



THE INDONESIA WATER REVOLVING FUND



FEBRUARY, 2006

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THE INDONESIA WATER REVOLVING FUND ASSESSMENT OF FEASIBILITY (INTERIM REPORT)

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LIST OF ACRONYMS

Abbreviations

ADB	Asian Development Bank
APBD	Anggaran Belanja dan Pendapatan Dearah (regional government budget)
BAPEPAM	Badan Pengawas Pasar Modal (Capital Market Supervisory Agency)
BAPPENAS	Badan Perencanaan dan Pembangunan Nasional (National Planning Board)
BLU	Badan Layanan Umum (public service agency)
вот	Build, Operate and Transfer
BPD	Bank Pembangunan Daerah (local government development bank)
BUMD	Badan Usaha Milik Daerah (state-owned company)
DAU	Dana Alokasi Umum (general allocation of funds)
DCA	Development Credit Agreement
DPRD	Dewan Perwakilan Rakyat Daerah (local parliament)
ESP	Environmental Services Program
FOREX	Foreign exchange
GOI	Government of Indonesia
IBRD	International Bank for Reconstruction and Development
IDR	Indonesian Rupiah
IWRF	Indonesia Water Revolving Fund
MDG	Millennium Development Goal
MoF	Ministry of Finance
MoHA	Ministry of Home Affairs
MDG	Millennium Development Goal
MPW	Ministry of Public Works
NGO	Non-governmental organization
O&M	Operations and maintenance
PDAM	Perusahaan Daerah Air Minum (local government drinking water company)
PerMendagri	Peraturan Menteri Dalam Negeri (regulation by the Minister of Home Affairs)
PERPAMSI	Persatuan Perusahaan Air Minum Seluruh Indonesia (Association of Indonesian
	Water Companies)
PPP	Public-private partnership
RDA	Regional Development Account
RPD	Rekening Pinjaman Daerah (regional Ioan account)
SLA	Subsidiary Loan Agreement
USAID	United States Agency for International Development
US\$	United States Dollar
UU	Undang-undang (law)
WRF	Water Revolving Fund

Definitions

A consortium of firms that was awarded consultancy service for the Project
Project Environmental Services Program (ESP)
A provincial government or district government (kabupaten or kota)
A kabupaten or kota

Exchange rate US\$ = IDR 10,000

EXECUTIVE SUMMARY

I.I. BACKGROUND

Introduction. This document summarizes a proposal for a new financing mechanism for the water and sanitation sector, referred to as the Indonesia Water Revolving Fund (IWRF). The purpose of the IWRF is to improve access to long-term financing to providers of water, sanitation and other environment-related services. The proposal was prepared by the Environmental Services Program (ESP) for review by central government ministries, regional governments (RGs) and other prospective stakeholders in the fund.

The Environmental Services Program (ESP). ESP is a fifty-eight month program funded by the United States Agency for International Development (USAID) and implemented under the leadership of Development Alternatives, Inc. ESP works with central government, regional governments, private sector, NGOs, and other stakeholders to expand access to clean water and sanitation services. It fouces on seven High Priority Integrated Provindes: Nanggroe Aceh Darussalam, North Sumatra, West Sumatra, East Java, Central Java, West Java/Jakarta and Banten. ESP also supports a limited set of activities in four Special Imperative Areas: Balikpapan, Manado, Manokwari and Jayapura. Among other technical services, ESP provides:

- **Integrated assistance** in water resource management at both the watershed level and water utility level.
- Mobilization of **corporate finance** for water utilities and **alternative finance** for watershed management.

Introduction to the Indonesia Water Revolving Fund

What is a revolving fund? There is no single definition of a revolving fund, but the general idea is a financial intermediary with the objective of co-financing infrastructure projects for participating regional governments. In the United States, revolving funds are state-sponsored entities that assist regional governments by providing access to financial markets, along with various forms of direct and indirect support. The primary goal of a revolving fund is to lower the cost of funds and improve credit terms for regional governments and their enterprises. As their use has spread, revolving funds have evolved to serve as a point at which various forms of credit enhancement (such a credit risk guarantees and revenue intercept mechanisms) have been applied, thereby increasing the benefits of the fund.

Rationale for the Indonesia Water Revolving Fund. The IWRF is designed to:

- Assist the Government of Indonesia with achieving its Millennium Development Goal to halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation; this requires an annual increase in investments in the water and sanitation sector from US\$ 50 million to US\$ 450 million.
- Assist GOI with achieving its goal to ensure that all piped water providers supply potable water by 2008, in conformance with PP16/2005.
- Assist water service providers to access to long-term financing at attractive terms. Credit enhancements would lower risks to private financiers and the economies of scale of a nation-wide revolving fund would enable the IWRF to consolidate smaller

loans into a size that is more readily marketable and adaptable to the credit and capital markets.

• Assist GOI with its recent efforts to develop a fully-fledged municipal bond market.

Complementarity with exsiting fund channeling mechanisms. Since the 1980s, the Ministry of Finance has been managing a revolving fund dedicated to financing public infrastructure in regional governments (the Regional Development Account or RDA). Most investments by the fund have been financed from the proceeds of World Bank and ADB loans. The IWRF is designed to mobilize domestic private finance for water and sanitation services, not as an alternative fund channeling mechanism to the RDA.

Rationale #1 – Financing gap in the water and sanitation sector

Access to safe drinking water. At present, less than 40 percent of all households in Indonesia have access to safe water. To achieve the Millennium Development Goal (MDG) of providing 69 percent of the population with safe drinking water by 2015, Indonesia needs to invest at least US\$ 4.5 billion over the next ten years (or US\$ 450 million per year). Figure I overleaf shows that investments were in the order of US\$ 50 million per annum, or just ten percent of the amount needed to achieve the stated goal. In addition, the Government of Indonesia has recently issued an implementing guideline (PP16/2005), with provisions requiring all water utilities to supply potable water by 2008. At present, few (if any) utilities meet this target. It is clear that the Government will have trouble meeting its goals without improved access to credit of its water utilities.

Environmental management. MDG also includes Target #9, which commits the government to improve the environment, and increase its expenditures on watershed management and facilities that clean and recycle waste (such as treatment of wastewater and solid waste). It is not clear how much the government currently dedicates to this target or how much it will do so between now and 2015. It seems obvious, however, that significant improvements to the environment are not possible at current expenditures levels.



