
CITY : BEKASI

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO	■		■			
o. BOT					o	
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Cuttiong Service
2 = Frozen Meat (cold storage) Facility
3 = Livestock supply and/or Fattening
4 = Market Distribution (Export Oriented)
5 = Holding Grand
6 =

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : SINGLE FUNCTION COMMERCIAL
SUB SECTOR : TERMINAL
CITY : BEKASI

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO						
o. BOT		■				
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Rehabilitation/upgrading
2 = New Building Construction
3 = Management & Computerization
4 = Vehicle Washing Facilities
5 = Landscaping and Interior
6 =

■ = Present
o = Possible

CITY PROFILE

SURABAYA CITY

TABLE OF CONTENTS

1. BACKGROUND

Surabaya is the capital of the province of East Java and the Gateway to Eastern Indonesia. With a population of 2.2 million people, Surabaya is a commercial and industrial city. During Pelita V, Surabaya's development strategy is to emphasize and encourage capital intensive industry in the city so that additional labor-intensive industries will not burden the government. Labor intensive industries will be encouraged to locate outside of the city. Thus, Surabaya's local government acknowledges that private sector investment in capital intensive industries is essential for achievement of the city's growth goals.

Surabaya is an entrepot port city with main shipping and air links to the other parts of the archipelago and overseas. As the second largest city in Indonesia after DKI Jakarta, Surabaya has a critical mass of urban economic and institutional activity to support private sector investment.

The Mayor of Surabaya, Dr. Poernomo Kasidi, is a medical doctor who has held his office since 1983. Many people in Surabaya, when asked why Surabaya is so advanced in its use of PSP in the provision of urban services cited the firm leadership of the Mayor. In many cases, even when the proposed PSP has no legal foundation, or even if it may conflict with regulations, the Mayor has been courageous enough to plunge ahead with programs that are advantageous to the people and face any negative consequences.

According to interviewees in Surabaya, the people of Surabaya are taught since childhood to be proud of their city and to participate in keeping it clean. Surabaya was awarded the Adipura Award for the cleanest city in Indonesia in 1988, 1989, 1990, and 1991. It received the Adipura Kencana award in 1992, and it recently was presented the "World Habitat Award" by Princess Margaret on behalf of the U.K.'s Building and Housing Foundation. According to press reports, only Singapore and Surabaya have been presented this award by Princess Margaret.

2. PSP ACTIVITIES OVERVIEW

Surabaya has PSP activities in all of the sectors surveyed, and some PSP activities have been models for local governments in other cities (for instance, the 100% private sector PDAM bill collecting system reportedly attains at least 94% efficiency, and it has been adopted by Medan and is being studied by Bandung).

Surabaya has been innovative in making PSP service contracts, and its government is the only one surveyed which has mentioned the efficiency advantages of PSP. Additionally, Surabaya generally involves more than one contractor in service contracts, and it uses a short contract period (usually three months) and a bank guarantee mechanism to ensure compliance and quality.

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The orientation of the Bappeda in Surabaya toward regulations is unique among the cities surveyed. In other cities, it was more or less felt that what was not prescribed in regulations was forbidden. In Surabaya, the orientation was that what is not forbidden in the regulations is possible.

Surabaya maintains Proyek Soepratman in which Pemda matches voluntary private contributions from private citizens and groups for urban infrastructure upgrading and maintenance projects. Although this program is limited (about $400,000 per year) by the amount of matching funds available, it is very well administered.

Although the local government has taken the initiative in almost all cases of PSP, there have been cases of proposed private sector participation that have come from Jakarta, and in general these have met with some local government opposition.

3. SECTOR ANALYSIS

3.1 Water Supply

3.3.1 Experience

Raw water installation, transmission, reservoir. The largest proposed BOT water supply scheme in Indonesia is the $200 million Umbulan Springs Water Supply Project. The project is to bring water about 60 km. to the city of Surabaya. The important points about this proposed project are:

The initiative for the project came from the Central Government, and the potential private investors came from Jakarta and overseas.
By the terms of the proposal,the PDAM must buy a minimum amount of water at a price the PDAM feels is far too high.

The water is to fill the needs of residential and commercial areas in Surabaya.

The PDAM feels that they could implement the project themselves at a lower cost.

For the above reasons, the BOT scheme has met with consistent problems and setbacks, and potential investors have withdrawn and been replaced more than once.

There are many lessons to be learned from this experience. One key lesson is that there needs to be coordination of BOT projects with foreign aid projects in general, and that local governments should be involved in the planning and structuring of BOT projects from the beginning. Matters of tariff, population served, and scale of project need to be worked out before private investors are called in.

Bill Collection. Fifteen private companies do 100% of PDAM Surabaya's bill collections with an average efficiency of 94%. The process first began in 1969 when

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competitive bidding was the basis for selection. Now each company is on a one year direct appointment contract. If any one company does not do its job well, its contract may not be renewed. Each private company has a bank guarantee from Bank Pembangunan Daerah to ensure that Pemda takes no risk if the company fails to attain its target.

Meter Reading. At the present time, meter reading in Surabaya must be done by the PDAM because it is felt that only PDAM-trained personnel can cope with the failures of meters and the many different kinds of meters which are now being used.

3.1.2 Opportunities

The Umbulan Springs plan is a continuing opportunity. There may be an opportunity for water meter reading if a private contractor could convince the PDAM its personnel were sufficiently versed in the types and characteristics of the different water meters which are used in the city.

Pipe Maintenance. Although PDAM Surabaya contracts to private companies the installation of large pipes, the PDAM has not yet established a system of selection of contractors to build, own, operate, and maintain transmission pipe.

3.1.3 Constraints

The main constraints to PSP in investment in the large headworks/treatment projects are the felt need of the PDAM to keep water tariffs low and the possibility of using multilateral funds to accomplish the same project.

The constraint to meter reading is the perception of PDAM that private contractors will be unable to cope with the variations and breakdowns of meters.

3.2 Waste Water & Sanitation

3.2.1 Experience

Human Waste Disposal Trucks. About 10 private companies provide almost 100% of septic tank desludging. The system is quite informal, involving only a certification of the desludging firms by Dinas Kebersihan. This method of human waste removal is reportedly only a small part--less than 10%--of the total human waste which is manually emptied and disposed in rivers and creeks.

PSP in this area began about 10 years ago because the facilities of Dinas Kebersihan were not adequate to the needs.

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3.2.2 Opportunities

There were no opportunities surveyed in this sector, although Dinas Public Works has a general plan that operations and maintenance of urban public works facilities may be contracted to private sector contractors. They would be responsible for roads, drainage, sewers, solid waste infrastructure, etc., in their assigned area.

3.2.3 Constraints

The constraint to PSP involvement in general public off-site sanitation is the difficulty in establishing and charging user fees.

3.3 Solid Waste Management

3.3.1 Experience

Surabaya's Dinas Kebersihan has been extremely active in planning for the involvement of the private sector in street sweeping, recycling activities, composting activities, and transportation of solid waste. It also has been innovative and risk-taking in acquiring and installing the incinerator at Keputih. A proposal to change Dinas Kebersihan to a Perusahaan Daerah currently is under consideration by Pemda. Although Dinas Kebersihan has been so active in organizing PSP, the Surabaya Master Plan for solid waste which is expected to be completed by a JICA team in March 1993, does not include plans for PSP involvement.

Recycling Process. The Institute of Technology Surabaya has joint ventured with the traditional recycling middlemen to form P.T. Mitraco, which is constructing a recycling center at the sanitary land fill site at Keputih. While Dinas Kebersihan provides the land, PT Mitrako provides about Rp 100 million for the building and facilities.

As in most cities, scavengers, or pemulung, perform recycling activities before the solid waste is collected from households and brought to the LPS.

Composting Installation. The Dinas Kebersihan plans that the private sector will become involved in handling of organic solid waste to sell as fertilizer, but they have not yet found an investor/contractor who is interested because the margin of profit is low considering the low price of competing products and the marketing channels that are required.

Transportation of solid waste. Transportation of solid waste from houses to temporary dumping sites is handled by the RT/RW system using the participasi masyarakat, employing about 10,000 people.

About 15% of the total transportation of solid waste in Surabaya from the temporary collection site to the sanitary landfill is contracted out to six private sector companies

who own and use their own trucks. The contracts are by direct appointment, and they last for only three months in order for the Dinas Kebersihan to keep strong control over the performance of the contractors. The system began in about 1980.

Street Sweeping. About 18% of the street sweeping is contracted out to 24 private companies by direct appointment service contract. Control over quality is maintained by limiting the contracts to three months at a time.

Dinas Kebersihan has recently purchased for Rp 35 billion a low grade diesel-fired incinerator plant which is installed at the LPA at Keputih. Dinas Kebersihan now operates the plant at less than the design capacity of 70.000 tons per year. It is interesting that Dinas Kebersihan feels this was not a good investment because the purchase cost and the cost of operation are so high.

3.3.2 Opportunities

The opportunities for composting activities appear to be strong because Dinas Kebersihan has taken the initiative to conceive of a PSP role. The most likely contractor would be a company that already has fertilizer marketing channels.

There also is an opportunity to increase the number of streets that are swept by private companies. And if more trucks are not financed by multilateral sources, it is possible to increase PSP in transportation of solid waste from LPS to LPA as the Dinas Kebersihan trucks wear out.

3.3.3 Constraints

One of the key constraints to PSP in this area is the competition from multilaterally funded aid projects.

3.4 Integrated Area Development

3.4.1 Experience

Real Estate developments

There are about 38 developers in and around Kotamadya Surabaya, but only about 10-12 of these developers have areas of more than 200 HA. The main urban services problem is with water supply for developments which are not within the PDAM piping system. In some cases, the residents are responsible for their own water, but in most large developments, the developer provides well water (either treated or untreated). After the developer recovers his cost, the water system is given over to the PDAM for operation and maintenance.

Industrial Estates

The main industrial estate in Surabaya is a BUMN, PT SIER (Surabaya Industrial Estate Rungkut), owned 50% by the Ministry of Finance, 25% by Pemda Tk I and 25% by Pemda Tk II Surabaya. The estate has its own common treatment plant. The user fees are based on the volume and type of pollutant found in each enterprise's waste. Each enterprise take its own solid waste to the estate's LPS, and the estate transports it to the LPA.

The only other industrial estate in Surabaya is the Sari Mulya Industrial Estate in Kecamatan Tandes, owned 100% by a commercial private sector company.

PT SIER is opening up another industrial estate outside of Surabaya in Kabupaten Pasuruan which will be managed also by PT SIER.

Taman Hiburan Rakyat. In 1989, Pemda agreed with PT Sasandboca that its land could be used for 30 years for development of an entertainment complex including a shopping mall. The company also agreed to construct relatively modest facilities for cultural activities. Pemda will adminster one-third of the land. At the end of 30 years, the facilities all revert to Pemda.

3.4.2 Opportunities

Real estate complexes will continue to be built as Surabaya grows. There will be further opportunities for privately-owned industrial estates in and around the Surabaya area, especially as the city implements its policy to encourage more capital intensive industry.

3.4.3 Constraints

The main constraints to the growth of PSP in integrated area development real estate complexes are the high cost of private sector provision of water and other public services.

The main constraint to the growth of commercial PSP in industrial estate complexes is the competition of PT SIER and the permission-granting process.

3.5 Single Function Commercial

3.5.1 Experience

Market

Since Surabaya's PD Pasar became a Perusahaan Daerah in 1984, they have not had significant work with the private sector in upgrading or establishing new marketplaces. During the time PD Pasar was a Dinas, they worked with the private sector in the upgrading of two marketplaces under a 7-year BOT scheme (the 7 years are now past). PD Pasar had a plan for working with the private sector for upgrading Pasar Pabean, but it wasn't implemented. Considering that there are 81 marketplaces in Surabaya on Pemda land, it is an anomaly that Surabaya, which has been so active in involvement of PSP in other sectors, does not have significant current PSP involvement in upgrading and establishment of marketplaces.

Slaughterhouse

There are 5 slaughterhouses in Surabaya. All are owned by Pemda or the Navy with one exception: PT Abattoir Suryajaya is owned by Pemda DKI Jakarta, Pemda Surabaya, and PUSKUD. Although the commercial private sector has no role in ownership or management of the slaughterhouses, it is involved in supply of animals and distribution of value-added meat.

Passenger Terminal

Pemda is doing well in the terminal business in Surabaya through Dinas Terminal. The role for the private sector has been greatly limited: during the construction of the terminal at Purabaya, some parts of the terminal such as interior, landscaping, and the like, were done by a company in return for the right to handle promotion and advertising in the terminal.

In addition, a potential investor has been approached to consider investing in vehicle washing facilities and installing a dividing lane. In return, the potential investor can manage the vehicle washing facilities until his investment is recovered.

On-Street Parking. Dispenda reports that income from on-street parking has reached only 50% of its potential, of Rp 12 billion. Pemda collects all of the on-street parking fees in Surabaya at the present time.

3.5.2 Opportunities

Terminals. Now there are plans that the private sector will construct a market center on the old site of the Jembatan Merah market. In exchange, the company may be be expected to purchase new land in the north of Surabaya and build a new terminal to be turned over to Pemda.

Markets. Considering that PD Pasar used to work with the private sector, and there are about 80 marketplaces in Kodya Surabaya, there is great scope for involvement of the private sector in upgrading old marketplaces, building kiosks and selling them to merchants to use for a 2 year period, and in building new ones. Officers suggested a system where the PD Pasar gives the license for use of the markets and receives user fees. There has been little PSP in marketplaces for the last 9 years, and there must be a great deal of pent-up demand.

Slaughterhouse. PD RPH acknowledges that there is a need for infusion of commercial private sector capital to upgrade machinery and processing equipment, but there is no plan to attract this capital because PD RPH is all too aware of the commercial constraints such as lack of reliable supply of meat and the low demand for high-quality meat.

Passenger Terminal. Dinas Terminal has mentioned opportunities for private sector investment in washing facilities for terminal vehicles and in integrated development of shops and other commercial areas in terminals. The form of participation would have to be worked out. Both Bratang and Joyoboyo Terminals are in the city, so they have strong potential for the construction of shops.

On-street Parking. Because present collection of on-street parking has fallen so far short of its potential, Dispenda has suggested the possibility of cooperation with the private sector in this collection effort.

3.5.3 Constraints

The main constraints in the case of single function commercial PSP are the more general constraints such as lack of clear policy and guidelines for planning, tendering, and executing PSP projects. At the present time, almost every case of single function commercial PSP is handled as a special case requiring the full attention of the Walikota.

A possible constraint in the case of marketplaces is that in 1991 an SK of the Walikota established working teams to act as task forces for each market to be upgraded or established. The PD Pasar must work through these teams. It is not known if these teams were a response to other constraints during the period 1984, when PD Pasar was established, to 1991.

There probably are other constraints which were not identified which are preventing PSP in the upgrading and construction of marketplaces in Surabaya.

There appear to be no constraints to PSP in collection of on-street parking fees.

4. SUMMARY AND CONCLUSIONS

As a business town with an active and risk-taking Mayor, Surabaya provides an ideal climate for private sector activities which are initiated or approved at the local government level. Surabaya is an excellent location for a PSP pilot or demonstration project. Except for specific areas (marketplaces, PDAM meter reading), Surabaya has a comparatively high degree of PSP across sectors. Many of the forms of PSP appear to be tailor-made to Surabaya's unique characteristics and environment, and they may not work so well outside of Surabaya. But the fact of Surabaya's having accomplished so much with PSP shows local governments in other cities what is possible for them to do.

PSP FORM SUMMARY

SECTOR : WATER SUPPLY
SUB SECTOR :
CITY : SURABAYA

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO			o			
o. BOT	■					
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract				■		
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Raw Water Installation, Transmission, Reservoir
2 = Main Distribution
3 = Pipe Maintenance
4 = Bill Collection
5 = Meter Reading
6 = Administration & Management

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : SOLID WASTE MANAGEMENT
SUB SECTOR :
CITY : SURABAYA

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO			o			
o. BOT						
o. JVC		■				
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract			■	■		
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT	■		o	■		

Notes :

1 = Recycling
2 = Composting Installation
3 = Transportation
4 = Street Sweeping
5 =
6 =

■ = Present
o = Possible

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PSP FORM SUMMARY

SECTOR : HUMAN WASTE
SUB SECTOR :
CITY : SURABAYA

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO			■			
o. BOT						
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Off-site Treatment & Piping System
2 = On-site System
3 = Human Waste Disposal Truck
4 =
5 =
6 =

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : SINGLE FUNCTION COMMERCIAL
SUB SECTOR : SLAUGHTERHOUSE
CITY : SURABAYA

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO		o				
o. BOT	o					
o. JVC			■	■		
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Machine Cutting
2 = Cold Storage
3 = Livestock Supply and/or Fattening
4 = Market Distribution (Export Orientation)
5 =
6 =

■ = Present
o = Possible

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PSP FORM SUMMARY

SECTOR : SINGLE FUNCTION COMMERCIAL
SUB SECTOR : MARKET
CITY : SURABAYA

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO		■				
o. BOT	■					
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT	■					

Notes :

1 = Rehabilitation/upgrading Existing Building
2 = New Building Construction
3 = Management & Computerization
4 =
5 =
6 =

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : SINGLE FUNCTION COMMERCIAL
SUB SECTOR : (PASSENGER) TERMINAL
CITY : SURABAYA

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO						
o. BOT						
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract				o	■	
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Rehabilitation/upgrading Existing Building
2 = New Building Construction
3 = Management and Computerization
4 = Vehicle Washing Facilities
5 = Landscaping & Interior
6 =

■ = Present
o = Possible

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CITY PROFILE

KOTAMADYA SEMARANG

TABLE OF CONTENTS

1. BACKGROUND

1.1 City of Semarang

Semarang is rated administratively as a Level II city. It is the capital of the province of Central Java (total provincial population 27 million).

Semarang covers an area of 373,668 hectares, and consists of 9 sub-districts totalling 177 villages (kelurahan). The lowest point in Semarang is at 0.75 m, and the highest 35 m above sea level. The 1990 census reports Semarang's population to be 1,249,230. The average population density is 2,995 persons/km^2, with Central Semarang sub-district the most densely populated at 21,049 persons/km^2.

Population growth is presently about 2% per year, and a strong continuing preference for urbanization is anticipated for the future.

The growth of the city's labor force is relatively high, but the quality of this work force is limited.

The income level and distribution of income are both low and limited.

In Semarang development has to date been concentrated on the city center and has not spread to other nearby regions. This has resulted in a deterioration of the quality of the local environment, security and traffic systems and general discipline.

1.2 Local Government (Pemda)

a. Pemda is not capable of meeting the present needs of development in the region, in terms of quality of service but also in number of persons required and the skills they should possess.

b. There is a lack of consistency and continuity in development and upgrading of management skills, particularly in face of the increase in tasks and functions related to Pemda activities in the development sector.

c. There is no consistent coordinating system between the various sectors and programs involved in development in Semarang. This includes lack of integration in areas of planning, implementation and management.

1.3 Location

Semarang is located on a major transportation route between Jakarta and Surabaya and acts as a gateway for trade between those two cities. It also serves as the center for trade and transportation for Central Java.

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1.4 City Statistics

a. The city's main function is to act as the center for administration, business, industry, communication and education for the province of Central Java.

b. Regional Own Income (PADS) is Rp. 22,436,653,000.

c. This Regional Own Income has recently increased at the rate of about 13% per year.

d. Recipients of city services as percentage of the population:
Water supply - 20% of the city population
Solid waste collection/disposal- 60% of the city population.

2. PSP ACTIVITIES OVERVIEW

The fifth five-year development plan (Pelita V) directs municipalities to utilize any and all resources in order to realize local development potential. Whereas in former years this would have been handled strictly by the government, Pelita V specifically required increased private sector input.

Pemda at present involves the private sector in many aspects of provision of local services, such as water supply, wastewater and sanitation, solid waste management, parking, markets, warehouses, slaughterhouses, etc.

There is presently limited investment initiative from the private sector in local services. PSP is seen in service and supply only for projects designed, supervised and funded by Pemda.

Meetings or discussions have not yet been held between Pemda and the private sector (represented by Kadin) regarding extended PSP activities in Semarang, nor have invitations or opportunities been forthcoming from Pemda to encourage private participation in development activities.

3. SECTOR ANALYSIS

3.1 Water Supply

3.1.1 Experience

There is no private sector involvement in water supply in Semarang. All operational activity is carried out by the Regional Government Water Enterprise (PDAM Semarang). No related activity is handled through PSP initiative, such as bill collection (done by PDAM Surabaya) or meter reading (PDAM JAYA). There is cooperation planned for the future between PDAM

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Semarang and the private sector, and negotiations are being carried out with Indocu Matra Consortium (see "Opportunities" for more details).

Water supply is provided by PDAM Semarang to 90% of domestic households, but only to 10% of industry. A large part of the population uses groundwater since PDAM Semarang can only supply services to 38% of the total city population.

PDAM Semarang has not yet expanded its services to reach real estate developments on the outskirts of the city. Usually the developer provides a water system using artesian well water through an internal delivery system within the housing development.

3.1.2 Opportunities

PDAM Semarang feels a need to encourage private sector participation both because of its own lack of sufficient funds necessary to improve public services and because a directive to involve PSP has come down from the central Ministry of Public Works. Pursuant to this policy, at present a Memorandum of Understanding has been signed between PDAM Semarang and Indocu Matra Consortium, but the issue of what should be an equitable water tariff is not yet resolved.

A joint venture to provide private sector participation has been formed by Consortium P.T. Indocu Matra (domestic), North West Water, McDonald and Bovis International. This joint venture company (JVC) will take over the BOT system and concession agreement for a 20-year period. After the JVC is in operation, water supply will be divided between domestic (60%) and non-domestic (40%) consumption, and water supply per capita will rise from 38% at present to 70%. Priority in water distribution will be targeted to real estate developments and to Central and East Semarang. The JVC is responsible for installation, treatment and transmission of the water supply. PDAM is responsible for the ultimate distribution of the water.

3.1.3 Constraints

In general, the major constraints to PSP in water supply lie in the regulations and legal framework which constricts rather than encourages private sector initiative. This is true for all PDAM throughout the country.

3.2 Wastewater and Sanitation

3.2.1 Experience

Septic tank desludging is carried out by the private sector, using three out of four trucks which are provided for this purpose. This group must pay Pemda a concession fee of Rp. 275,000 per month. Industrial waste water must be treated by the factory itself and supervised by the Urban Development Coordination Team (TKP2 LH).

3.2.2 Opportunities and Constraints

Opportunities are open to the private sector to provide sanitation services to the newly-developed housing estates.

3.3 Solid Waste Management

3.3.1 Experience

The private sector's participation is limited to street sweeping and garbage collection on major roads only. All solid waste collected must be transported to the LPA (Permanent Disposal Site). No LPS (Temporary Disposal Sites) are used by the private sector in Semarang. Three private companies handle these activities in three city regions, covering about 54% of all Semarang's solid waste collection and disposal. By involving the private companies, solid waste is brought with greater frequency to the LPA, resulting in a decrease in the operational and labor costs that would have been incurred by the DKP (Department of Sanitation) itself.

Investment by the private sector is provided by P.T. Tri Utama Jinawi, which has established a compost installation at the LPA in Jatibarang (44.5 ha.) and at the LPA in Kedung Mundur (1.5 ha.). It presently has a production capacity of 250 m3/day, part of which is used for worm food. The worms are in turn used to feed prawns.

3.3.2 Opportunities and Constraints

Private companies involved in solid waste disposal in Semarang do so using their own funds and receive system user fees directly from the individual household. The level of the fee is determined by Pemda. Private sector participation is no longer based on contracts from the DKP which require payments from the private sector to the DKP.

This new system of delivery and payment will be carried out initially in the new real estate developments. This system is still at the planning stage with Pemda and has not yet been implemented through the private sector. Solid waste from the industrial sector is brought from the LPS to the LPA by the DKP, but liquid waste must be treated by the factory at the investor's own expense.

Development in some aspects of this sector is not constrained by excessive rules and regulations, for instance in development of composting installations, the only requirement is cooperation with the DKP/Pemda. However, any plans from the private sector to handle complete solid waste collection and treatment (from household to LPS and LPA) still run up against the system of having all tariffs and fees set by PERDA (local regulations) and must first be agreed upon by the local Regional Legislative Body.

3.4 Integrated Area Development

The are approximately 30 real estate developers in the Semarang area, at present controlling a total area of around 2,000 ha. The largest individual developer is Bukit Kencana Jaya, which controls 520 ha. Almost all the houses in the new housing estates are sold using the Houseowner's Credit Scheme (KPR).

To date no privately-developed housing estates have been handed over to Pemda for future infrastructure management and maintenance. This handover is stipulated in government decree no. 1/1987, "Handover of Housing Infrastructure".

The housing market is not as big as that of other major cities in Indonesia. Semarang's role and function in integrated area development is not yet clearly defined, which influences the city's economic activities, including housing development, infrastructure and local development facilities. However, Pemda has been sufficiently active in planning the improvement and development of these isolated real estate development areas through the provision of roads, electricity supply, water supply, sanitation, etc. It is still unpredictable, however, whether these plans will be implemented consistently.

By law, Pemda should assume responsibility and accept handover of real estate developments when they are completed, however in practice they are reluctant to do so. Pemda feels they are not ready to manage or maintain these facilities. From the viewpoint of the developer, however, when he has reached 100% completion of the development, he is reluctant to retain responsibility for the area's environment and physical facilities and infrastructure.

The major technical constraints to integrated development in Semarang are as follows:

1) There is no electricity supply for any of the new housing regions from the State Electricity Company (PLN). This is the case no matter how little electricity is required.

2) As yet there is no coordinated city planning.

3) Infrastructure for development is not yet in place.

3.5 Commercial Facilities

3.5.1 Slaughterhouses

All slaughterhouses (RPH) in Semarang are operated by the local state slaughterhouse (PD RPH), which is in turn owned by Pemda. To date there has been no PSP in terms of investment in these activities and development of the RPH. There has also never been private ownership of a RPH in Semarang.

There is an opportunity for the private sector to build, equip and manage RPH facilities on Pemda's behalf for a set period of time, using the BOT system. The other possibility is in the private sector joining PD RPH in a joint venture, but in this case return on investment would

take too long. There has been considerable interest from the private sector in slaughterhouse development, but only in supplying the livestock, fattening the stock, etc., and not in RPH management.

Constraints to development of private sector participation in development of slaughterhouses include a lack of regulations necessary to control distribution of meat from the RPH to the consumer; and that meat products from the RPH that are suitable for the export market (thereby gaining more profit) cannot contain any intestines or other internal organs, due to market preference.

3.5.2 Other Facilities

Market

In Semarang there are 40 traditional markets, both large and small. There are as yet no basic regulations governing cooperation between the private sector and Pemda on market development.

What does exist at present is an agreement between Pemda (signed by the Mayor, or Walikota) and private developers, confirming that:

a. Pemda provides the land for market development, and the private developer provides the investment for construction. After all the kiosks have been completed and sold, the developer hands over all buildings and assets to Pemda.

b. Pemda provides the land, and investment, development and construction are completed by the private developer. After completion of the project, the developer manages the market and collects the user fees, of which a set percentage is returned to Pemda, for an agreed period of time (perhaps 20 years). After this period all buildings, assets and management of same revert to ownership of Pemda Semarang.

Parking

On street parking is handled by P.T. Yadora (a sports-oriented foundation), and developers construct and manage parking on their own complexes, as for instance, multi-storey parking ~~on~~ 2 arcades.

PSP FORM SUMMARY

SECTOR : WATER SUPPLY
SUB SECTOR :
CITY : SEMARANG

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO						
o. BOT	o					
o. JVC	■	■				
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Raw Water Installation and/or Water Treatment/Reservoir
2 = Main Distribution System
3 = Pipe Maintenance
4 = Bill Collection
5 = Meter Reading
6 = Administration & Management

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : WASTE WATER/HUMAN WASTE
SUB SECTOR :
CITY : SEMARANG

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO		■	■			
o. BOT						
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Off-site Treatment and/or Main Pipe System
2 = On-site Treatment
3 = Human Waste Disposal Truck
4 =
5 =
6 =

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : SOLID WASTE
SUB SECTOR :
CITY : SEMARANG

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO		■	o	o		
o. BOT	o					
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						■
o. Management Contract						
o. Service Contract			■	■		
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT	■		■	■		

Notes :

1 = Recycling Process/Treatment
2 = Composting Installation
3 = Collection/Transportation
4 = Street Sweeping
5 = Bill Collection
6 = Landscaping/Gardening

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : SINGLE FUNCTION COMMERCIAL
SUB SECTOR : SLAUGHTERHOUSE
CITY : SEMARANG

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO						
o. BOT		■				
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT			■			

Notes :

1 = Machinery Slaughtering
2 = Frozen Meat (cold storage) Facility
3 = Livestock Supply and/or Fattening
4 = Market Distribution (Export Oriented)
5 =
6 =

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : SINGLE FUNCTION COMMERCIAL
SUB SECTOR : PARKING
CITY : SEMARANG

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO	■					
o. BOT	o					
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract			■			
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Multi Story Parking Arcade (New Construction)
2 = Improvement Existing Parking Lots & Management
3 = On-street parking
4 =
5 =
6 =

■ = Present
o = Possible

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PSP FORM SUMMARY

SECTOR : SINGLE FUNCTION COMMERCIAL
SUB SECTOR : MARKET
CITY : SEMARANG

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO		■				
o. BOT	■	■				
o. JVC		o				
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract			o			
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT	■					

Notes :

1 = Rehabilitation and Upgrading of the Existing Building
2 = New Building Construction
3 = Management and Computerization
4 =
5 =
6 =

■ = Present
o = Possible

CITY PROFILE

KOTAMADYA UJUNG PANDANG

TABLE OF CONTENTS

1. BACKGROUND

Ujung Pandang is a Kotamadya Tingkat II, or Level II city as determined by the central government. It is the capital of the province of South Sulawesi and is also the designated center for development initiative in that province.

Ujung Pandang serves as the gateway to Eastern Indonesia both because of its key geographic location and its port and airport facilities. Most east-west traffic stops here, making it a central transit area.

The city covers 17,577 ha. and consists of 11 sub-districts, broken down into 62 villages. The average population growth per year is 2.06%, and the present population is approximately 900,000. Ujung Pandang also serves the greater provincial area as a shipping and trans-shipping terminal for agricultural and industrial products from the province.

2. PSP ACTIVITIES OVERVIEW

In general private sector participation in Ujung Pandang's urban services (in terms of investment) is limited. The private sector is involved to some degree in solid waste management, markets, public transportation and housing.

The potential for cooperation between the local government (Pemda) and the private sector is sufficiently large, but a lack of planning and absence of detailed regulations covering such cooperation is slowing development.

There are several other major constraints to cooperation between Pemda and the private sector, including Pemda's own bureaucracy and the lack of coordination between different related government departments. There are also difficulties experienced in getting Pemda permission for new initiatives.