Figure I Current condition vs. Millennium Development Goal #7

Source: ESP, based on Ministry of Public Works (2005)

Rationale #2 – Limited availability of long-term financing

Public funds. At present, the central government only provides long-term financing for water supply infrastructure through the Regional Development Account (RDA) in the Ministry of Finance. This facility, however, has some distinct disadvantages for PDAMs:

- Not directly accessible by PDAMs (but only by regional governments).
- Not accessible by all RGs in the country (but only by those specifically designated by and declared to be eligible for donor-funded programs).
- Slow to process sub-loan agreements, which may take more than one year.

Private funds. Having access to commercial credit is particularly important for direct investments in water utilities or, for that matter, indirect investment through public-private partnerships. Private investors are interested in larger BOT-type arrangements, preferably in areas with an established demand for water, but they cannot invest in these if banks are unwilling to lend to them.

Commercial bank loans. Commercial banks (private or state-owned) are limited in their ability to match long-term loans with long-term deposits, and therefore unwilling to extend loans with maturities beyond 5 to 7 years. They are, in any event, reluctant to lend to PDAMs without a regional government guarantee. However, a regional government is by law not allowed to issue guarantees nor can it offer its revenues or assets as collateral to a bank. In addition, few banks have experience with financing water supply or environmental infrastructure.

An unsatisfactory alternative – financing long-term loans from short-term

internal revenues. Without access to central government funds, commercial bank loans and private investment, most regions rely on PDAM internal revenue generation or equity injections to finance investments in piped water or other environmental services. Even if an investment project under consideration is financially feasible, PDAMs and regions normally do not have the liquidity required to finance the construction of a costly water supply systems that would only reach break-even point after a number of years.

Rationale #3 – Assist in the development of a fully-fledged municipal bond market

Improving access to the municipal bond market. The Ministry of Finance is actively encouraging the development of a municipal bond market. Because few (if any) financiers and no regional governments have experience with municipal bonds, and because access to the municipal bond market is likely to be restricted to a small number of regions (such as Jakarta and Surabaya), this financing mechanism would normally remain beyond the reach of most providers of piped water and sewerage systems. The credit enhancement mechanisms of the IWRF would allow a larger number of regions to issue bonds through the revolving fund.

A closer look at the Indonesia Water Revolving Fund

Profile. The salient features of the IWRF can be summarized as follows:

- <u>Ownership</u>: central government (< 49%) and regional governments (> 51%).
- <u>Enabling framework</u>: a not-for-profit, tax-exempt Trust under prevailing laws and regulations.

- <u>Organization</u>: a board of commissioners, with central and regional representatives, to monitor to implementation of a contract with a professional fund manager (an Indonesian commercial or investment bank).
- <u>Products</u>: long-term loans for water, sanitation and other environmental services.
- <u>Markets</u>: regional governments, including providers of piped water and sewerage (and, in the medium term, solid waste management and watershed management).
- <u>Dividend policy</u>: the IWRF will issue interest-bearing debentures in return for financial participations; all profits will be reinvested in the capital fund.

Ownership and enabling framework. The IWRF would be established as a not-forprofit, tax-exempt Trust by: (i) regional governments willing to subscribe to participation certificates; and (ii) the Government of Indonesia. Initially, only the fifty most creditworthy RGs in the country would be invited to participate. Other RGs may join the fund at a later date, provided that they meet IWRF membership criteria. To ensure that regional interests remain protected, the Trust's enabling documents would stipulate that central government agencies should not control more than 49 percent of voting rights.

Organization. The day-to-day management of the IWRF would be contracted out to an Indonesian investment or commercial bank, capable of bringing professional management practices to the operations of the fund. Participants in the IWRF would manage the contract of the Indonesian bank through the Board of Commissioners, but otherwise not be involved in the operations of the fund.

Products and markets. The IWRF would offer long-term loans (up to fifteen years) to its regional participants (or environmental service providers owned or appointed by these participants) according to regulations agreed upon by the Board of Commissioners. The IWRF would finance investments in piped water supply, watershed management and other environmental infrastructure (such as sanitation and solid waste management).

Unique features of the IWRF. The proposed mechanism stands apart from previous attempts to address financial problems in the water supply sector, because:

- The IWRF would be controlled by regional governments.
- The IWRF would finance investments in watershed management programs, sanitation and solid waste facilities, not only just water supply.
- The IWRF would finance activities of all providers of water supply services (not just PDAMs, but also public-private partnership, and RGs themselves).
- Economies of scale would allow the IWRF to consolidate many smaller loans into a size that is more readily marketable and adaptable to the credit markets while lowering the management and administration cost per unit of amounts borrowed.

The IWRF - how does it work?

Step I: Establish the capital base. The Government of Indonesia and regional governments would provide resources to establish a capital fund in return for voting rights in the IWRF on the appropriate legal basis. Initially, only the fifty most creditworthy regional governments in the country would be invited to participate. It is assumed that each of these 'first tier' regional governments would contribute IDR 5 billion to the IWRF Capital Fund, resulting in a total contribution of $(50 \times 5 =)$ IDR 250 billion. GOI would match this contribution, so that central and regional governments would provide IDR 500 billion (or US\$ 50 million) to the initial capital base of the fund.

Step 2: Enter into co-financing arrangements with bilateral and multilateral lenders. JBIC has indicated, in principle, its interest to co-finance loans with the IWRF, thereby enabling the fund to leverage the financial participations of GOI and participating regional governments. Under the U.S.-Japan Clean Water for People Initiative, launched at the World Summit on Sustainable Development in 2002, the partnership between both governments is designed to provide safe water and sanitation to the world's poor and builds upon existing U.S. and Japanese activities in water resources management for developing countries. Other bilateral and multilateral lenders may also be interested in co-financing arrangements with the IWRF. Assuming that JBIC will match the contributions of central and regional governments, the IWRF would initially be capitalized at $(2 \times 50 =)$ US\$ 100 million (see Figure 2). Bilateral and multilateral loans would be channeled to the IWRF through MoF, in conformance with prevailing regulations.