From the point of view of the private sector, Pemda is not yet receptive to opportunities for projects that could be implemented jointly. In addition to and perhaps because of this, discussions or other communication between Pemda and other organizations, such as with the heads of provincial offices (Kadin) are non-existent.

3. SECTOR ANALYSIS

3.1 Water Supply

3.1.1 Experience

PDAM Tirta Dharma in Ujung Pandang has never worked together with the private sector. Recently it was proposed to delegate bill collection for water supply to KUD (the Village Cooperation Unit), with payment guaranteed by Bank Bukopin. Under this guarantee Bank Bukopin will pay PDAM the total user's fees due at the end of each billing period, regardless

of whether or not the KUD was able to exact full payment from each customer. In this way it is anticipated fee collection efficiency will be raised to 95%. It is also planned to have meter reading activities carried out by the KUD, however the employees involved must first be trained to do this.

3.1.2 Opportunities

In new housing developments, the developer is allowed to install a piped water supply system, but this must meet with PDAM technical specifications. PDAM Tirta Dharma has not yet considered private sector involvement and investment in water treatment or provision of fresh water from wells or other sources in the area surrounding Ujung Pandang.

3.1.3 Constraints

PDAM does not feel there are problems with PSP in water supply, as to date there has been no interest from private investors in participating in this sector.

There have been several instances where developers of new housing estates have installed water supply systems using pipes which are below PDAM's quality standards. This was done to lower project costs and increase profit.

3.2 Wastewater and Sanitation

3.2.1 Experience

Wastewater disposal is handled by the Department of Public Works (Dinas PU) of the city of Ujung Pandang. There is no participation from the private sector. The city does not yet have a sewerage system. Pemda owns and operates 7 trucks for desludging and human waste removal. Septic tank desludging is also carried out by the Navy and Pertamina (the state oil company) both on a private basis and as a public service.

3.2.2 Opportunities and Constraints

There is potential for cooperation between Pemda and the private sector in sanitation.

By becoming involved in public education and information on sanitation, the private sector can help increase the role of the general population in this area.

Dinas PU plans to have the private sector assist in wastewater management using the city's integrated wastewater system. At present wastewater disposal is managed by Dinas PU's Technical Sanitation Section (Seksi Teknik Penyehatan).

Human waste disposal is handled by the Dinas Kebersihan, and as this is not a Regional Enterprise (as designated by the central government) the private sector is not eligible to invest in this sector.

3.3 Solid Waste Management

3.3.1 Experience

There is already some participation from the private sector in garbage disposal, but this could be improved. The public is involved through the Community Defense Organization (LKMD) which collects user fees and forwards them to Bank Pembangunan Daerah in Ujung Pandang. Some private companies and organizations, including PT Haji Kalla, Bank Niaga, BRI, etc., assist the city by providing necessary equipment, masks, work clothing, helmets, and garbage containers.

3.3.2 Opportunities and Constraints

Dinas PU plans to involve the private sector in garbage removal by allocating services to specific regions and areas of the city (similar to PT SOR in Jakarta).

There do not appear to be excessive rules and regulations concerning PSP in solid waste management, therefore this is not viewed as a constraint to developing this sector.

3.4 Integrated Area Development

3.4.1 Experience

In Ujung Pandang real estate development, particularly in new areas, is the most prominent private sector activity. Real estate developers have formed their own organization, REI, with 38 members. These developers include those involved in commercial facilities, hotels, etc., as well as private housing. Water supply needs are met by the home-owners themselves, with most of the new housing estates located on the outskirts of the city.

3.4.2 Opportunities and Constraints

Pemda should plan a road network to serve the new housing developments, with the developers responsible for the new road construction. Pemda has not yet addressed this initiative on the part of the developers.

A constraint to integrated area development is that the developers have not yet handed over completed housing developments to Pemda for future infrastructure management and maintenance as stipulated in Permendagri 1/1987.

The private sector would like Pemda to be more receptive to plans for their participation in urban services, and also to be more consistent and clear in implementing the present policy on private sector participation. No opportunities have been made for discussion and consultation between Pemda and the private sector on possibilities for future cooperation.

Initiatives directed towards influencing Pemda policy are usually only successful if they are made by senior local government officers (such as the SEKWILDA, or Regional Government Secretary, or the Walikota/mayor). Once such initiatives have been made, their subordinates will usually act quickly to carry out the new program.
The major constraint towards improved cooperation between Pemda and the private sector lies in the lack of regulations specifically covering this matter. In addition, there is a perception on the part of the local government that increased private sector participation would result in a decrease in or even cessation of certain specific government activities.

3.5 Commercial Facilities

3.5.1 Experience

On-street parking fees are collected by the private sector following the format set out by Perda, or regional legislation. Pemda has had to change the designated agency managing parking fee collection four times, due to mis-management and an inability on the part of the agency to reach fee targets set by Pemda.

The final change brought in Yayasan Purnawirawan Polda (Police Veteran's Foundation) and all parking attendants in Ujung Pandang are now former policemen.

There is a plan to involve the private sector in cargo terminal and warehouse management.

The Central Market, Ujung Pandang's largest, is presently being renovated and upgraded by the private sector under a 25-year management agreement. Pemda will collect the market user fees from merchants and lessees on a monthly basis. The mayor has formulated a policy to privatize all other markets in Ujung Pandang in the future.

A slaughterhouse for pigs has been operated by the private sector on a 5-year service contract. This slaughterhouse was built in 1984 by private funds.

3.5.2 Opportunities and Constraints

The private sector is interested in building new markets on private land, but since there are no existing regulations concerning such initiative, they must be satisfied with renovating existing Inpres markets.

There has not yet been any interest from the private sector in developing or managing terminals.

There have been no attempts to bridge the gap between Pemda and the private sector. This could be handled through BAPPEDA (Regional Development Planning Agency), which would consult directly with the mayor and form a Research Committee made up of representatives from relevant agencies. The private sector desires an improved relationship with Pemda, in accordance with the central government directive for full regional autonomy (UU 5/1975). This concept of decentralization is not followed by Pemda Ujung Pandang, which still looks to the wishes of the central government in making policy.

PSP FORM SUMMARY

SECTOR : WATER SUPPLY
SUB SECTOR :
CITY : UJUNG PANDANG

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO						
o. BOT						
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract				o	o	
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT	■					

Notes :

1 = Raw Water Installation (Intake), Transmission, Reservoir/Water Tank
2 = Main Pipe Distribution
3 = Pipe Maintenance
4 = Bill Collection
5 = Meter Reading
6 = Administration & Management

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : SOLID WASTE
SUB SECTOR :
CITY : UJUNG PANDANG

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO						
o. BOT						
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT	■				■	■

Notes :

1 = Recycling Process/Installment
2 = Composting Installation
3 = Transportation/Collection
4 = Street Sweeping
5 = Landscaping & Gardening
6 = Bill Collection

■ = Present
o = Possible

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PSP FORM SUMMARY

SECTOR : WASTE WATER/HUMAN DISPOSAL
SUB SECTOR :
CITY : UJUNG PANDANG

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO			■			
o. BOT						
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Off-site Treatment Installation and/or Piping System
2 = On-site Treatment/Facilities
3 = Human Waste Disposal Truck
4 =
5 =
6 =

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : SINGLE FUNCTION COMMERCIAL
SUB SECTOR : SLAUGHTERHOUSE
CITY : UJUNG PANDANG

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO			■		■	
o. BOT					o	
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. . Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Machinery Slaughtering
2 = Cold Storage/Frozen Meat Facilities
3 = Livestock Supply and/or Fattening
4 = Market Distribution (Export Oriented)
5 = Slaughter fee
6 =

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : SINGLE FUNCTION COMMERCIAL
SUB SECTOR : MARKET
CITY : UJUNG PANDANG

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO	o	o				
o. BOT	■	o				
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract						
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Rehabilitation/upgrading
2 = New Building Contruction
3 = Management & Computerization
4 =
5 =
6 =

■ = Present
o = Possible

PSP FORM SUMMARY

SECTOR : SINGLE FUNCTION COMMERCIAL
SUB SECTOR : PARKING
CITY : UJUNG PANDANG

Type of PSP	1	2	3	4	5	6
CAPITAL INTENSIVE						
o. BOO						
o. BOT						
o. JVC						
NON CAPITAL INTENSIVE						
o. Lease Contract						
o. Management Contract						
o. Service Contract			■			
COMMUNITY BASED/PARTI-SIPASI MASYARAKAT						

Notes :

1 = Multy Storey Parking Area
2 =
3 = Bill Collection
4 =
5 =
6 =

■ = Present
o = Possible

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APPENDIX E

Types of Private-Sector Participation Experiences Worldwide

Appendix E

TYPES OF PRIVATE-SECTOR PARTICIPATION EXPERIENCES WORLDWIDE

1. Background

Private-sector participation in urban services takes place in many forms and models. Since the mid-1980s more focus has been placed on using private-sector resources, management, and capital, to support infrastructure investment. The recent sprint for growth in Asia's and to some extent Latin America's newly industrializing economies (NIEs) during the 1980s has revealed an overloaded and inadequate public infrastructure.

The need for new and replacement infrastructure is reaching crisis proportions, What lies behind this crisis is the requirement for the public sector to provide the basic infrastructure needed to underwrite a continuation of the economic progress that a number of regional countries have enjoyed as a result of a huge surge in domestic and foreign investment. This current investment, however, has mainly concentrated on manufacturing and service industries —a big area of private-public activity. But public infrastructure is a different matter and has been slow to attract domestic and foreign private investment.

2. BOTs and BOOs

Build, operate, and transfer (BOT) and build, operate, and own (BOO) arrangements, as currently organized and funded, are fairly recent innovations in financing traditional public-sector infrastructure.[1] With both BOTs and BOOs, private interests build and operate projects from scratch. In fact build is the operative word. With BOTs, however, assets are transferred to the public authority after a specified contract period and, under the latter, assets remain with the private-sector entity.

So far the BOT principle has not made much headway in Asia, although a number of schemes currently in development could make the concept more popular if they succeed. For infrastructure as a whole, one of the most important schemes is the Hub River thermal power-station in Pakistan. Construction of the $1.6 billion project was begun in September by a group of European, American, and Japanese firms, plus one from Saudi Arabia. The private sector has considerable equity financing responsibility in the scheme and will build and operate the power station for an interim period, selling power to Pakistan's national grid. Other successful, though smaller, BOT-type infrastructure projects in Asia include the Navotas gas-

[1]Some economic historians argue that large infrastructure development projects developed during the colonial era, such as the Suez Canal, displayed the main elements of BOTs in terms of private-sector financing and public-private risk sharing.

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turbine power station in the Philippines and power plants in southern China's Shenzhen Special Economic Zone.

Likewise there are few examples of successful BOTs and BOOs in the water supply sector. The most notable successes, however, have been in Asia. Up to three successful BOTs have been arranged in Malaysia. These include sites at IPOH, Sabah, and for the island of Labuan. The Umbulan Springs proposal for the development of a large spring and pipeline to Surabaya is a classic BOT arrangement. To date almost all the investment in water supply BOTs have focused to source development and treatment systems, not distribution systems. All include the element of "take-or-pay" where the purchaser, in most cases the municipality, assumes most of the commercial risk. The construction risk is usually borne by the BOT company.

One of the largest attempts at privatized construction of municipal-owned drinking water systems is in Sydney, Australia. The local water board of Sydney is evaluating proposals with five international consortia for four filtration plants. The successful bidder(s) will finance, build, own, and operate the plants, then transfer them to the board after 25 years.

A BOT for wastewater treatment and reuse by industries has been successfully implemented in Vallejo, Mexico. The system rehabilitation was totally financed by the private sector which is the main user of the plant. The local government only provided the distribution system linking the industries to the treatment plant.

BOTs and BOOs are highly innovative and highly complex schemes. The more successful BOTs that emerge and can serve as models for other attempts, the faster this type of financing can serve as a conduit for private-sector investment. The principles need to be refined through experience and this will take time. Efforts to negotiate BOTs and BOOs have been plagued by regulatory and legal obstacles and the lack of guarantees for private investors. These schemes will represent an important source of private finance in the future but in the short term the impact of BOT-type schemes could be relatively small in relation to the gap in needed infrastructure.

3. Concessions

Concessions are more comprehensive than BOTs/BOOs. Concessions involve elements of BOTs/BOOs in terms of extension of existing systems but are more comprehensive in that they include the complete operational and financial responsibility of the existing system. The concessionaire has wide-ranging control over the operation and financing of the water supply and wastewater system. BOTs and BOOs can be considered a type or subset of concessions.

Concessions are fairly common in France and Spain where there is a long tradition of operating water utilities through concession arrangements. A type of concession arrangement most common in the United states is franchising. Franchises are very similar to concessions but arrangements are in perpetuity, given satisfactory performance by the operator.

The most exciting development in concession operation and financing for water supply is currently under negotiation in Buenos Aires, Argentina. The entire city's water supply for over 10 million people will be turned over to a concession arrangement led by one of three separate bidders, consortia of various European water supply companies from France, the United

Kingdom, Spain, and Venezuela. Several local companies are also part of these consortia. Government officials took these steps to involve the private sector because the current public-sector authorities were not able to cope with increased demand on the system. Issues being dealt with within the private-sector arrangement include eliminating overstaffing and other inefficiencies. The number of water supply authorities' employees are expected to drop over 30 percent from 9,000 to just over 6,000.

A concession for urban water supply services in Cote d'Ivoire was recently arranged following 25 years of experience with lease contracts. Under this arrangement, the current operating company, SODECI, is responsible for all new investments in urban water supply in the country. The company now receives no operating subsidies and all new investments are totally self-financed.

4. Lease Contracts

Lease contracts for water supply are most highly developed in France. This type of contract is often referred to as "affermage." It follows that most experience of these types of contracting arrangements occur in developing countries that have been closely influenced by France. As discussed above, the water company in Cote d'Ivoire operated under a lease contract before converting to a concession-type arrangement. A lease contract for water supply was introduced in Guinea three years ago with support from the World Bank. The operating company is a mixed enterprise owned by two French water companies and the Government of Guinea. The private-sector operating company has meet with some success. For example, collection efficiency has improved 20 to 70 percent.

5. Management, Service, and Technical Assistance Contracts

Management, service, and technical assistance contracts with companies and private individuals are the most common form of private-sector participation in the sector. Technical assistance contracts refer mainly to consulting contracts.

A recent renewable management contract for electricity and water supply services in Guinea Bissau followed a two-year technical assistance contract with Electricité de France (EDF), a French public enterprise. The French bilateral aid ministry supplies 80 percent of EDF's fees that it earned under the TA contract, while the additional compensation is paid from the water companies' profits, up to 30 percent of the previous fee. This incentive means the private company may earn up to 110 percent of former levels.

Management contracts are most useful as "half-way houses" or mechanisms where private-sector operators can understand the operational and financial problems before committing to more comprehensive arrangements. This is how longer term contracts have developed in France, where contracts have tended to become longer and more extensive over time.

Service contracts and very short-term technical assistance contracts are the most common forms of private-sector participation. These types of contracts may be used in tandem with more comprehensive types of private-sector participation. A classic example of successful contracting within the water sector is in Santiago, Chile. In 1971 the public water company

of Santiago encouraged some of its employees to leave the company and form private firms that would bid for a variety of service contracts. These included contracts for meter reading, billing, and service. Currently the water company has one of the highest staff productivity rates among Latin American water utility companies.

6. Conclusion

Currently there is considerable activity in promoting new ways for the private sector to become involved in water and wastewater services. These endeavors are in their formative stage, which is reflected in limited progress made in attracting private investment, particularly equity financing, through concession and BOTs. Management contracts and short-term leasing contracts that incorporate performance incentives may be useful as initial steps toward more active private participation.