Step 3: Enter into co-financing arrangements with domestic commercial banks. Domestic commercial banks will be invited to match the contributions of the IWRF Capital

Fund. Such co-financing arrangements would allow the IWRF to further leverage its capital base. Assuming that banks would co-finance 50% of a project with the IWRF Capital Fund, the fund would be able to mobilize $(2 \times 100=)$ US\$ 200 million in capital. Stated differently, an investment in participation certificates of IDR 250 billion would enable 'first tier' regional governments to mobilize to IDR 2 trillion in loans (a leverage ratio of 8:1). Commercial banks loans could either be channeled through the IWRF or directly to the borrower, co-financed with the IWRF.



Figure 2 Fund channeling options (example)

Source: ESP

Credit enhancement mechanisms. The IWRF would extend long-term loans that are sourced from the IWRF Capital Fund (including bilateral/multilateral bank loans) under co-financing arrangements with commercial banks. The fund would reduce risks to commercial financiers by using the following credit and liquidity enhancements (see Figure 10 for an overview):

- i. Credit guarantees from the U.S. government (DCA) and other foreign donors.
- ii. The IWRF Reserve Fund, which acts as a liquidity guarantee to commercial banks.
- i. A trustee, appointed by lenders for every loan transaction, whose function is to represent the interests of the creditors by controlling assigned collateral.

Refer to Figure 3 overleaf for an overview of IWRF lending operations. Key stakeholders and financiers

A multi-stakeholder approach. Various parties will be involved in financing IWRF-backed loans, the most important being:

- The Government of Indonesia.
- Regional governments.
- Foreign donors.
- Indonesian commercial banks.
- Bond holders (in the long run).





Source: ESP

Central governments. It is envisaged that the Government of Indonesia would financially contribute to the IWRF as a means toward achieving the Millennium Development Goals. Potential sources of such contributions are: (i) earmarked state budget allocations; (ii) specific allocations from the development budget; and (iii) foreign-funded loans and grant passed on to the IWRF.

Regional governments. Regional governments interested in participating in IWRF would need to subscribe to participation certificates in return for access to IWRF-backed loans. Access to financing would be provided in proportion to the financial participation of the individual regional participant, possibly as earmarked regional budget allocations. Foreign donors may be willing to co-finance investments in participation certificates.

Foreign donors. Donor agencies would support the IWRF through:

- Co-financing of reserve capital.
- Co-financing of start-up, capitalization and feasibility studies.
- Lowering credit risks on long-term loans through sovereign guarantees.

As mentioned earlier, JBIC has indicated its in principle interest to co-finance loans with the IWRF. The U.S. government is willing to guarantee up to 50 percent of principal for bankable projects through an instrument known as the DCA guarantee. The IWRF would use this instrument to attract long-term financing for its regional participants, either by leveraging its capital base or by co-financing with one or more Indonesian commercial banks.

Indonesian commercial banks. It is envisaged that commercial banks would play a major role in financing long-term loans through the IWRF, which is more attractive to a bank than extending a loan to an individual regional government, because:

- The IWRF pledges its full faith and credit to the repayment of the loan.
- The IWRF would be organized as a cooperative financial institution, so that 'peer pressure' would lower the risk that a loan to an individual participant in the IWRF would become non-performing.
- The IWRF will have a larger capital base than a single region.
- Through the IWRF, a creditor would be able to obtain a DCA or other appropriate credit guarantee.

Bond holders. In the long run, the IWRF may use its credit enhancement mechanisms to issue 'pooled' bonds on behalf of its members. The resulting economies of scale would enable smaller regions to access the bond market at a relatively low cost, in return for an acceptable coupon rate.

How do regional governments benefit from participating in the IWRF?

Benefits. The direct benefits to participating regional governments are:

- <u>Opportunity to leverage internal revenues</u>. Because the IWRF Reserve Fund protects private financiers against losses from non-performing loans, commercial banks would be willing to extend loans that exceed the reserves by a substantial margin.
- <u>Access to commercial bank financing</u>. The availability of credit risk guarantees further limits credit risk to a commercial bank. The IWRF could use the instrument to attract long-term loans (with maturities up to fifteen years) by either by leveraging its capital base or co-financing the loan with one or more Indonesian banks. In addition, the IWRF can consolidate many smaller loans into a size that is more readily marketable and adaptable to the credit markets.
- <u>Attractive terms of credit</u>. Interest rates on 'IWRF-backed' loans would be lower than interest rates charged by commercial banks, as : (i) credit risk guarantees would lower credit risks; (ii) the IWRF would enable banks to better match assets and liabilities; and (iii) because of its tax-exempt and non-for-profit status, the required return on IWRF capital is lower than the return required by commercial banks, so that blending the two sources lowers the average cost of capital. In addition, the economies of scale of the financial transactions of the IWRF can lower the management and administration cost per unit of amounts borrowed.
- <u>Access to the domestic bond market</u>. In the long run, the IWRF may also increase its lending base through the proceeds from the sale of IWRF bonds. Because of its substantial capital base, the IWRF would be able to place bonds with lower coupon rates and longer maturities than an individual regional government.

- Integrated approach to financing, planning and project execution.
- <u>Access to supporting services</u> The IWRF can provide technical assistance and training and act as a logical focal point for its application.

Envisaged development of the IWRF

Short term (2006).

- Conduct a detailed feasibility study.
- Establish a dialogue with regional governments (including their national organizations) and the Government of Indonesia to establish the IWRF.
- IWRF to establish cooperation with regional government-owned banks and commercial banks to facilitate and implement on-lending of long-term loans for water and environmental infrastructure to eligible borrowers.

Medium and long-term (2007-2016).

- Invite other regional governments to financially participate in the IWRF.
- Expand the IWRF capital base through additional investments in participation certificates, GOI grants, bilateral and multilateral funds, and bond proceeds.
- Provide long-term investment loans to eligible borrowers for feasible water and environmental infrastructure projects.

I. INTRODUCTION

I.I. BACKGROUND.

In 2002, the Government of Indonesia committed itself to Millennium Development Goal #7 and pledged to halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. To achieve this goal, annual investments in the water and sanitation sectors need to increase from US\$ 50 million to US\$ 450 million over the next ten years. To help the Government improving the delivery and financing of environmental services, USAID is funding a five-year technical assistance program under the leadership of Development Alternatives Inc, called 'the Environmental Services Program'. ESP works with central government agencies, regional governments, municipal water utilities, private enterprises and other stakeholders to expand access to water and sanitation services. Unlike most other donor-funded programs, ESP provides:

- **Integrated assistance** in water resource management at two levels, namely: (a) at the watershed level, where quantity, quality, flow of water and its distribution amongst users are primary concerns; and (b) at the water utility level, where bulk water supply, water treatment facilities, systems expansion including improvements in operational efficiency are primary concerns
- Mobilization of **corporate finance** for water utilities and **alternative finance** for watershed management.