APPENDIX F

List of Private Companies

LIST OF PRIVATE COMPANIES (not a complete list)
City of Surabaya

Sectors	Activities	Company Name	Comments
Water Supply	Headworks facilities	Trans Bakrie (Transfield Australia/ Bakrie Group)	Negotiation undergoing on detail design, construction and operation and maintenance
Water Supply	Bill Collection	15 private Companies	Started in 1969, and selected by competitive bidding
Solid Waste	Street Sweeping	24 private companies (i.e: PT Kencana Wungu, PT Technokrat)	3 months contracting period, direct appointment/no competitive bidding
Solid Waste	LPS to LPA transportation	6 private companies (i.e: CV Triguna Jaya)	3 months contracting period, direct appointment/no competitive bidding
Sanitation/ Sewerage	Septic Tank Desludging	10 private companies	Almost totally served by private No formal agreement given, but technically certified by DKP
Slaughterhouse	Cutting/Fattening/Marketing	PT Surya Jaya	Consortium of PT Induk Agrindo Perkasa, INKUD, and Carlton Hill
Market	New Building Construction	PT Sinar Galaxy	30 years concession period for Pasar Dupak Rukun
		PT	Surabaya Mall, land owned by Pemda
		PT	Tunjungan Plaza, land owned by Pemda
		PT Sasanaboga	Taman Hiburan Rakyat, initiated in 1989, 30 years concession period
	Rehabilitation	PT Abadi Purnama	Pasar Tambakrejo
Passenger Terminal	Interior/Landscaping	PT Greenville	Purabaya terminal. Private company has the rights to manage all promotion and advertisement inside the terminal area
Town Gardening/ Landscaping	Building open space, park, and street median and maintenance	various private companies	Operation agreement, of which investor has the rights to install their advertisement on a certain period

LIST OF PRIVATE COMPANIES (not a complete list)
City of Semarang

Sectors	Activities	Company Name	Comments
Water Supply	Headworks and Distribution	JVC (Indocu Matra/ PDAM)	Negotiation undergoing on JVC, Concession, and Bulk Water Sales Agreements
Solid Waste	Street Sweeping and LPS to LPA transportation	3 private companies	
	Composting Process	PT Tri Utama Jinawi	LPA management activity, yearly contract by direct appointment
Sanitation/ Sewerage	Septic Tank Desludging	4 private companies	Totally served by private firms No formal agreement given, but technically certified by DKP *)
Slaughterhouse	Cold Storage facility	PT Sigma	No cossession agreement, but investor has the rights to distribute meat and Pemda collects fees for each cattle slaughtered
Market	Rehabilitation	No data available	Joint operation on 6 market, including Pasar Johar/Yaik. Land owned by Pemda, and built by investor under 20 years concession period
Parking	Multi Storey	No data available	Located in Pasar Johar, built by investor then handed over to Pemda; investor received replacement of ex-Terboyo terminal
	Bill Collection	PT Yadora (Yayasan Dana Olahraga/KONI) **)	Took effect since February 1992 with 3 years contract period.
Town Gardening/ Landscaping	Building open space, park, and street median and maintenance	various private companies	Operation agreement, of which investor has the rights to install their advertisement on a certain period basis.

*) = *Dinas Kebersihan & Peternakan (Cleansing & Landscaping Agency)*

**) = *A foundation of the National Committee on Sport Affairs (Semi Government Body)*

LIST OF PRIVATE COMPANIES (not a complete list)
City of Yogyakarta

Sectors	Activities	Company Name	Comments
Solid Waste	Street Sweeping	3 private companies	Direct appointment, and only covers 5% of total street length in Yogya, and 40% is under DKP responsibility. The others, 55% is managed by masyarakat
Sanitation/ Sewerage	Septic Tank Desludging	PT Chandra Kirana	Totally served by private firms using their 4 trucks. No formal agreement given by Pemda, based on license
Market/Commercial area-	Market Upgrading/Rehabilitation	PT Cakrawala Gupala Asri	Pasar Beringharjo, with 20 years concession period
		PT Sinar Waluyo	Sasana Triguna shoping center, owned by Pemda and managed by private firms for 15 years
		PT Ganesha Dwipayana Bhakti	Pura Wisata entertaintment facility, land owned by Pemda. 16 years concession period
Solid Waste	Open space and park (landscaping)	various private companies	Enclave or as a complement of main private activities or with advertisement compensation. Total investment is about Rp 100 Million at 11 different locations

LIST OF PRIVATE COMPANIES (not a complete list)
City of Pontianak

Sectors	Activities	Company Name	Comments
Integrated Area Dev't.	Commercial Complex	PT. Kita Maju Mandiri	At Martapura and Barito areas. Total area is about 38 ha. Not fully operated
Single Function commercial	Market Rehabilitation	No data available	Non-INPRES pasars, i.e. Pasar dunia Baru, Pasar Puring, Pasar Mawar/sentral. BOT 20 years period.
	New Terminal construction	No data available	Terminal Batulayang. Terminal built by private sector and handed over to Pemda. Private sector has rights to manage shopping area around the terminal.
	Slaughterhouse (cutting services)	PT. Penta Graha Mustika	5 years management contract.
	Livestock and Fattening	PT. Bajong Permai	Export oriented (to Singapore)

LIST OF PRIVATE COMPANIES (not a complete list)
City of Medan

Sectors	Activities	Company Name	Comments
Single Function Commercial	Management of Industrial Estate Area of Medan City	PT. KIM (Kawasan Industri Medan)	BUMN (National-Government Enterprise)
	Management of Industrial Estate Zone	PT. LAMHOTMA	
Single Function Commercial	Management of Bus Terminal	PD. Pembangunan Kotamadya Medan	BUMD (Regional - Government Enterprise)
Single Function Commercial	Parking space building management	PT. Brahma Debang Kencana PT. Deli Plaza	located at Kawasan Business Complex
Solid Waste	Composting Bill Collection	PT. Jaya Tani PT. Multi Jasa	

LIST OF PRIVATE COMPANIES (not a complete list)
City of Ujung Pandang

Sectors	Activities	Company Name	Comments
Single Function Commercial	Slaughterhouse and fattening	PT. Bukaka Meat	
Solid Waste	Collection of garbage and user fee	LKMD	
Integrated Area Development	Industrial Estate Management	PT. KIMA (Kawasan-Industri Makasar)	BUMN (National-Government Enterprise)

LIST OF PRIVATE COMPANIES (not a complete list)
City of Bandung

Sectors	Activities	Company Name	Comments
Solid Waste	Bill Collection	KUD (Koperasi Unit Desa)	Operated succesfully. Plans to extent service to all Bandung area (adds payment points).
Single Function commercial	New Market construction	PT. Hasan Saputra (Gedebage) KOPPAS Bandung (Caringin)	Two grocery markets. BOT scheme under 30 year concession period.
	Market Rehabilitation	PT. UNICO and other private companies	BOT scheme, land owned by Pemda.
	Multi storey Parking	KOPANTI	Located at Banceny, but not too successful.

LIST OF PRIVATE COMPANIES (not a complete list)
Kabupaten & Kotip Bekasi

Sectors	Activities	Company Name	Comments
Parking	Management of parking space at Plaza Bekasi Jaya	Bekasi Jaya Plaza	
	Management of parking at Ramayana Bazaar Bekasi	Ramayana Bazaar	
	Management of parking at Pratama Plaza Bekasi	PT. Cipta Pradana Pratama	
	Collection of parking fee at Borobudur Plaza	Borobudur Plaza	
Slaughterhouse	Chicken slaughtering	PT. Sapto Pati	
	Fattening	PT. Sadimun Berkah Abadi	located at Cikarang
		PT. Lembu Jantan	located at Kedung Waringin
	Holding ground	BULOG	located at Tambun
Market	Management of Sumber Arta Market at West Bekasi	PT. Sumber Arta	

APPENDIX G

Supplementary Survey

WASH Field Report No.387

SURVEY OF PRIVATE-SECTOR PARTICIPATION IN SELECTED CITIES IN INDONESIA

Additional Work on
Monitoring Indicator Data Collection
for Semarang, Yogyakarta, Bandung, and Medan

Co-Sponsored by
USAID/Indonesia Office of Private Sector Enterprise Development,
Urban Policy Division (PED/UPD)
and
the PURSE Steering Committee,
composed of BAPPENAS, the Ministry of Home Affairs and
the Ministry of Public Works

by
Mohammad Maulana

Mid of 1993

Water and Sanitation for Health Project
Contract No. _____, Project No. _____
is sponsored by the Office of Health, Bureau for Research and Development
U.S Agency for International Development
Washington, DC 20523

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CHAPTER I

BACKGROUND

In line with the request by the USAID as a client and based on the Final Report (as presented on 27.1.93 to the Interdep. Steering Committee), it is decided to emphasize more sharpness towards the material on the 'monitoring indicator' activities performed by participation of the private sector in the respective towns covered. This survey is in conjunction with the WASH Field Report No. 387 which commenced on June 27, 1993 and terminated on July 32,1993. The major part of the work is performed in the field by way of visits made to the four cities covered (more details are given below).

1.1 Objective Scope of Survey

This survey consists of collecting data/information (being of a follow up intensification nature) on monitoring indicator material as stipulated in the Terms of Reference. The type of indicators collected will comprise services contract value indicators achieved to date by private sector. The sectors to be covered will include Water Supply, Sanitation and Solid Waste.

Locations to be surveyed comprise cities included in the previous PSP survey study. It is not necessary to pay visits to all the cities concerned, since not all of them are participated in significantly by private sector (See Annex A). It is suggested that reports be made on repeat visits to the four cities, i.e. Bandung, Semarang, Yogyakarta and Medan.

Altogether there are 8 monitoring indicator information activities offered to the private sectors to cover Water Supply, solid Waste and Sanitation. The current survey will serve to complement data previously collected and will include 4 cities, they are Semarang, Yogyakarta, Medan and Bandung. More details on the monitoring indicator data is described on Table 1 below.

1.2 Expected output.

In accordance with the Terms of Reference and discussion held, the Monitoring Indicator set up is organized as simple as possible, and will adequately reflect the intensity of the private sector participation in the respective cities covered.

Furthermore, the indicator setting may be used as a data base, capable of being updated each year. Therefore, apart from collecting data for the types of indicators , it is also necessary to define the methods for collecting indicator and their updating process (this is clarified further under a separate paragraph of this presentation).

As regards the latter part, additionally this survey also attempts to provide preliminary information on the involvement of the private sector in city development activities.

Table 1
Types of Monitoring Indicators Information as collected during the survey

Activities undertaken by private companies	Information gathered	Cities covered
Water Billing	Average collecting rates (% of total amount collected)	Bandung Medan
Garbage transport from LPS to LPA	Transport Fee (Rp/m^3 transported)	Semarang
Road cleaning	Service charge (Rp/m^3/month road cleaned)	Yogyakarta
Compost Processing	Compost production Value (Rp/m^3 Compost)	Semarang Medan
Sucking Septic Tank	Sucking service cost (Rp/call)	Semarang

1.3 Reporting systematic

Laporan hasil survai ini akan terdiri atas 4 bab, dilengkapi dengan bebrapa lampiran. Lebih rinci isi setiap bab adalah sebagai berikut:

- **Bab 1 - Latar Belakang,**
  Menguraikan tentang tujuan dan cakupan kegiatan survai kali ini, serta keluaran/hasil yang diharapkan. Ada dua hal utama yang menjadi cakupan kegiatan survai ini, pertama adalah penajaman informasi/data tentang indikator monitoring nilai investasi kegiatan sektor swasta di bidang air bersih, sanitasi, dan sampah; serta kedua, memberikan tinjauan atau rekomendasi awal mengenai rencana melembagakan sistim monitoring kegiatan swasta tersebut di daerah.

- **Bab 2 - Hasil Pengumpulan Informasi Tambahan Monitoring Indikator,**
  Secara rinci menjelaskan hasil data/informasi yang diperoleh untuk keempat kota yang diliput (lebih jelas jenis monitoring indikator yang dikumpulkan, lihat Tabel 1 kembali). Penyusunan informasi indikator ini, harus melalui suatu proses pengumpulan informasi penunjang dimana data selanjutnya informasi penunjang ini dijadikan dasar bagi penyusunan indikator monitoringnya.

- **Bab 3 - Kesimpulan atas hasil yang diperoleh,**
  Bab ini akan menguraikan tentang kesimpulan atas pengumpulan data/informasi monitoring indikator untuk seluruh kota (termasuk Surabaya). Secara umum, dibahas pula tentang adanya perbedaan besarnya nilai kegiatan operasional pihak swasta dihubungkan dengan standard/unit biaya yang dipakai di masing-masing kota.

- **Bab 4 - Rekomendasi Awal Terhadap Pengembangan Sistim Monitoring,**
  Akan berisi tentang kegiatan yang telah dilakukan saat ini yang menyangkut pencacatan investasi oleh sektor swasta dan kendala yang dihadapi. Secara umum, akan dibahas pula tentang beberapa masukan yang diperlukan untuk pengembangan sistim monitoring, langkah awal menuju penerapan sistim tersebut, dan tindak lanjut yang diperlukan oleh Pemerintah (Pusat) untuk memulai sistim monitoring kegiatan swasta di daerah.

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CHAPTER 2

ADDITIONAL MONITORING INDICATOR COLLECTED

2.1 Field Visit Schedule

The major part in collecting information on monitoring indicators includes fields visits to the four cities; i.e. Semarang, Yogyakarta, Medan and Bandung. The first visit will be to Semarang for 6 days, 28 June - 3 July 1993). Next to Yogyakarta (4 - 7 July 1992), Bandung (12 - 15 July 1993) and lastly to Medan (19 - 22 July 1993).

2.2 Semarang

Solid Waste transportation from the LPS to the LPA.

The private role within this component of activity has been taking place since early 1990. There were 3 firms assigned under a two yearly contract, divided into 3 regions of operation. The 3 companies were PT Jasa Mukti, PT Kinarya Abipraya and PT Telaga Mas, the services of which are limited to the public general service in the city areas. At present, their contract have entered the second period and sin 1992/93 PT Jasa Mukti has split into two companies, i.e. PT Artika and PT Jasa Mukti itself. The reason for the splitting was the inability to perform the assignment by itself.

All the companies described above have their assignments restricted to regions, that is, their duties include cleaning and collection of garbage originated from roads in their area of assignments as well as transporting the garbage from the LPS locations; they are moved to LPA sites in Jatibarang, Mijan district of 44,5 ha. In other words, the private companies responsibility is not limited to moving garbage, but also road cleaning/collection and transporting of garbage on roads within their responsibility. The following paragraph will attempt to determine the value of the private companies' activity by separating the two activity components above.
With a total of population of about 1.1 million under their service area (or 86.26 % of the Semarang population) and according to the latest data there is a total garbage production of some 3,215 m^3 each day, of which 2,900 m^3 or about 90,2 % could be moved. Of the amount transported, some 500 m^3 (17.24 %) was carried out by the City Cleaning Service (DKK), 2,115 m^3 (72.93%) by the community themselves by way of burning, dumped or buried and the remaining 285 m^3 or 9.83% was transported by the four companies [1]. Furthermore, of the total

[1] The private role in Semarang is not considered a chief alternative. The major role still relies on community participation (73%), this situation is obvious for cities of Yogyakarta, Bandung and Medan. This does not apply to Surabaya, where the greatest portion of garbage handling is in the hands of related agencies (80%) and increased private role (15%). The situation in Surabaya almost resemble the garbage handling in Jakarta (for South Jakarta, out of a 5.500 m3/day solid waste production, 77% is handled by the related agencies, 16% assigned to the private, and about 8% represents community participation - Suara Pembaharuan, 21 July 1993).

daily solid waste production, some 125 m^3 originated from industrial and other activities, of which 50% (about 25 m^3/day) were disposed of by the Industry themselves. Table 2 and 3 below explain the garbage composition and responsibility to handle/manage them.

Table 2
Composition of Garbage Production
Management responsibility, in Semarang

Source of Garbage	Dumped (m^3/day)	% above Total	Moved (m^3/day)	% Moved	Institutional
o. Residential	2.490	77,45	2.200		DKK/Community
o. Market	450	13,99	450	100,00	DKK
o. Shops	50	1,56	50	100,00	DKK
o. Offices	50	1,56	50	100,00	DKK
o. City Road	50	1,56	45	90,00	DKK/Private
o. Industry	50	1,56	50	100,00	DKK/Private
o. Others	75		---	---	
Total	3.215	100,00	2.900		

Source: Semarang Municipal, DKK, 1993

The process undertaken by the Local Administration (Pemda/DKK) in involving private business, based the current capability and capacity of DKK in responding to the increasing need for solid waste service (see Main Report, Wash Field Report no.387).In general, private companies involved in transporting garbage are those having prior experience in similar duties and later submitted their bids for joint undertaking with the local administration. Bid proposals are evaluated by the administration and financial comparison made based on the established regulation applied monthly. The type of cost under consideration are among others, cost for cleaning and transporting garbage for each km of road length with about 4 laborers, collecting cost for household garbage using transport carts, wages and an additional charge for service and taxes.which is respectively 10% of the operational cost.

In other words, the financial proposal the DKK will approve should be 10% (maximum) higher then the expenses disbursed by DKK when carrying out the job themselves. However, since the DKK has shortcomings in terms of personnel and facilities, the excessive cost will be compensated and should be cheaper then if the DKK is providing all facilities and infrastructure for the purpose.

As described above, the contract period for each company is 2 years, and later reevaluated by DKK each month based on the amount mutually agreed in the contract. For the garbage transportation from LPS to LPA, the rate is generally (averagely) Rp. 3,000 for each m^3 of companies) about Rp.285 m^3/day x 30 days x Rp. 3,000/m^3 = Rp.25,650,000, or in one year (365 working days[2]) will amount to about Rp.312,100,000.

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[2] Di dalam satu tahun, perusahaan tetap bekerja selama 365 hari, walaupun terdapat 12 hari libur Nasional dan sekitar 52 hari Minggu dalam satu tahun. Pelaksanaan pekerjaan dilakukan dengan cara penggiliran diantara pegawai perusahaan swasta tersebut.

Later, the road cleaning component, which cause the garbage to be transported, applying cleaning-units rate for each 5 m wide (2.50 m for pavement and 1 m for road body on both sides of the road, the cost of which is Rp. 1.50/m^2 road area cleaned (DKK Semarang Municipality uses the POMMS System on which the evaluation is based and henceforth adjusted to the local condition. The total length of roads in the Semarang city is about 1,010 km, consisting of 430 km main roads (artery, protocol and collector roads) as well as 580 m of residential/local road. The DKK is responsible for cleaning main roads only, of which some 390 km (90%) has been serviced. Out of the road length serviced, about 28.5 km (6.58%) is cleaned by the four private companies. Thus, in terms of the value of road cleaning by private companies under an average cleaning frequenct of 3 times a day, the result will be 28.500 m x 5 m x 3 shifts x Rp.1.50/m^2/shift/month x 12 months = Rp.7,7 million each year.

Furthermore, the amount and method for collecting retribution is regulated by Letter of Decision of the Semarang Mayor No.6/1993 (Old Regional regulation no.2/1988 has been superseded), stipulating the following :

o. The amount payable monthly by residents or non residents varies between Rp.500 to Rp. 2.500 (based on the old Regional Regulation).

Specifically, for residential garbage, collection is carried out by LKMD or the local RT/RW and brought to the nearest LPS and henceforth will be the responsibility of DKK to move them to the LPA. The number of LKMD and RT/RW officials (also called the 'yellow troops') at present is 6,510 people (some 3,000 of them are regular personnel under the local village authority). Compensation paid by DKK for their services takes the form of allowance of 60% of the total retribution collected and distributed through the local village office. For industrial activity in particular, the amount charged for retribution is determined by the Semarang Administration by applying the LPA rate of Rp. 2,500/m3. It is estimated that the amount for retribution originated from monthly fees inclusive retribution for large scale/industrial activities) is around Rp. 892 million (according to latest yearly data.

o. Method of charging the retribution is as follows.

a) For Traders in the markets, retribution is payable to the market chief, who will in turn transfer it to the City Administration.

b) For residents in particular, charging retribution is done in two ways:

- for residential subscribers of PDAM - garbage service retribution is done simultaneously with payment for water bills. The PDAM will receive a fee of 2% of the total collected retribution (determined by the Semarang Administration). Even though residents are subscribers to PDAM, only 40% of them are within the service area, nevertheless almost 100% garbage retribution are collected under the method;

- for those residents who has not yet/do not subscribe to city water (about 60% of them living in the garbage service area) the collection of monthly fees are done by LKMD or the local RT/RW and later transferred to the local administration. The collecting efficiency is estimated at about 50%;
- for major subscriber, sashes the industry, seaports, airports, collection is carried out by the local administration directly.

Table 3
Composition of Personnel and Existing Transportation Fleet
DKK Semarang Municipality

Operator	Moved (m^3/day)	Personnel	Fleet	Service value
o. LPS to LPA by DKK	2.590	634	59	2.836,05
o. LPS to LPA by Private	285	389	8	319,80
o. Direct transporting to LPA by the Industry	25	—	—	27,40

Source : Semarang DKK, 1993

Compost Production Process

At this moment there is only one single company, PT Tri Utama Jinawi henceforth called PT TUJ) those line of business is handling compost since the past 2 years under a contract with the local administration. The intake garbage capacity is about 250 m3 each day, which is them moved directly by DKK to the processing plants of PT TUJ's 20 ha area in Benggaron village, Genuk sub district. Out of the 250 m3, it turns out that only about 40% of it has qualified as raw material for compost production, whereas the remaining proved to be unusable and dumped nearby the processing plant. In general, the processing cost for transforming garbage into compost is bout Rp. 3.500 each m3, thus by applying 365 working days in a year, the operational cost to invest is about Rp. 319 million.

Out of the compost produced, 70% is used by a sister company for shrimp culture needs and the rest is sold. From the latest information gathered is understood that PT TUJ has temporarily ceased operation since 2 months ago. It is assumed that apart from marketing problems (many people use urea fertilizer) and the scarce opportunity for further processing of the compost (composition of garbage handled, lacks adequate organic elements) and also attributable to internal problems.

Septic Tank Dislodging

To date the septic service (sucking human waste) is entirely carried out by private companies. There are 4 companies who respectively own 3 - 4 orrises for septic tank cleaning service operating in Semarang. The in turn will deliver the material to LPA sites in Tinjomoyo which is made available by the regional administration. The local government will contract the job for a 2 year period which can be extended. The contract includes operation license and contains obligation to pay monthly fees of Rp. 275.000 to the local government for each company, which is payable every fifth of the month and penalty of 5% is charged for late payments.

The rate for each m3 sucking service is around Rp. 12.500 and with a capacity of 2 m3 sucking work for every lorry, the amount for each trip is Rp. 25.000. The number of trips for each month is 116 (based on April 1993 data), comprising :

o.	CV Hidup Sehat	25 trips/month
o.	CV Putina	54 trips/month
o.	V Santoso Jaya	37 trips/month, and
o.	PT Dwi Cendana Utama	10 trips/month.

Based on the above, the quantity of human waste transported each day is 116 trips/month x 2 m3/trip = 232 m3/month or about 2.784 m3/year. The total investment would therefore be 2.784 m3 x Rp. 25.000 = Rp. 69.600.000

Accurate data on the number of septic tanks in Semarang is not available. It is estimated by DKK that out of the 125,000 families, almost 50% of them uses septic tanks. Assuming that for every single family their is a septic tank of 1 m3 and which will become full and will undergo cleaning every 2 years, the total human waste reduced each year is therefore 62,000 m3.

Considering the service capacity at present of the four private companies, the level of service for cleaning septic tanks represents only 4,5%; the remainder is disposed of manually, buried or thrown into rivers. In the immediate future, the DKK will receive 2 lorries for septic tank cleaning. Although DKK is trying to improve the service capacity, however it is not meant to take over the private companies' role for septic tank cleaning in the future.

2.3 Yogyakarta.

Road cleaning.

Prior to discussing road cleaning activities, it is best to consider briefly the garbage situation in Yogyakarta. In terms of the servicing level, the Yogyakarta administration Cleaning & Landscaping Service abbreviated DKP) is now in the position to handle 75% OF THE CITY AREA OF 3.275 Ha. In respect of sub district units, out of the 14 sub districts, there is only 4 sub districts with a population of 380,000 (85% of Yogyakarta entire people which do not come under the serviced areas. On the other hand, people's attitude towards cleanliness proved to be reasonably good, that is, they consciously removed garbage from their homes to the nearest LPS, and this is a great help to the DKP considering the present service capacity.

The volume of garbage produced each day will amount to 1.300 m3, 82% of which have been successfully removed. Furthermore, with a road length of about 210 km, only around 42% could be serviced (cleaned) by the DKP. As to the remainder, the greatest part is taken care of by the community and 3 road cleaning service companies, which represent only 5% of the total road length (inclusive cleaning Mangkubumi and Malioboro roads under the care of the surrounding hotels). More details see Table 5 attached.

Table 4
ANNUAL VALUE OF SERVICES PROVIDED THROUGH PSP – 1992

CITY: SEMARANG

WATER:	Revenues Collected by Pvt (Rp mill)		Collection Fee (Avg)				Value of PSP Service (Rp mill)
PDAM Bill Collection	NA	x	NA			=	NA
SOLID WASTE MANAGEMENT:							
SOLID WASTE COLLECTION/TRANSPORT:	Volume by PSP (m3/day)		Operating Days/yr		Avg. Transport Charge (Rp/m3)		
Private Industry Direct Transport to LPA	25	x	365	x	3,000	=	27.4
LPS to LPA Transport	285	x	365	x	3,000	=	312.1
STREET SWEEPING:	Length (linear m)		Avg. Width (linear m)		Svc Charge (Rp/m2/mo) x 12		
Street Sweeping Contracted to Private (included above)	28,500	x	5	x	54	=	7.7
COMPOSTING:	Volume by PSP (m3/day)		Operating Days/yr		Value (Rp/m3)		
Composting at LPA	250	x	365	x	3,500	=	319.4
WASTEWATER:							
SEPTIC TANK DESLUDGING:	Volume (m3/mo) x 12		Avg m3/ trip		Avg. Charge (Rp/trip)		
Operated by Private	2,784	/	2.0	x	25,000.0	=	34.8
OTHERS NOT INCLUDED ABOVE:	(Specify method of estimating value)						0.0
	TOTAL VALUE OF SERVICES BY PSP					=	701.3

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Specifically, cleaning work for the 210 km total road length, is carried out as follows :

- o. by DKP themselves about 90 km or 42.85% of the road length.
- o. carried out by the 3 companies for 10 km or 4.76% of the road length (for more details on their respective share see table 6), and
- o. the remainder, about 110 km is taken care of by the community.

The three companies mentioned above, have been in business since several years ago and were selected for the job under the awarding procedure, in response to their proposals received by DKK. The contract period is usually for one year and extendable after their previous performance has been evaluated. For each awarded contract the winner will earn (including tax charges) about 1.50% of the total value of the contract. (based on Local Administration Regulation No.2/1984, article 23).

Table 5
Composition of Garbage Production
Management Responsibility in Jogyakarta

Source of Garbage	Piles (m^3/day)	% above Total	Moved (m^3/day)	% Moved	Executor
o. Housing	1.022	77,19	858	83,95	DKK/Comm.
o. Traders	18	1,36	18	100,00	DKK
o. Offices	18	1,36	18	100,00	DKK
o. Cities Road	12	0,91	12	100,00	DKK/Private
o. Industry	27	2,04	20	74,07	DKK/Private
o. Others	227	17,14	164	72,25	DKK
Total	1.324	100,00	1.090	82,33	

Source : Yogyakarta Municipality, 1993
Remarks : Garbage transport cost for each m^3 is about Rp.2.275, covering collection at residential places using carts Rp.950, from LPS to LPA Rp.1.230 and garbage handling at LPA Rp.95.

The calculation for road cleaning rate is based on the design condition of roads in Yogya, by applying a formula for each meter of road length and width of road cleaned, exclusive width for the pavement which is 3 m left and right of the road. Exclusively for Yogyakarta, since the geometry of the roads cleaned by the companies and which for the major part consists of roads with pavements of 4 to 6 m wide, this situation will effect the cleaning rate per m^2/month. Generally, those roads (see table 6) are cleaned 3 times each day, with 8 working hours a day, and 30 working days each month. Basing on the expenditure for road cleaning, thus it may be generally accepted that the cost for 1 m^2 of road cleaning is about Rp.120/month. Based on the cleaning cost by units, therefore the value of road cleaning activity undertaken by the three companies is about (in one year, 88.890 m^2 x Rp.120/m^2/month x 12 months = Rp. 128 million.

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Dislodging septic tanks.

As a common illustration, there are two sanitation systems in Yogya, centralized and not centralized (localized). Particularly in the case of water waste service, this is regulated under the local administration regulation no.9/1991 on Sanitation system or water waste as well as retribution. The centralized system, which is handled by the DKK, consists of sewer network which is 108 km long and separated from rain water channels constructed in 1936 by the Dutch administration.

The area under service is 626 ha or 19% of the entire Yogyakarta city with a total population of 91.800 people. In view of the linkage situation, there are 4.460 connection units (domestic and non domestic), meaning that not all houses are linked to the centralized network system above.

Table 6
Details of Road Cleaning Activities
undertaken by Private Companies

Operator/ Roads cleaned	Length of Road (m)	Road Area (m^2)*)	Total Cost as Calculated (million Rp/year)
U.D Ami & Ami o. Magelang street o. Pangeran Diponegoro street o. Jenderal Sudirman street o. Urip Sumoharjo street o. Laksda Adisucipto street o. Gejayan street	4.548	38.160	57,25
C.V Tanjung Sarana o. Pangeran Mangkubumi street o. Malioboro street o. Ahmad Yani street o. KH Ahmad Dahlan street o. Pajeksan street	3.542	29.590	50,50
Maman's Garden Style o. Trikora street o. Alun-alun Utara and Keben o. Suryotomo	2.027	21.140	30,85
Total of all street	10.107	88.890	137,60

Sumber : DKK Kodya Yogyakarta, 1993
Keterangan : *) = Luas jalan merupakan konsolidasi luas setiap jalan dengan berbagai lebar sapuan.

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Furthermore, from the data available it turned out that the number of subscribers to septic[3] tank cleaning (local sanitation system) happened to be 3.085 families or about 4,3% of the entire Yogyakarta population, which is serviced by 4 septic lorries all owned by the only company, PT Chandra Kirana.

If each subscriber possesses a septic tank of about 1 m3 capacity which will become full after 2 years, the volume of human waste to be moved annually will be 1.540 m3 averagely. For each trip of transportation, with a capacity of 2 m3, the company will earn about Rp. 25.000. Therefore, assuming that the four lorries are operating 365 days, the value of private activity for human waste transportation will be about 1540 m3 x 2 m3/trip x Rp. 25.000/trip = Rp. 19.3 million.