I.2. OBJECTIVES AND SCOPE OF WORK

I.2.1. OBJECTIVE

The primary objective of this study is to assess the feasibility of establishing a sustainable funding mechanism that could leverage domestic public and private sector financing. The purpose of this fund (hereafter also referred to as the 'Indonesian Water Revolving Fund' or IWRF) is to improve access to long-term financing to providers of water and sanitation services, by providing such providers with:

- A mechanism to leverage internal revenues.
- Access to commercial bank financing.
- Competitive terms of credit.
- Access to the domestic bond market.
- An integrated approach to financing, planning and project execution.

I.2.2. SCOPE OF WORK

To achieve the study objective, the Consultant will:

• Determine the proposed key services that could be offered by such a fund and who would be, or potentially might be, its main competitors in the offer of such services, and determine in what way could such an IWRF augment the capacity of the capital

markets and its participants to improve the sophistication of the fixed income security markets.

- Determine the status of the legality of the following financial instruments and any special constraints, legal or otherwise, which bear on issuance of instruments that the IWRF would structure, underwrite or co-finance: (i) municipal bonds; (ii) pooled bonds; and (iii) securitizations; specifically with regard to such offerings, opine on the ability of a region to secure its bond issuance through 'financial intercepts' i.e., collateralizing an offering with central government transfers.
- Determine what other preconditions must exist in the market to make the IWRF successful. determine the availability of partial credit guarantees from USAID for first few offerings e.g., through the DCA mechanism and domestic credit enhancement, and determine if existing credit enhancement mechanisms could be used to guarantee financial instruments offered by the IWRF, including non-recourse securitizations.
- Explain how the structure of offerings is envisioned (pooled bonds, securitizations, municipal bond underwriting, etc.) to maximize the potential for successful offerings by the IWRF.
- Assess whether municipalities are now able to issue bonds or debt of any kind under UU33/2004 or KMK35, as it is currently being revised.
- Outline options for how an IWRF could be designed that: (i) will respond to the needs of water utilities; (ii) could work within the ambit of existing laws; (iii) is consistent with overarching policies of government, including its efforts to meet Millennium Development Goals (MDG); and (iv) takes into account the existing policy and institutional lessons learned from similar international experiences;

Recommend on the design framework under which the IWRF will become feasible and recommend measures to address.

I.3. STATUS AND CONTENTS OF THIS REPORT

I.3.I. STATUS

This Interim Report is a draft. It will be reviewed by a USAID steering committee in Jakarta and presented to a wider audience of central and regional government representatives in January 2006. The comments of the reviewers and attendants will be incorporated in the final version of the report, to be submitted by mid-2006.

1.3.2. SUMMARY OF CONTENTS

Chapter 2 gives an overview of the water and sanitation sector in Indonesia, estimated investment requirements to meet MDG #7, and sources of funding that are currently available to finance the required investments. Chapter 3 summarizes the key features of a revolving fund, with reference to international and Indonesian practices. Chapter 4 presents design options for an Indonesia Water Revolving Fund, explicitly taking legal, institutional and political constraints into consideration. Chapter 5 presents conclusions and recommends actions that need to be taken to further develop the IWRF concept.

2. FINANCING WATER AND SANITATION IN INDONESIA

2.1. BACKGROUND

In 2002, the Government of Indonesia committed itself to achieving Millennium Development Goal (MDG) #7, known as 'Ensuring Environmental Sustainability'. As a means to achieve this goal, GOI pledged to halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. This chapter gives a brief overview of the water and sanitation sectors in Indonesia, estimated investment requirements to meet MDG #7, and available sources of funding to finance the required investments.

2.2. WATER AND SANITATION IN INDONESIA

2.2.1. CURRENT SERVICE LEVELS

I. Water

Most *kabupaten* and *kota* governments own a drinking water company (PDAM), which provides piped water to domestic and small-scale commercial users. In 2004, PDAMs operated 6.4 million connections, which served approximately 17 percent of the population. About 55 percent of all households source water from pumps and wells. The remaining 28 percent relies on small-scale community-based systems and private water vendors (see Table 1). In many areas, especially in Java, groundwater abstraction has reached unsustainably high levels. Because of a continuing increase in industrial effluents and wastewater discharge, the quality of water resources is rapidly deteriorating.

Service provider	Delivery mechanism	Coverage	
PDAMs	Piped water	17%	
Households	Individual pumps and wells	55%	
Community-based providers	Shared pumps and wells	23%	
Private enterprises	Sale from tanks and bottles	5%	
Total		100%	

Table	I.	Providers	of	water	supply	services
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Source: Ministry of Public Works (2005)

2. Sanitation

Indonesia has one of the lowest rates of sanitation infrastructure in the world. Less than I percent of the population has access to sewerage networks, which served about 200,000 urban households in 2004. According to a nationwide household survey undertaken in 2000, about 80 percent of population relies on septic tanks and pit latrines for human waste discharge. Over ten million households, or 20 percent of the total, are currently not served by some form of on-site sanitation. A large portion of the rural population, as well as low-

income households in urban areas, discharge human waste directly into rivers, lakes and open space. The resulting contamination of surface and groundwater has led to high incidences of faecal-borne diseases and environmental degradation of water sources, especially in densely populated areas. In 1999, the ADB estimated the economic cost of wastewater pollution at almost US\$ 50 billion per year.

Service provider Delivery mechanism Coverage			
	Delivery mechanism	Coverage	
PDAMs and regional government agencies	Sewerage networks	< 1%	
Community-based providers	Communal toilets, neighborhood sewerage networks	< 1%	
Households	Septic tanks, pit latrines	80%	
Total	•	80%	

Table 2 Providers of sanitation services

Source: Ministry of Public Works (2005)

2.2.2. DESIRED SERVICE LEVELS

I. Required Investments To Meet Millennium Development Goal #7

To halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation, Indonesia needs to invest at least IDR 45 trillion (or IDR 4.5 trillion per year) over the next ten years in piped water supply systems. The amount would be substantially higher if investments in basic sanitation were included. In addition, the Government of Indonesia has recently issued an implementing guideline (PP16/2005), requiring all water utilities to supply potable water by 2008. At present, few (if any) utilities meet this target. According to a recent study by the Ministry of Public Works, investments in water infrastructure are currently in the order of IDR 450 billion per year (US\$ 45 million), or just ten percent of the amount needed to achieve the stated goal (see Table 3). Stated differently, the 'financing gap' in the water sector is estimated at US\$ 400 million per year.