2.4 Medan

Water Bill Collection

As described in the previous report[4], all water bill collecting is dome by the PDAM Tirtanadi in cooperation with the third party, PT Multi Jasa. This cooperation has been going no for the past 5 years under a yearly contract. PT Multi Jasa is given a target for a certain number of bills to be collected each month, and the result of which to be submitted to the PDAM. A bonus is offered monthly, in addition to the service fee, if the bills so collected turned out to be in excess of the target, however if the targets not met a penalty will be imposed or even worse the contract terminated.

So far PDAM Tirtanadi's service share ia about 60% of the city area with a total of 135.000 subscribers (including 15.000 non-domestic connection). Based on information gathered, the collection efficiency reached about 95%, the entire job of which is done by the private sector above. PT Multi Jasa is responsible for a minimal of 70% the total registered bills, for which a 0.75% collection fee is offered. For each increment of 5% above the minimal collected bills, an additional 0,50% - 1,50% (averagely) is given to the maximum of about 4.00%. Under the present water bill collection rate , PT Multi Jasa will earn about 1,50% of the total collected amount of bills, or around Rp. 22,5 million.

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[3] With a total of subscribers above, it appeared that Yogyakarta does have a water dumping location, usually they are thrown into the rivers/paddy field following the transportation by lorries. Through the IUIDP program,a pilot project in Ngasem is being planned for construction, to serve as a treatment plant with a capacity of 10 liter/second, financed under the JICA program.

[4] See Final Report, Survey of Private Sector Participation in Selected Cities in Indonesia, WASH Filed Report no.387, page 23.

Table 7
ANNUAL VALUE OF SERVICES PROVIDED THROUGH PSP – 1992

CITY: YOGYAKARTA

WATER:	Revenues Collected by Pvt (Rp mill)		Collection Fee (Avg)				Value of PSP Service (Rp mill)
PDAM Bill Collection	NA	x	NA			=	NA
SOLID WASTE MANAGEMENT:							
SOLID WASTE COLLECTION/TRANSPORT:	Volume by PSP (m3/day)		Operating Days/yr		Transport Charge (Rp/m3)		
Private Industry Direct Transport to LPA	0	x	0	x	0	=	0
LPS to LPA Transport	0	x	0	x	0	=	0
STREET SWEEPING:	Length (linear m)		Avg. Width (linear m)		Svc Charge (Rp/m2/mo) x 12		
Street Sweeping Contracted to Private	10,167	x	9	x	1,460	=	133.6
COMPOSTING:	Volume by PSP (m3/day)		Operating Days/yr		Value (Rp/m3)		
Composting at LPA	0	x	0	x	0	=	0
WASTEWATER:							
SEPTIC TANK DESLUDGING:	Volume (m3/mo) x 12		Avg m3/ trip		Avg. Charge (Rp/trip)		
Operated by Private	1,540	/	2.0	x	25,000	=	19.3
OTHERS NOT INCLUDED ABOVE:	(Specify method of estimating value)						0
	TOTAL VALUE OF SERVICES BY PSP					=	152.8

Compost Production Process.

There are a number of candidate investors doing survey work suitable for the LPA management job (composing and recycling)- however no such job has ever been accomplished. A cooperation scheme now underway is with a cooperative, UD Karya Pembangunan (for compost)[5] and PT Jaya Tani (who in addition is active in handling compost, is concurrently a cooperative with some 800 membership out of some 2,000 garbage collectors in the city of Medan). This cooperative used to handle the recycling and collection system (there are two villages under its responsibility), both of which accomplished in a traditional way. The regional cleaning service agency (PD Kebersihan) has entered into a joint venture contract with PT Jaya Tani for a 1.500 ton of compost production each year, which contract is extendable provided the agreed production is met before it becomes due.

To handle the compost, PT Jaya Tani, is using solid waste at the LPA of 6 months to 1 year old. Its product is white and smooth compost fertilizer and packed in plastics bag, then sold to the community and the Medan Landscaping Service after having been tested by the Plantation Service Laboratory[6].

PT Jaya Tani intake capacity of solid waste, under the contract above, is about 20 m3 daily, using an efficiency rate of about 89% capable of being processed into compost. In other words, in one single day there will be about 17,8 m3 compost being processed. Using a average 25 days of operation, the total solid waste processed is about (17,8 m3/day x 25 hari = 445 m3 or 5.345 m3 annually. Within the context of the contract the expected production achieved based on a standard of 1 m3 solid waste which is equivalent to 250 kg of compost, the production capacity at this moment is (5.345 m3 x 250 kg/m3) or about 1.335 ton.

Furthermore, in terms of the rupiah value, for each kg. of compost it is estimated to cost about Rp. 50.- . The compost produce will then be packed in units of 5 kg. (for household use) and 50 kg (for non household use). From each kg. sold, the Region Cleaning Service agency will deduct Rp.3,- (this being a replacement to the method of 20/80 revenue sharing), thus in general term based on the above production capacity, the value of compost annual production is estimated to be about 1.335.000 kg x Rp.50/kg = Rp. 66,75 million, whereby "Bestari" Cleaning Service is to earn about Rp.4 millions/year.

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[5] Likewise PT Tri Utama Jinawi (PT TUJI) in Semarang, UD Karya Pembangunan is ceasing production temporarily due to its compost production marketing problems.

[6] Trial of laboratory tested compost di conducted by the Plantation Office at location where the compost is to be supplied. The result of the trial will determine what additional contents is required for the specific location. In this connection, PT Jaya Tani turned out not to be only engaged in compost processing using available solid waste, however it is also engage in activities to processing compost for the production of soil fertilizers.

7,46

Table 8
ANNUAL VALUE OF SERVICES PROVIDED THROUGH PSP – 1992

CITY: MEDAN

WATER:

	Revenues Collected by Pvt (Rp mill)		Collection Fee (Avg)		Value of PSP Service (Rp mill)
PDAM Bill Collection	1,500	x	1.50%	=	22.5

SOLID WASTE MANAGEMENT:

	Volume by PSP (m3/day)		Operating Days/yr		Transport Charge (Rp/m3)		
SOLID WASTE COLLECTION/TRANSPORT:							
Private Industry Direct Transport to LPA	0	x	0	x	0	=	0
LPS to LPA Transport	0	x	0	x	0	=	0

	Length (linear m)		Avg. Width (linear m)		Svc Charge (Rp/m2/mo) x 12		
STREET SWEEPING:							
Street Sweeping Contracted to Private	0	x	0	x	0	=	0

	Volume by PSP (m3/day)		Operating Days/yr		Value (Rp/m3)		
COMPOSTING:							
Composting at LPA	20	x	300	x	12,500	=	75.0

WASTEWATER:

	Volume (m3/mo) x 12		Avg m3/ trip		Avg. Charge (Rp/trip)		
SEPTIC TANK DESLUDGING:							
Operated by Private	0	/	0	x	0	=	0

OTHERS NOT INCLUDED ABOVE:	(Specify method of estimating value)		0
	TOTAL VALUE OF SERVICES BY PSP	=	**97.5**

2.5 Bandung

Water Bill Collection

As described in an early report (see Final Report, PSP Survey-WASH Field Report no.387, Appendix D-5: Bandung's City Profile), there is no form of participation by third parties in activities for the supply of water. All activities are still performed by PDAM Tirta Dharman itself, which is presently intensively attempting to improve the water bill collection efficiency (currently, the rate of efficiency is about 60-65%). As an initial step, PDAM Tirta Dharma has undertaken a comparison study with PDAM Surabaya (on bill collection) and PAM Jakarta on meter reading), to obtain information on their respective work experience with the private sector.

Based on the latest information gained, there will be a joint operation conducted with third parties to collect water bills on a limited scale in the an army housing complex. The initiative comes from the PDAM, because they experienced difficulties in the collection of water bills, then requested the PUSENIF Cooperatives to perform the collection. At this moment, there are 500 subscribers in the army complex. Negotiation is still underway concerning the service fee, and it is anticipated to agree for rate of Rp. 350 for each bill collected by the cooperative[7], provided all subscribers are billed and fully paid. Therefore, if considered that the activity constitutes a form of role on the part of the third party, the value of service activity for one year will be about 500 connection x Rp.350/connection/month x 12 months = Rp. 2.1 million.

[7] Although this fee is considered reasonably high if compared to the revenue of water bills, yet even more higher than the fee offered to the private sector in Surabaya, however PDAM Tirta Dharma is motivate to do so is because of the consistency in improving the collection efficiency that matters. And evidence has shown that the resulting revenue under cooperation with the PUSENIF Cooperative turned out to be more higher than if done by PDAM themselves.

Table 9
ANNUAL VALUE OF SERVICES PROVIDED THROUGH PSP – 1992

CITY: BANDUNG

WATER:								
		Bill Collected by Private/year x 12		Collection Fee (Rp./bill)				Value of PSP Service (Rp mill)
PDAM Bill Collection		6,000	x	350			=	2.1
SOLID WASTE MANAGEMENT:								
SOLID WASTE COLLECTION/TRANSPORT:		Volume by PSP (m3/day)		Operating Days/yr		Transport Charge (Rp/m3)		
Private Industry Direct Transport to LPA		0	x	0	x	0	=	0
LPS to LPA Transport (including sweeping)		0	x	0	x	0	=	0
STREET SWEEPING:		Length (linear m)		Avg. Width (linear m)		Svc Charge (Rp/m2/mo) x 12		
Street Sweeping Contracted to Private (included above)		0	x	0	x	0	=	0
COMPOSTING:		Volume by PSP (m3/day)		Operating Days/yr		Value (Rp/m3)		
Composting at LPA		0	x	0	x	0	=	0
WASTEWATER:								
SEPTIC TANK DESLUDGING:		Volume (m3/mo) x 12		Avg m3/ trip		Avg. Charge (Rp/trip)		
Operated by Private		0	/	0	x	0	=	0
OTHERS NOT INCLUDED ABOVE:		(Specify method of estimating value)						0
		TOTAL VALUE OF SERVICES BY PSP					=	2.1

CHAPTER 3

FINDINGS AND CONCLUSION

3.1 Summary on Annual Value Private Sector Service

Out of the eight cities visited, there are only five cities considered to have private sector participation in the water supply service. However this participation is of a service nature in conjunction to the above fields of activities.

In general term (at all the five cities), the annual value of private service comes to about Rp.1.9 billion.The Surabaya Municipality is occupying the highest ranking in respect of the total rupiah value, which is about Rp. 930 million or 49% of the overall total. Next follows the Semarang Municipality with a Rp.700 million (37%)rate of the annual value private service. The remainder, about 14% is scattered among the three other cities (Medan, Yogyakarta, and Bandung). See Table 10 to follow.

From the three fields above, garbage represent the field that is much participated in by third parties, more or less 30 companies/corporate who are in the business of street sweeping up to management of LPA. Although their participation in this field is relatively high in comparison to the other two fields (total of activity value in the field of garbage service is about Rp.1,45 billion or 77% of the overall existing activity fields), however the nature of joint venture being accomplished still consists of service contracts and, except for cleaning human waste and compost production, in general their funding still originate from the APBD II.

On further consideration that funding for human waste cleaning and compost production constitute a sort of private fund mobilization(beyond regional budget funding), it is obvious that the service or the production value of the two activities proves to be incomparable to the working capital invested for the activity. As an example, PT TUJ whose business is in the filed of compost attain a production value about Rp. 320 million each year. To operate such business, PT TUJ established a plant consisting of compost processing unit and an LPA of 20 ha. Assuming the cost of land to be Rp.2500/m2, PT TUJ's investment will amount to Rp. 500 million. With an estimated profit of maximally 15%, the "ROI" rate is only 9,6%. Therefore, it is understandable that for a company to accept an LPA management assignment without some assistance from the regional administration (for product promotion and marketing), will face some constraints in expanding their business. The same situation will be faced by lorry operation to clean human waste, when based on data/informal obtained (see again description in sub chapter 2.3), it will be almost possible for the company to expand[8].

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[8] Given roughly, the ROI for this activity in Yogyakarta is about 1,5% (assuming the unit price of a waste cleaning truck is about Rp.60 million)

3.2 Factors causing difference in Annual Value.

In relation to Table 10 attached, one can note the variation in the intensity of participation activities of the private sector among the cities surveyed. In general terms, it can be concluded that variation occur firstly in the fields of private participation among the cities, secondly the difference in rupiah value among the private participation activities with the same component.

In respect of the first issue, the variation and/or intensity of private activity is very obvious in cities of Surabaya and Semarang (except Jakarta). In this connection, it is not too much to say that the role of the Mayor still represent a key factor to encourage the private participation in various activities in their respective areas[9]. A brief survey conducted previously did not conclude the presence of other factors involved,at the least not for the present time, having a significant effect in relation to the dynamics taking place in the two cities above.

In consequence to the first issue, a second variation emerged, whereby the procedure, mechanism, and operational standard being implemented proved to be reasonably different from one city to the other[10]. In more details those differences in the mechanism and procedure of private activities participation is as follows :

- **Mechanism and Procedure,**
  This include promotion, preparation of activities, and work contract negotiation. Invitation and the tendering process (competitive bidding) is made by the Surabya Municipality, and in general private companies will respond by submitting their proposals Surabya city profile, Appendix A1 to the WASH Field Report no.387).

  This proses has not been introduced in other cities. Companies interested in, used to try to submit their proposals through the Bappeda Related Technical Service) which if then proved to be in line with the related agency's plan then the negotiation will follow (represents a direct awarding as is the case in Semarang and Yogyakarta). That will affect the contract period, contract value and other technical aspects described in next paragraph), in which case a variation in the contract period from 3 months (Surabaya)[11] up to 1 year (Yogyakarta).

- **Application of a Standard Technical Calculation Cost,**
  The calculation for a standard operational cost and infrastructure maintenance under the 'POMMS system' in which the entire city is covered is in accordance with the above guidelines. In site of that, there is a significant difference in calculating cost component

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[9] From table 10 it can be noted that Surabaya and Semarang possess at least 5 types of private participation activities in sectors of water supply, solid waste, and sanitation; whereas other cities between 1 - 2 actives only.

[10] It should be stressed, that inspire of the differences, however all apparatus in the regions (Level II) are basing their policies and efforts for the improvement of private participation on regulation no.4/1990 of the Ministry of Home affairs.

[11] See William R.Krugler's Trip Report, Surabaya 26-29 August 1991, indicating a complaint exist that the contract period is too short, thereby affecting the capital investment by from the companies involved.

Table 10
ANNUAL VALUE OF SERVICES PROVIDED THROUGH PSP – 1992

SUMMARY OF 8 SURVEY CITIES

SECTORS	SURABAYA	SEMARANG	YOGYAKARTA	BANDUNG	MEDAN	PONTIANAK	UJUNG PANDANG	BEKASI	TOTAL
WATER									
PDAM Bill Collection	20.0	0.0	0.0	2.1	22.5	0.0	0.0	NA	44.6
SOLIDWASTE MANAGEMENT									
SOLID WASTE – COLLECTION / TRANSPORT									
Direct Transport LPA	242.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	269.4
LPS to LPA Transport	321.1	312.1	0.0	0.0	0.0	0.0	0.0	0.0	633.2
STEET SWEEPING	18.0	7.7	133.6	0.0	0.0	0.0	0.0	0.0	159.3
COMPOSTING	0.0	319.4	0.0	0.0	75.0	0.0	0.0	0.0	394.4
WASTE WATER									
SEPTIC TANK DESLUDGING	326.1	34.8	19.3	0.0	0.0	0.0	0.0	0.0	380.1
OTHERS NOT INCLUDE ABOVE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL VALUE OF SERVICES PROVIDED BY PSP	927.2	701.3	152.8	2.1	97.5	0.0	0.0	0.0	1,881.0

for similar activities. For example, the unit cost for street sweeping of 1 m in Surabaya is about Rp.60/m2/month, for Semarang Rp. 54/m2/ month, but for Yogyakarta it is as high as Rp.1.460/m2/month. Similarly the cost for compost production/m2 is about Rp. 3.500, whereas for Medan will be Rp. 12500/m2 (for Jakarta, for comparison purposes, the cost is about Rp.7.000/m2). When the difference is multiplied with the volume of activity, then the activity value difference from one city to another become relative[12]. This difference in activity component costs is due to adjustment applied by the respective related regional agencies and attributable to the physical geometric condition (for street sweeping) and composition of solid waste produced (for compost handling). In Yogyakarta for instance, the high cost for street sweeping is because generally the street being sweeper have large pavements (6 to 9 meters), therefore for each m length of street it has a larger area unit (in m2). Alike the activity for compost handling it is rather 'substantial', meaning that the solid waste being handled is of a life period of 6 to one year[13].

In view of the above it can be concluded that (a) there has been private participation activities going on in the public service and tending to be more increasing, in terms of value as well as extent of activity, (b) the existing private participation activity is still of a contractual nature for technical operation (contract service) which is in general executed by the related regional agencies, (c) funding for the private activity are derived from APBD II sources, which does represent a genuine mobilization of private funds (d) to open up opportunities for third parties (private) for their participation, usually due to limited regions improving their services (in the framework of meeting the existing demand) but not an attempt to utilize the private sector potential[14], (e) under the present conditions it seems that the private role does not cause the activity cost to drop, yet it is tending to become expensive (this is obvious as the efficiency principle has not been applied but priority is given to the expansion of community service, (f) to a certain extent the regional chief still constitute a key role, thus in spite of the formal structure for private participation has not been institutionalized, at least it proved to be adequately implemented, (g) for the moment the significance of participation intensity should not be judged from the value extent of private participation but more so from the variety of participation taking place (h) limitation in regulation/guidelines in addition to the lack in implementation experience on the part of the related personnel, causing substantial variation in the resulting analysis/calculation. The application of the 'POMP System' is not accompanied by formation of a 'database system' to obtain a design profile and technical infrastructural dimension which subsequently will affect the operational and maintenance cost and lastly (i) the tendency of private participation activity which does not fall under the operational responsibility of the related agency (such as compost handling, recycling or the destruction of solid waste using advance

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[12] From Survey Results, it was revealed that the transport from LPS to LPA in the three cities covered showed a similar unit result, in which transport cost for Surabaya being the lowest about Rp.1.100, then for Semarang which is about Rp.3.500 and for Yogyakarta about Rp.2.275 (See description in previous paragraph).

[13] During the process from solid was to compost, the private company (PT Jaya Tani) has enriched the compost with content elements as required (see again description in item 2.4 above).

[14] Especially for human waste sucking, except for Medan and Bandung, all activities are done by the private sector, without use of regional funds. Even for Semarang, the activity provided income to the regional treasurer.

technology has not obviously obtained serious attention. Considering the various activities above (generally referred to as 'LPA management' the scope of activity is of substantial influence to decreasing the operational and maintenance costs and capable of generating income to the regional treasurer and therefore attention from the government is called for[15].

[15] There is an impression that whenever the concerned agency has the status of a regional corporate, the activity of 'LPA management' could be given priority in order to improve regional income by utilizing third party roles. On the other hand, 'classic' activities such as street sweeping and garbage transportation should still be executed by the regional agencies themselves. This situation is due to the regulation of the Ministry of Home Affairs No.4/1990. Apart from the view that the establishment of Regional Agencies into corporations is attributable to the low participation opportunities on the part of private participation in activities under service contracts.

CHAPTER 4

PRELIMINARY RECOMMENDATION ON MONITORING SYSTEM DEVELOPMENT

4.1 Overview of PSP activities and Problems

In spite of the fact that in cities being surveyed, there are private activities taking place in the fields of water supply, solid waste handling, and sanitation, however in general terms there is no such system in place for unifying all activities into one single official form as part of a regional planning process. The existing activities since inviting third parties, awarding or selecting them, determination of standard cost, negotiating on the proposed cost components, and approval of contract, as well as recording activities performed, the whole process is still in the control of the respective agencies. In general, efforts to involve private participation is based on the lack of personnel in the concerned agency to improve services (Office of Semarang Cleaning Service and intensification in efforts to improve income - via expansion of payment counters (PDAM Bandung Municipality) or through accurate reading of water meters PDAM Tirtanadi Medan). It can still not be concluded with confidence, that the involvement of third parties could lower expenditures which is generally spent when handled by the concerned agency. Almost all working contracts of third parties are funded by APBDII, except for compost production (PT TUJ in Semarang and PT Jaya Tani in Medan) which in principal does not fall under the authority of the cleaning service agency. In particular for human waste sucking work, there has been a difference of perception between the four cities visited. Semarang municipality is of the view that this activities is a genuine private activity, whereas the DKK is merely functioning as an advisor or responsible agency if the activities suddenly ceased. In that case, the DKK Semarang Municipality could generate its 'off-budget' income though not much. The Yogyakarta administration has so far not been able to determine its policy regarding the management of sanitation (the regulation for this is being processed, and seemingly the approach is similar than that of the Semarang Municipality. For Medan , this service is executed fully by PD 'Bestari', by which the regulation is restricting the possible involvement of third parties in this activity. Bandung is more strict and decides that the sanitation sector is the responsibility of PDAM, dirty water division, thereby closing the opportunity for third parties to be involved in human waste cleaning.

In general terms, the presence of difference in regulating participation of third parties above, can be attributed to two main factors, they are :

- **the perception and direction of existing policy**, as contained in regional regulation or Letter of Decision of the Regional Chief concerned. The regulation will determine whether or not there is the opportunity to develop the private sector potential in public undertakings,

- **the form or status of the agencies involved**. In general, the opportunity for cooperation with third parties is greater if the form or status of the cleaning service agencies are still local government agencies instead of state owned regional corporate. On the other hand, this does not apply to those fields which does not fall under the services of the concerned agency, such as for composing, recycling, or incinerator.

4.2 General Input for Monitoring System Development

General view.

In general term, the monitoring of private participation in cities development has not been undertaken by the Regional Administration, in spite of the several ongoing participation taking place in a number of cities (see again WASH Field Report no.387 table 6). From information obtained, the Regional Administration level II has welcomed the serious attention given to the private sector participation.

Some views and opinion obtained that the monitoring activities on private participation in principle not too difficult to implement, provided that the constraints cold be coped with. The constraints and potential related to the monitoring activities mentioned, comprise the following:

- o. In several situation, the private involvement should not be viewed in terms of administrative units (focussing on city territory in relation to scope of survey activity). The Yogyakarta administration stated that the scope of private activity should be seen in relation to a large territory in terms of its potential. Yogyakarta should be viewed in respect of its territory including some area within the Sleman and Bentul Districts. Consequently, the coordination of monitoring activities should be executed jointly with other regional administration involved. The problem is coordination between two levels II with different status. Law no.5/1974 (prior to revision) is not differentiating between management methods of one city of municipality status and another city located in a district.

- o. The participation role of the private sector is still considered new by the regional administration. Bandung Municipality is of the view that there still are perception to the effect that private companies are only profit oriented and subsequently pay little attention to quality service (in some cases it can be proved that service quality of private companies are not better than those rendered by regional agencies. In the mind of Yogyakarta Municipality within the agency itself,the bureaucratic sphere still cause some constraints towards improvement of the institutional capacity dan appreciation of government officials "achievements, thereby motivation to autolyze the territories" potential optimally, let alone efforts to involve the private sector, has not become a chief priority.
- o. The establishment of a new structure within the Sekwilda office, which is the City Division (established via the Regulation of the Ministry of Home Affairs no.3/2987) which offers an alternative to the implementation of the private activity system monitoring . This is because within one of the agency's scope of authority indicates that it is the only agency to deal with cooperation between the regions. Then, in terms of the requirement of a city, this agency will be the centre for developing all task that relates to 'urban management', which is the chief characteristic of city activities.[16]

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[16] The concept on development of city sections, is related to mobilization of private and community funds, as well as professional management which is currently being explored by the City Division, Semarang (see contact person on Attachment 'D)

- o. Up to now, the regional government is based on the only formal regulation, the PerMendagri no.4/1990, which offers the opportunity for joint operation with third parties.[17] However, under the PerMendagri above, the Dispenda is assigned as a Team Leader to deal with matters related to third parties, yet no structure and function have been established for the Dispenda.

- o. Even though private participation is ongoing in several cities visited, however the factor of "uncertainty" for the private sector and the "back up capability" of the Regional Administration will become the main problem to be solved if the private participation is going to be increased and developed in the future.[18]

Main problems to be considered.

Proceeding from the above description,it is felt that now is the time develop the monitoring activity on private participation. However on the other hand, there still constraints to be coped with or reduced to ensure that the system will run effectively in accordance with the target as well as several input in connection with development of the monitoring of private participation.

It is also necessary to know precisely which agency is engaged in the monitoring work, and what are the constraints in terms of coordination among the regions, and the characteristics of the private sector participation in one city and in the other one to run well.[19] The agency selected should preferably be similar for all regional administration covered (principle of conformity and simplicity, year capable of solving difference in term of location.

Under the present situation, amidst the limited experience and technical guidance, it is best that the joint operation with the private sector is done on behalf of the regional government and the private party, and not offered to the respective agencies involved. Thus,it is up to the regional government to act conceptional and subsequently be executed by the offices/technical agency involved. The vertical relation with the Central Government serves as a directive and education, where as horizontally it serves as a comparison and information exchange on experiences, methods, and conditions in their respective areas.

As is touched in item 3.2 the role of the regional head is still to do with responses and private participation development policies. Considering that for a number of cities the intensity of private

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[17] Semarang has followed up the Permendagri no.4/1990 by issuing Perda no.6/1992 containing the joint operation implementation mechanism with third parties. Furthermore, the issuance of the Perda can be used as a base to establish 'ad hoc' institution specifically dealing with improvement to private sector participation in city development.

[18] See 'WASH Study Report on PSPUWS', Working Paper D- Institutional Aspect, 1980/91.

[19] From a number of sources contacted, proceeding from a "present" situation, the selection of agencies is influenced by the scope of monitoring to be undertaken. f the monitoring include monitoring on the administration only (such as licenses, negotiation proses and legalizing work contract, as well as recording related documents), this work can be assigned to the Tingkat II agency. However, if it also covers monitoring and supervision of third party's operations, (considering the constraints above) it will be best that the job is given to the Tingkat I agencies.

participation activities have been going on satisfactorily, the Central Government therefore is expected to action as a mediator to disseminate the experience to the other potential regional government (Level II)and undertake practical training programs.

4.3 Preliminary action for monitoring system development.

In general terms, the has been an impression that the monitoring of this private sector participation, is in fact not too difficult to realize, provided a number of condition be prepared or be considered, they are :

o. The Central Government should provide guidance/directives on the mechanics and procedure, and subsequently issue instruction (the equivalent of a Ministerial Letter of Decision);

o. In some instances, the Tingkat II administration possesses similar experience in information collection and their evaluation.[20] Ideally, the Central Government should not provide a mechanism which is completely new requiring time for the regional apparatus to organize.

o. It is necessary for the Central Government to participate in the promotion for an alternative city development involving private sector participation. For the regional administration, policy-wise , an indication be given of the distribution of participation policy integrated into a Basic Guidance and Repelitada (Regional Five Year Development Plan). It is expected that the Central Government take a more active role by way of disseminating information to the regional administration.[21]

o. In connection with the above item, the regional administration is expecting initiative steps for the participation of the private sector in general, and monitoring private sector activity indicator specifically, to originate from the Ministry of Home affairs. The Ministry of Home Affairs is in a position to undertake a seminar of workshop on the execution of monitoring. Further, as a preliminary step the regional administration should form an "ad-hoc" team with the duty to collect information and establishment of basic data relating to third parties's participation.

o. On the part of the regional administration, the formation and operation of an 'ad-hoc' team will benefit the existing functional staff. The problem is no formal agency to execute the monitoring has been determined. Generally, cities visited have welcomed the idea

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[20] Collecting information and their evaluation has been conducted by regional administration level II in the form of a document 'Regional Resources Balance'(NSDAD), representing an input to Bappenas to determinate development priorities.

[21] See Draft Paper for Working Group on PSP//', 4 March 1992.

provided the Bappeda serves as the centre of these monitoring activities.[22] Considering that Bappeda is classified to have more than 500.000 people for each of its Municipality city territory, the principle of 'uniformity and convenience' (see previous paragraph) is therefore implementable.

o. Just for clarity, at the start the questionnaires and complimentary information list (see Appendix C attached) can be used. This questionnaire needs improvement among others that which relates to the use of the figure "variable", unit cost calculation, accuracy of volume/load of work on the part of the third party, and combination variables to arrive at a Rupiah service value of the third party. Then within the system, the questionnaire could be improved by expanding its related scope of fields of the private sector participation, watch the convenience of its application, evaluating the calculation, formation of a data base system, and comparing the indicator characteristics obtained between one city and the other one.

[22] One of the characteristics distinguishing the Bappeda and other agencies is the presence of a 'Research and Development' function comprising Division 4 Research, Cooperation with the Division of Statistics/Reporting, the Bappeda therefore so far represents the best candidate to hold the function for monitoring the private sector participation role.

APPENDIX A

Brief Explanation On the Surveying Activities Serving as Information for the Agencies Visited

PRIVATE SECTOR PARTICIPATION SURVEY (GOI/USAID Cooperation)

Data/Information Collection on Monitoring Indicator Private Sector Activities in the field of City Development

The following explains the substance of work to provide additional material to the survey activity conducted towards the end of 1992.

1. Background

1.1 At the request of the USAID being the client and the Final Report (as presented on 27 January 1993 in front of the Interdep Steering Committee), it is decided to apply more sharpness on the 'monitoring indicator' material of the private investment participation activities in towns covered.

1.2 The main activity on Private Sector Participation now underway, i.e the PURSE Project- which constitutes a study to be supported, it is felt necessary to more emphasize the data monitoring 'baseline'.

2. Objective and Scope of Work

2.1 The activity consists of data/information collection (being a follow up deepening effort) of the indicator monitoring, such as stipulated in the Term of Reference. The types of indicator to be collected will cover the investment value indicator being conducted by the private sector. Sectors to be covered include the Water
Supply, Sanitation (waste water) and Solid Waste.

Furthermore, location to be surveyed, if necessary, will cover cities covered in the previous PSP survey. It is not necessary to visit all the cities, since not all cities run such private participation activities of some significance. It is suggested, that minimally four towns ought to be revisited, i.e. Bandung, Semarang, Yogyakarta and Medan.

2.3 In line with the Terms of Reference, the formation of the indicator monitoring has to be arranged as simple as possible and will adequately reflect the private participation intensity in the cities covered. In addition, the indicator arrived at will be capable for use as a base, which subsequently can be updated each year. Therefor, apart from collecting the types of indicator the data of which is being gathered, it is also necessary to determine
a method for collecting and data updating of the indicators data (more on this will be explained in a different part of this presentation).

3. Problems

3.1 One of the constraints faced is the absence of a formal system to record all private sector investment activities for a particular area. Consequently, even though the data/information will be of temporary use in relation to a specific activity undertaken by the regional administration, this does not constitute a continuous data maintenance. The data/information which is usually scattered in a number of regional agencies and that between one area and the other their existence and data format there is no similarity.

3.2 In connection with the above, for the purpose of collecting data/information on the indicator monitoring much will depend on the method of interviewing individuals believed to be knowledgeable about of the private participation activities. There is however a weakness, by way of interviewing, the resulting quantitative data will be limited and tending to be of a subjective and indicative nature.