Indicator	Current state (2005)	MDG goals (2015)	% Target achieved (MDG=100)
Population served (million)	41	150	27
Coverage ratio	39% /a	69%	57
Production capacity ('000 m ³)	94	180	52
Connections (million)	7	25	28
Investment	IDR 450b /year	IDR 4500b /year	10

Table 3 MDG goals related to safe drinking water

Source: Ministry of Public Works (2005) /a Of which 17 percent by piped water supply systems

2. Rationale For Investing In Piped Water And Sewerage Systems

To improve access to safe drinking water and basic sanitation, the Ministry of Public Works has planned for a substantial increase in the coverage of piped water systems and sewerage networks, the main reasons being:

• <u>Efficiency</u>: economies of scale allow a water utility to provide piped water at a far lower cost than a jet-pump or a private water vendor.

- <u>Affordability</u>: piped water is five to ten times cheaper than water from alternative sources of water (a similar argument applies to sewerage networks vs. septic tanks).
- <u>Environmental benefits</u>: the provision of piped water supply systems and sewerage networks with appropriate treatment facilities would allow the government to mitigate the negative impacts of groundwater abstraction and wastewater discharge.

It is likely that PDAMs will continue to play a major role in providing piped water service systems and sewerage networks. There are, however, other institutional options available.

2.2.3. INSTITUTIONAL ARRANGEMENTS FOR PIPED WATER SERVICES AND SEWERAGE NETWORKS

I. Providers of piped water services and sewerage networks - an overview

At present, piped water supply systems and sewerage networks are delivered by regional government agencies or PDAMs. In a few cases, PDAMs operate piped water supply systems in partnership with private enterprises. The central government is encouraging the provision of piped water through public service agencies (*Badan Layanan Umum* or BLUs) and regional water utilities.

	Piped water systems	Sewerage networks	
Current	PDAMs, public-private partnerships (PPPs)	PDAMs, regional government agencies	
Under consideration	Public service agencies (BLUs), regional water utilities	(none)	

Table 4 Providers of piped water services and sewerage networks

Source: ESP

2. PDAMs

In 2004, 311 of 440 kota and kabupaten in Indonesia owned a drinking water company (*Perusahaan Daerah Air Minum* or PDAM). PDAMs provide piped water to domestic and small non-domestic water users, but do not have the capacity to serve large-scale industrial users, who mainly depend on bulk water and groundwater. Most PDAMs operate a main system in the regional capital and several smaller systems in district capitals (*Ibukota Kecamatan* or IKK). Coverage ratios are low in rural areas (less than 30 percent), but over 50 percent in urban areas where incomes are higher and alternative sources of water more expensive. Some PDAMs also operate water tankers (*truk tanki*), which sell water to households in areas not connected to the distribution network. In 2004, three PDAMs operated a sewerage network.

3. Public-private partnerships

At present, about 15 piped water supply systems are managed by PDAMs in partnership with private enterprises, and another 15 to 20 PDAMs are negotiating proposals with domestic and foreign private investors. In this report, the term 'public-private partnership' (PPP) is used to refer to all possible contractual arrangements between a public and a private party, except full privatization. This form of private sector participation, which involves the sale of assets from the government to a private sector party, is unconstitutional in Indonesia and will not be mentioned hereafter.

4. Local government agencies

Three sewerage systems are managed by agencies that form part of the regional government administration. Piped water is currently not provided by regional government agencies, although MPW is encouraging regions to establish so-called BLUs to provide piped water to currently unserved areas.

5. Public service agencies (Badan Layanan Umum)

In June 2005, the Minister of Law and Human Rights enacted Implementing Regulation 23/2005, which allows regions to establish so-called *Badan Layanan Umum* (BLU). The purpose of such agencies is to provide public services along commercial lines but without a profit motive. (As such, it is comparable to existing regional government agencies, such as local hospitals and bus terminal operators.) A BLU is not an independent legal body, but forms an integral part of the regional government apparatus. This means that it cannot borrow in its own right or establish a joint-venture with another water utility. In other words, the losses of a BLU must somehow be covered by the regional government of which it is part. Although BLUs may develop into a useful vehicle to finance water supply systems in isolated rural areas, where full cost-recovery is not feasible, it is unlikely that such agencies will play a major role in closing the financing gap of US\$ 400 million per year.

6. Regional water utilities

International experience suggests that the minimum size of a water utility is 50,000 to 100,000 customers (ADB, 1997). In 2004, there were 22 PDAMs in Indonesia that met this criterion. Most of the other 289 PDAMs in the country operate fewer than 25,000 connections (see Table 5). Their networks usually consist of several smaller systems, many of them not serving more than a few hundred customers. The central government recognizes that regionalization of water utilities may result in significant economies of scale (especially in densely populated areas) and is therefore promoting re-grouping of PDAMs to create larger water utilities. Because most regional governments have proven reluctant to give up control of their PDAMs, this strategy has thus far not been implemented (with the exception of the Greater Medan Area).

Size class	PDAMs	<u>Connections</u>			
(# connections)		Total ('000)	% Total		
> 50,000	22	2,877	45		
25,000 - 50,000	30	I,038	16		
10,000 - 25,000	103	1,612	25		
< 10,000	150	812	13		
Total	305	6,440	100		

Table	5	PD/	AMs	in	Indor	nesia	bv	size	class.	2004
abic			-113		muor	ic sia	~	JILC	ciass,	2004

Source: PERPAMSI (excl. 6 PDAMs for which data were not available)

7. Conclusion - regional governments play a pivotal role

As shown in Figure 4, regional governments are involved in all institutional options for providing piped water or sewerage networks, either directly (through the regional government apparatus) or indirectly (as owner of a PDAM, partner in a PPP or shareholder in a regional water utility). As will be shown later in this chapter, regional governments are unable to close the 'financing gap' without external sources of funding. This means that sources of financing for investments in the water and sanitation sector will need to be channeled, in full or in part, through regional governments.