4. Problems to be considered.

4.1 What needs to be noticed is the importance of defining a detailed scope of work since the main issue is not only collecting data/information regarding the private sector participation investment value but further more the issue of how to make the indictor functioned in order the be operable through a formal system (institutionalization), both in the regions and the central government.

4.3 Taking note of the activity substance of the PSP project (linked to the PURSE Technical Assistance Project) and conditions in the field, the question is what method, proses and schedule togo about in the collection activity (including the institutionalization) ? This is so, because in addition to collection data/information, it is also important to do 'up-dating' on a yearly base under a particular institutional system structure ?

4.4 At least, some input on the mechanism of implementation or in the process of collecting data/information and whether or not the following is necessary :

a) the holding of a meeting with other Departments related with the collection data/information;
b) obtain prior approval from the higher agency to obtain of the regional administration ?

c) an initial confirmation that the data/information should be obtained directly from the related agency in the region, such as the PDAM, Cleaning Service Office, or others involved.

d) deciding which agency should be held responsible for the preparation and reporting of the indicator, whether it should be the Bapped II or Development Section, or Bappeda I or other agencies involved.

e) issue instruction at the Central Administration level concerning which agency should be responsible in the compilation of all data/information every year.

f) transferring or notifying the contents and target in the collection of data/information to each province concerned ? And the solution to the problem share s certain agency did not report?

g) review by way of returning the indicator data previously sent by the regional administration if after having bee scrutinized there are some unclear issues to be coped with?

h) in connection with item g) above, the establishment of some training to be provided to the regional government involved.

All of them above, will necessitate an attempt to institutionalizing on monitoring and the evaluation of private sector activities in the city development in particular.

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APPENDIX B

List of Information Collected
As a base for preparation of Monitoring Indicators
(Simplified)

In order to obtain data/information on monitoring indicators, some basic information (former) needs to be obtained of the respective types of indicator. This indicator former will be used as a base to calculate, a) the overall private service investment value in terms of the activity component concerned and b) the amount of indicator unit (such as indicated in the above table).

Furthermore, this information base should be used as a private participation database,('PSPD'), which every year could be updated. Evaluation of the 'PSPD' above will render a more accurate forecast of the indikator monitoring component analysis (see item a) and b) in the earlier aliena), after having arrived a complete data serial (time series data). For surveying purposes, the basic information explained below will be limited in a similar fashion as scope explained in Chapter I earlier.

a. Water billing

- o. Efficiency level of billing recording as at present
- o. The commencement period of private participation within this component of activities
- o. number of third parties undertaking the water billing component
- o. Legal form of the company executing the above activity component and details of their types
- o. % (in general) of number of bills collect by third parties compared to the overall water subscriber bills.
- o. Selection process of third parties for undertaking the component
- o. The period spent for the service by third parties and form of evaluation carried out
- o. Number of water bills/connection handled by third parties
- o. Rules on the minimal number of bill to be collected by the private parties
- o. Compensation system for third parties for their services accomplished (compensation system in relation to percentage of bill collected/collecting efficiency)
- o. Overall total of bills collected currently and the fee proportion obtained by third parties against the total.

b. Street sweeping and Solid Waste transport from LPS to LPA.

- o. Number and Private Company name in operation
- o. Composition of street length and street status (see nettable):

Function of the street	Length of street (km)	% swept	Swept by:
o. Artery street o. Protocol street o. Collector street o. Community street			
Total street			

- o. Total length of street swept by the private sector
- o. Number of household and total garbage production in the municipality of Yogyakarta(m3/day)
- o. Size of the DKK service...ha (..% to total city size);
- o. Total population serviced...souls(...% to total city population)
- o. Details on Garbage Production(m3/day), such as the following:

Solid waste source	Dumped (m^3/day)	Moved (m^3/day)	Type of Transport
o. Household o. Industry o. Office o. Trading o. Streets o. Others			
Grand Total			

- o. Street sweeping cost for each m2/month
- o. Criteria for area unit swept by private for each:
  - ,- meter of length
  - ,- width...meter,consisting of...meter of pavement, dan .....
    meter of street body(right-left) thus, length x width = ... m2
- o. Number of street sweeping working days in one year and sweeping frequency in one day;
- o. contract period for the private company service
- o. Procedure of inviting private companies interested(direct appointment/tender)
- o. Other expenses (tax and fee) offered to the private company (the cost is normally expressed in % of operational expenses)
- o. Total current contract value offered to the private company
- o. Transport cost from LPS to LPA (average) per m3 which can be noted from :
  - ,- Transport cost from each household(by beca/cart), which is Rp..../m3;
  - ,- Lorry transport from LPS to LPA at Rp.../m3 (depending on type of lorry and that at an average cost only);
  - ,- Solid waste handling cost at LPA at Rp...../m3;

- o. Cost for the use of LPA charged to the industrial activity by DKK/Regional administration for each m3.
- o. The regional administration regulation for determination of retribution No. ..../19
- o. Amount of retribution charged to :
  - ,- Household varying between Rp.... to Rp.....
  - ,- Industry/Large activity about Rp.....
  - ,- Business/Commercial between Rp..... to Rp.....
- o. Total revenue from garbage retribution each month(last month only)
- o. Method of garbage retribution payment comprising of :
  - ,- PDAM subscribers, payable through.... with payment efficiency level of ....%
  - ,- Non PDAM subscribers , payable through... with payment efficiency level of ....%
  - ,- Large business(industry), billed by.....
  - ,- Market activities, billed by.....
- o. Number of inhabitants serviced by PDAM in comparison to city total population is about .....%;
- o. Plan for development of private sector participation in the future.

c. Human waste Dislodging.

- o. Number of household using septic tank in the related Municipalities(rough estimation in %)
- o. Average estimate of volume of septic tank.....m3
- o. Approximate period for tanks becoming full .... year;
- o. Number and human waste trucking company broken down in:
  - ,- number of lorries owned by the company
  - ,- number of trips run by the trucks(average) each day
  - ,- Capacity/volume of human waste lorry.....m3.
- o. Charges for each m3, at Rp..../m3(or it can also be calculated from the cost charged for each trip)
- o. Retribution church or whatever charged to the private sector by the regional administration.
- o. Development plan for the future.

d. LPA Management: Composing process

- o. Number and company name involved in the activity
- o. Amount and volume of garbage processed each day, in....m3/day
- o. Human waste composition received and its volume usable as compost raw material(...% of the total solid waste production received)
- o. Period required for compost processing in one month(in days)
- o. Number of average labor each day and total compost production produced in one day(in m3)
- o. Cost component spent in one year(estimated in % against total yearly disbursement of Rp..... million/year, broken down into:
- o. labor cost
- o. equipment and production material cost
- o. equipment maintenance and location of garbage disposed

- o. Marketing expenses(transport,promotion,packing)....%
- o. Other expenses.
- o. Usage of compost
- o. Problems and development prospect on compost handling in the future.

APPENDIX C

Indicator Monitoring Questionnaire

The questionnaire sheet on private participation in city development service contains a number of components in the field of water supply, sanitation, and solid waste.[23] It is recommended that the questionnaire will be used as a base for data records conducted by the administration level II, and subsequently used by the central government as an monitoring indicators activity participated in by the private sector.

In principle the questionnaire is prepared in a way to make the application simple and reflecting the approximate private activity value, whereby their participation (private) is determined in a Rupiah format. This questionnaire is not meant to record the extent of investment (goods, capital goods) and neither will distinguish the source of funding. The source of funding will be from the APBD II source or genuine private sector, provided the implementor is a third party. In next discussion details on the questionnaire will be provided.

This questionnaire consist of two main information, on the line contains types of activity and component within the activity, and in the columns will contain the activity dimension(scope of work) undertaken by the private sector, rupiah unit for activities performed and lastly, the private participation activity in one year. As explained earlier in item 4.2, figures indicated in the questionnaire ought to be substantiated by base information/former (see Appendix B) required for evaluation on several cost units used and for updating figures in futures year. More clearer on this questionnaire please refer to subsequent paragraph.

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[23] As initial step towards the development of private participation system monitoring, a recording system proposed by the WASH previous study and MFP team is used. For the purpose of reporting of this survey, the questionnaire will cover only 3 sectors, however in general term, this simple method can be developed further to cover the overall participation activity prevailing the cities involved.

Explanation to each figure variable to be completed (activities marked with 'proposed' to mean that the number and type of figure variable used still need to be tested in terms of their effectiveness in the filed)

1. Water Supply sector

a. **The collection of water bills consists of two figure variables,** i.e. :

- o. **Bill value (in millions of Rupiah) collected by third parties,** represents the amount of Rupiah collected by third parties in one year (12 working months)
- o. **Average fee value obtained by third parties for their services in one year (in %).** This average value obtained by adding up all fees obtained by third parties for bill collected each month, based on the percentage system agreed between both parties and divided by the bill value.

b. **(Proposed) Water meter reading,** which consists of two or three figure variable (as necessary), they are:

- o. **Number of connection recorded (in connection units) by third parties within one year (12 working months);**
- o. **(#2 figure variable);**
- o. **(#3 figure variable).**

2. Solid Waste Sector

a. **Street Sweeping consists of three figure variables to be filled,** i.e. :

- o. **Length of street sweeper by third parties (in m')'**
- o. **Average street width sweeper by third parties (in m').** Measuring street width include width of the pavement (right left), width of the green median (if existing), and width of street sweeper (right left).
- o. **Service fee offered to third parties (in Rupiah for every m^2 of street area sweeper in one month).** Calculation of this unit cost is based on the POMMS system, adjusted as necessary to the local street design characteristics.

b. **(Proposed). The transfer stations consists of two figure variables,** i.e.:

- o. **Total solid waste volume collected each day by the related location (in m^3)**
- o. **(figure variable # 2)**

c. **Solid waste transport from LPS to LPA/LPS and to LPA Transportation consist of three figure variables,** i.e:

- o. **Amount of solid waste transported by third parties each days (in m^3).** The solid waste handled by third parties does not include the solid waste originating from sweeping work. This is being so in order to avoid double counting in calculating unit cost for each m3 of solid waste transported;
- o. **Number of service operation by third parties in one year (in yearly working days);**

o. **Service fee offered to third parties (in Rupiah for each m3 of solid waste transported).** The calculation should be based on the POMMS system with the necessary adjustment. In general, calculation for the transport cost consists of transport since the household, transport cost using lorries up to LPA, and cost incurred at LPA (dislodging solid waste and levelling solid waste at LPA locations).

d. **Direct transport from LPS to LPA by large companies (industry) of which the figure variable is similar to item c) above.** Since the large companies are spending their own funds for the work, it is necessary to find out the rupiah value amount according to the minimal unit cost standard normally applied by the regional agencies or customarily in use by other third parties.

e. **Composing, donsists of three figure variables :**
   o. **Total volume of solid waste processed by third parties each day (in m^3);**
   o. **Total operation day for composing in one year (in yearly working days);**
   o. **Cost for Composing each m^3 solid waste processed. There are two things to be noticed in the cost calculation, firstly expenses required for fetching and sorting solid waste as raw material for compost, and secondly the process of compost production.** In the case of the first one, the total volume of solid waste used for raw material needs to be known. Then the fetching method of solid waste to be used as compost raw material, whether they are fresh solid waste or those dumped for a certain period. In the case of the second one, the compost production process, where it has to be determined whether the cost standard to be applied in calculation is cost for genuine compost production(without additional content elements) or in the form of compost such as fertilizer (by adding a number of additional elements, as demanded by the market).

3. Sanitation Sector/Dirty water,

a. **The Septic Tank Dislodging lorry for this there are two alternatives for monitoring indicators,** firstly based on human waste volume (in m3) and secondly, based on the fee for each trip call (in trips). The application thereof depends on the service activities situation in the related city. For the first alternative, the figure variable comprises of 3 items, i.e.:

   o. **Total human waste/dirty water sucked (emptied) each year (in m^3).** In general, the data/information on human waste volume sucked are not available at the related agencies. On the other hand, data originating from third parties sometimes do not reflect the reality(seen from size of revenue). This situation is unavoidable, except by way of improving the data and yearly evaluation;
   o. **The average total of human waste sucked for every trip (in m^3).** The size of the lorry used will determine the volume capacity. For more simplicity, the lorry flee average volume will be applied, in m^3;
   o. **The average fee for sucking for each septic tank in accordance to the volume capacity (in Rupiah for each trip).**

The second alternative consists of two figure variables, i.e :

o. **Total trip calls in one year.** The calculation will use under this alternative will assumes that each lorry called will move directly to the location where the human waste are thrown (LPT), notwithstanding the lorry capacity.

o. **Average fee for sucking each trip call (in Rupiah for each trip call).** This fee should be higher than the first alternative,because the lorries are moving directly to the dumping location and the fact that the lorries may not loaded 100% full.

Appendix D

Contact Persons related to the Private Sector Participation

Semarang Municipality :

1. Mr. Wasis, Kabid Fisik dan Prasarana, Bappeda
   Tel: (024) - 541095 (direct call)
   (024) - 513366, ext. 1240, 1255

2. Mr.Sudjaatmiko, Kasie Penanggulan Kebersihan,
   Mr. Haryono, Ka.Subsie Kebersihan Jalan dan Lingkungan,
   Mr. Zubaedi, Ka Subsie Pemusnahan Sampah
   Tel: (024) - 513366, ext. 1283

3. Mrs.Ir.Atiek Sitawati, Urusan Participasi Swasta, PDAM Semarang
   Tel. 024-315514

4. Mr.Ir.Slamet Riyadi, Ka.Bagian Perkotaan, Kantor Sekwilda,
   Mr.Budi Tjahyanto, SJ, Kasubag. Keagrarian,
   Mr.Tridjoko Suwahyo, SH., Kasubag.Administrasi Kota,
   Tel:(024)-513366,515871, ext.1340,1341,
   Fax: (024)-542522

Yogyakarta Municipality :

1. Mr.Budi, Ka.Bappeda Kodya Yogyakarta,
   Tel.(0274)-5207,5865,5866, ext.320

2. Mrs.Ir.Asyantini, Ka.Dinas Kebersihan dan Pertamanan,
   Tel (0274)-5871 (direct call)
   Mr.Hendri and Mr.Anung, Staff related to Street Sweeping by Private Sector.

Medan Municipality :

1. Mr.Budi Sinulingga, Ka.Bappeda Kodya Medan,
   Mr. Syamsul Bachri, Kabid. Fisik dan Prasarana, Bappeda
   Tel: (061) .....

2. Mr. DOP Nainggolan, Dir.Utama PD Kebersihan Kodya Medan,
   Mr.Hasnan Said, Dir.Operasi PD Kebersihan,
   Tel : (061) - 537022

3. Mr.Drs.H.A.Thaib, Kabag.Keuangan, PDAM Tirtanadi,
Mr.Ruslansyah, Bagian Umum, PDAM Tiortanadi,Kodya Medan,
Tel: (061)-325771,325888(telex),Fax (061)-51848

Bandung Municipality

1. Mr.Ir.Enan, Ka.Bappeda,Kodya Bandung
Mr.Dipo, Kabid.Statistik dan Pelaporan, Bappeda,
Mr.A.Hidayat DJ, Kabid.Penelitian, Bappeda Kodya Bamdung,
Tel (022) - 431929

2. Mr.Ir.Ibrahim, Direktur Utama PDAM Tirta Dharma,
Drs.H.Suwanda, Kabag.Keuangan, PDAM,
Mr.Eddy Rukmana AS, Kasie Kas, Bagian Keuangan PDAM,
Tel:(022) - ....

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