Figure 4 Institutional arrangements for piped water and sewerage systems

Source: ESP

2.3. MECHANISMS FOR FINANCING INVESTMENTS IN WATER AND SANITATION

2.3.1. FUNDING SOURCES

To finance the required investments in piped water systems and sewerage networks, regional governments have a variety of funding sources at their disposal. These are: (i) tariff revenues; (ii) regional government revenues; (iii) central government grants and loans; (iv) foreign private sector investment; (v) domestic private sector investment; (vi) multilateral bank financing; (vii) commercial bank financing; and (viii) municipal bonds.

2.3.2. TARIFF REVENUES

- <u>Piped water supply</u>. For political reasons, most PDAMs charge tariffs that are far below full recovery-levels and are barely able to cover their operating expenditures. In 2004, over 80 percent of PDAMs were unable to service their outstanding loans or finance the replacement of existing systems (see Annex I for an overview of PDAM debts). Some PDAMs have even declared themselves bankrupt and are no longer operational. In most cases, substantial tariff increases would be required to allow PDAMs to finance replacement expenditures. Because this process will take many years, tariff revenues cannot be considered as a significant source of funding for expansion of piped water systems in the short and medium term.
- <u>Sewerage networks</u>. Worldwide, few governments impose full cost-recovery tariffs for the usage of sewerage networks, partly in recognition of substantial positive externalities (such as health and environmental benefits). In view of political of social implications, it is not realistic to expect regional governments to introduce full cost-recovery tariffs any time soon. At best, regional government may be prepared to impose tariffs that cover O&M costs. This means that a region would need to mobilize additional funding sources to cover the investment cost and, at least initially, part of the cost of operations and maintenance.

2.3.3. REGIONAL GOVERNMENT REVENUES

Most regions heavily depend on central government transfers, of which shared tax revenues and the general allocation (*Dana Alokasi Umum* or DAU) are the most important. In 2003, revenues from local taxes and service charges accounted for less than 10 percent of total receipts. Borrowings and other revenues were negligible. Regional governments allocated, on average, about 70 percent of total revenues to finance routine expenditures (such as wages and maintenance). The remainder (estimated at IDR 27 trillion) was available to finance development expenditures, including new investments in water and sanitation services. Most regions also routinely report positive cash balances. At first sight, it seems that regional government may finance a major portion of the required investments in piped water and sewerage systems. For various reasons, this is unlikely to be the case, the main reasons being:

- water and sanitation services compete with other sectors for scarce funds, so that only a portion of the IDR 27 trillion would be available for these services;
- as long as water and sewerage tariffs remain below cost-recovery levels, regions would be required to subsidize these services; this provides a disincentive to expand existing systems (and would also lead to an immediate increase in routine expenditures, thereby automatically reducing funds available for new investment);
- positive cash balances are primarily a result of the uncertainty related to of the timing and amount of central government transfers.

2.3.4. CENTRAL GOVERNMENT LOANS AND GRANTS

Until the early 1990s, central government grants were a major source of funding for PDAM investment programs. In addition, the central government provided loans to PDAMs through the *Rekening Pinjaman Daerah* (RPD) in the Ministry of Finance. Since the advent of the monetary crisis in 1997, these sources are no longer widely available, the main reasons being: (i) budget constraints have forced the central government to limit spending on

investment programs in all sectors, including the water sector; and (ii) the centre expects PDAMs to be (or to become) financially sustainable and only provides grants in exceptional cases.

Box I The central government cannot close the financing gap on its own

In 2003, MPW spent US\$ 20 million on watershed management in East Java and provided US\$ 1.5 million in grants to PDAMs in that province. For comparison, the total cost of a pipeline from Umbulan Springs to the Greater Surabaya area is estimated at US\$ 180 million.

Sources: Dinas Pengairan Propinsi Jawa Timur (2004), BAPPEPROP Jawa Timur (2005)

2.3.5. FOREIGN PRIVATE SECTOR INVESTMENT

Foreign private investors are interested in larger BOT-type arrangements (with an initial investment of at least US\$ 10 million), preferably in areas with an established demand for water. Some foreign investors do not even wish to consider water supply systems with a service area population below 500,000 as this would not allow them to recoup project preparation costs. More importantly, they are discouraged by high levels of price distortion and the absence of a credible regulatory environment. The risk that local parliaments will not approve pre-agreed tariff increases is of particular importance, especially because water and sanitation infrastructure are long-term investments without an 'exit option'. Unlike most of their domestic counterparts, foreign investors have access to offshore commercial bank loans. Foreign capital is expensive, however, mainly because of high country risk (which is partly reflected in high FOREX risk), and past experience suggests that foreign investors require a return on equity in the order 30 percent per year. Few projects meet this criterion.

2.3.6. DOMESTIC PRIVATE SECTOR INVESTMENT

Although the domestic private sector is willing to finance smaller projects than overseas investors, they are also concerned with high project preparation costs and the risk that tariffs will not be increased to contractually agreed levels. Moreover, most domestic private investors do not have access to long-term project finance. In recent years, some regional governments have signed multi-year 'turn-key' contracts with domestic contractors to expand piped water supply systems. However, such arrangements cannot be considered as genuine private sector investment, as the region effectively procures water infrastructure on installment.

2.3.7. MULTILATERAL BANK LOANS

Development banks, such as the World Bank and the ADB, have repeatedly expressed their interest in financing a substantial portion of the financing gap through long-term loans. The central government is willing to borrow for improvements in piped water supply (and, to some extent, for sanitation), and intends to pass on a major share of the loan proceeds as sub-loans to PDAMs through the Regional Development Account (RDA) in the Ministry of Finance (MoF). Because of legislative uncertainty and the reluctance of MoF to reschedule loans of heavily indebted PDAMs, very few sub-loan agreements have been executed since the *krismon* (see Box 2).

Box 2 Uncertainties concerning the rescheduling of RG loan arrears

According to current regulations, the proceeds from a multilateral bank loan can only be channeled to a PDAM through the region that owns the utility. A region is not allowed for to sign a sub-loan agreement with the Ministry of Finance if it has outstanding arrears on central government loans, including loans to its PDAM. According to MoF data, 87 of 305 PDAM had outstanding arrears in excess of IDR 5 billion and will probably need serious restructuring. On 23 September 2005, the Director-General of Treasury issued a letter that states that regions are no longer allowed to reschedule arrears. If a region wishes to borrow for water supply (or any other sector), it needs to repay any outstanding arrears in one tranche. In view of high levels of indebtedness of PDAMs, many regions are politically or financially unable to do so.

Sources: ESP, MoF (2005)

2.3.8. DOMESTIC COMMERCIAL BANK LOANS

Commercial banks (private or state-owned) are unable to match long-term loans with longterm deposits, and therefore unwilling to extend loans with maturities beyond 5 to 7 years. They are, in any event, reluctant to lend to PDAMs without a regional government guarantee. However, a region is by law not allowed to issue guarantees nor can it offer its revenues or assets as collateral to a bank. In addition, few banks have experience with financing water supply or environmental infrastructure. Having access to commercial credit is particularly important for direct investments in PDAMs or indirect investments through public-private partnerships (PPPs). The ability of PDAMs to borrow commercially is also important for the implementation of smaller projects that, in any case, can be implemented more readily and often with less adverse impacts on the tariff structure if debt resources are available.

2.3.9. MUNICIPAL BONDS

The Ministry of Finance is encouraging the development of a municipal bond market and has recently issued new implementing guidelines in response to change in the law of fiscal decentralization (see Annex ? for details). Because financiers and regional governments do not have experience with municipal bonds, and because access to the municipal bond market is likely to be restricted to a small number of financially sound regions (such as Jakarta and Surabaya), this financing mechanism will remain beyond the reach of most providers of piped water and sewerage systems.

2.3.10. SUMMARY OF FUNDING SOURCES FOR PIPED WATER AND SEWERAGE SYSTEMS

Because of political, social and budgetary constraints, many regional governments will not be able to finance investments in piped water systems and sewerage networks from tariff, grants, central government loans or (increases in) own revenues. As shown in Table 6, regional governments have immediate access to internal revenues and (in some cases) to central government grants in order to finance investments in piped water or sewerage systems. However, the amounts available from these sources are far lower than the amounts required to significantly improving such systems. Multilateral banks are currently experiencing difficulties in channeling loans through the on-lending facility in the Ministry of Finance. Private investment may grow into a major source of funding, but only for a small number of large local governments, and mainly in areas where a proven demand for water already exists. The market for long-term loans from domestic banks and municipal bonds is currently in its infancy.

Funding source	Constraint
Tariff revenues	 Absence of political willingness to increase tariffs to full cost-recovery levels.
	 Large portion of economic benefits cannot be captured by tariffs.
Regional government revenues	 Water and sanitation compete with other sectors for scarce development expenditures.
	 No financial incentive to provide new services that must be subsidized as long as water and sanitation tariffs remain below cost-recovery levels.
	 Uncertainty concerning the timing and amount of central government transfers.
Central government	 Central government budget constraints.
grants and loans	 Unwillingness of MoF to rescheduling PDAM arrears.
Foreign private sector	 High country risk.
investment	 High regulatory risk.
	 Limited availability of regional government own revenues to subsidize private operators.
Domestic private	 High perceived regulatory risk.
sector investment	 Limited access to domestic commercial bank loans.
Multilateral bank	 Legislative uncertainty.
financing	 Uncertainties concerning the rescheduling of RG arrears.
Commercial bank	 Limited experience with the water and sanitation sectors.
financing	 Inability of regional governments to provide collateral.
	 Inability to match loan-term loans with long-term deposits.
Municipal bonds	 Only available to metropolitan cities.

Table 6 Summary of constraints to financing water and sanitation

Source: ESP

2.3.11. WHAT'S NEXT?

The financing gap of US\$ 400 million per year cannot be closed by currently available sources of funding. A financial mechanism is required that:

- allows regional governments to access the market for domestic commercial bank loans and municipal bonds, and improve access to private and multilateral funds;
- allows multilateral banks to channel loans to regional governments;
- reduces the risks of investing in the water and sanitation sector as perceived by commercial financiers (private enterprises, domestic banks and bondholders).

A revolving fund is a mechanism suited to create these conditions.

3. A TYPOLOGY OF REVOLVING FUNDS

3.I. INTRODUCTION

Several countries have developed water revolving funds (WRFs) to address financing issues currently faced by the water sector in Indonesia. In the United States, WRFs have been established in almost every state. State revolving funds are capitalized with national and state government grants. These grants are normally used to leverage private sector financing for municipal water projects, which is a key feature of a successful water revolving fund.

3.2. REVOLVING FUND MODELS

3.2.1. DIRECT LOAN MODEL

The Direct Loan Model is used in about half of the states of the US. Federal and state matching grants are deposited into a designated account and project loans made from it to individual municipalities (see Figure 5). As loans are repaid, funds become available for new loans. The total amount of project loans can never exceed the total level of available grants. A disadvantage of the Direct Loan Model is that it does not provide for leveraging of private capital.

Figure 5 Direct Loan Model



3.2.2. CASHFLOW MODEL

Under the Cash Flow Model (see Figure 6), two sources of funds comprise the WRF and are available for project loans: (i) grants; and (ii) bonds sold to the public. The bonds sold represent leveraging of government funds. Loan repayments are first used to ensure the repayment of bonds. The subordination of the repayment of the grant-funded portion of the WRF itself enhances the rating of WRF bonds. This, in turn, lowers the cost of capital for future loans to local governments. Repayment into the water revolving fund in excess of what is needed to repay bondholders is used to replenish the fund.

Figure 6 Cashflow Model



3.2.3. RESERVE FUND MODEL

Under this model, the revolving fund is composed of two interrelated accounts: (i) the Reserve Fund; and (ii) the Water Revolving Fund itself. Government grants are deposited into the Reserve Fund, which is used solely as a credit reserve for the Project Fund (see Figure 7). Leverage is achieved through the sale of bonds, with the proceeds used to capitalize the WRF, which finances project loans. The US experience indicates that the credit features of the Reserve Model allow a multiple of the Reserve Fund to be raised for loans to regional governments.

3.2.4. OTHER FEATURES OF REVOLVING FUNDS

Other credit enhancements are used with revolving funds to lower the financing cost, including revenue and grant transfer intercepts, credit insurance, and guarantees. WRFs may also lower transaction costs by bundling several small projects and standardizing transaction documents.

Box 3 Guarantees as a means to reduce risk

Risk is a particular problem for water infrastructure projects, which are long-term investments without an 'exit option'. To be able to attract 'limited recourse' or 'non-recourse' financing, a financier would need a high level of confidence in the public party. A guarantee or equity participation of a multilateral agency, whether provided to a WRF or to an individual financier, is a powerful instrument to reduce project risk and thereby attract sufficient project financing at a reasonable cost of capital. At present, multilateral bank (such the IFC or the ADB) as well as several bilateral donors (notably the US-sponsored Development Credit Agreement or DCA) offer such guarantees. However, such guarantees only protect a financier against credit risk and not against interest rate risk (which is significant, given the long payback period of a typical water supply project and the inability of domestic banks to raise long-term sources of capital).

Source: ESP





3.3. REVOLVING FUNDS IN INDONESIA

3.3.1. EXISTING FUNDS

Since the 1980s, the Directorate for Channeling of Government Loans (better known as DPPP) in MoF has been managing a series of revolving funds, including a fund dedicated to financing infrastructure in regional governments (the Regional Development Account or RDA). The fund is poorly managed, as evidenced by:

- <u>Very high arrears levels</u>. Even though most regions are financially able to service loans from the RDA, few elect to do so. As shown in Table 7, 64 percent of all loans were non-performing by the end of 2004 (see Annex I for details on PDAMs).
- <u>Lengthy response times</u>. DPPP needs 6 to 12 months to conclude a loan agreement, and estimates the time required to reschedule a loan at 12 months. For this reason, many regional governments prefer to borrow from other sources, albeit at higher interest rates and shorter maturities vis-à-vis loans offered by DPPP.

• <u>No reinvestment of loan repayments</u>. Even though the RDA was established as a financially sustainable fund, it cannot be classified as a genuine revolving fund, as receipts from loan repayments are either left dormant on an account in the central bank or allocated to the state budget for activities unrelated to infrastructure finance.

An additional disadvantage, from the point of regional governments wishing to borrow for infrastructure projects, is that the RDA is not universally accessible. A region must participate in a GOI-approved program in order to qualify for a loan. Most of these programs are not nationwide but only cover a small of number of regional governments (such as the West Java Environmental Management Program or the Eastern Indonesia Roads Project).

3.3.2. PROPOSED REVOLVING FUNDS IN INDONESIA

I. Overview

Regional governments are not allowed to borrow directly from a foreign national (such as a multilateral bank), but can only do so through the Ministry of Finance. In view of the poor performance of the Regional Development Account, bilateral donors and multilateral banks have developed (and continue to develop) alternative mechanisms for channeling foreign-funded loans to regional governments. Thus far, none of the models have been implemented, primarily because the Ministry of Finance (who is responsible for capital market regulation) is reluctant to license a competitor to the Regional Development Account that is managed under its auspices. Some of the proposed mechanisms are variants of the direct loan model, and are briefly described below.

	Outstanding loans			Arrears (IDR billion)			
	Total	NPL/a	% Total	Loans	Arrears	% Arrears	
Provinces	23	9	39	330	122	36.9%	
Kabupaten / kota	196	83	42	714	560	78.4%	
PDAMs /b	217	185	85	3,156	2,751	88.2%	
Total	436	277	64	4,200	3,433	81.7%	

Table 7 Overview of the RDA portfolio (as of 31 December 2004)

Source: DPPP (2005)

/a Non-performing loans (defined as loans with arrears in excess of IDR 100 million)

/b Including two other BUMDs which account for less than I percent of total loans outstanding

2. The state bank model

Under this model, a foreign lender would extend long-term loans, denominated in a foreign currency, to a state-owned bank. The bank would re-lend in Rupiah to regional governments and manage the loan portfolio in return for a fee (and bear the resulting FOREX risks). This model, which is currently being promoted by KfW and the ADB, is attractive to state banks for two main reasons: (i) it provides access to a reliable source of foreign exchange to fund the banks' profitable export financing business; and (ii) it allows banks to offer long-term loans to regional governments at attractive credit terms. The main disadvantage of the model is that it replaces DPPP as a conduit for multilateral loan financing. In addition, foreign loans would no longer be covered by a sovereign guarantee.

3. The modified state bank model

To improve of the acceptance of the state bank model to the Ministry of Finance, the ADB proposed in 2003 to include DPPP as an additional conduit. Under this model, foreign lenders would extend long-term loans to the Government of Indonesia. DPPP, as the government's implementing agency, would re-lend the loan proceeds (denominated in a foreign currency) to a state-owned bank at a higher interest rate than the rate charged by the foreign lender. The bank, in turn, would re-lend in Rupiah to regional governments and manage the loan portfolio in return for a fee, as it would under the 'ordinary' state bank model. In spite of the apparent advantages of the model, and the tentative approval of the Head of DPPP, it was never implemented.

4. Dedicated revolving funds

The state bank models are essentially mechanisms for the disbursement of multilateral loans without (actively) involving DPPP in the management of the loan portfolio. The state banks would, in principle, be able to lend to all regional governments in the country to finance investments in a variety of sectors. Dedicated revolving funds, on the other hand, are set up to finance investments in a specific sector or in a specific region. Two dedicated funds are currently under preparation (coincidentally both by Dutch water utilities): (i) the Botabek Water Revolving Fund; and (ii) the Eastern Indonesia Water Revolving Fund. Both funds are variants of the cash flow model, and intend to use bilateral donor grants and credit risk guarantees to leverage domestic capital.

5. Positioning of the IWRF vis-à-vis other revolving funds

As described in Chapter 4, the proposed Indonesia Water Revolving Fund is a nationwide facility to mobilize domestic private finance for investment in the water and sanitation sectors. As such, it addresses financing requirements of regions that have no access to the Regional Development or are not covered by any of the dedicated funds (see Table 8). If the Ministry of Finance would accept the (modified) state bank model, the appointed state bank would compete head-on with the IWRF in the market for long-term financing for water and sanitation infrastructure. Past experience suggests, however, that, in order to protect its own revolving fund, the Ministry is unlikely to appoint a bank to manage multilateral loans to regional governments. Against this background, it is important to point out a crucial difference between the IWRF and the (modified) state bank model. The state bank models are designed as an alternative fund channeling mechanism to the RDA. The purpose of the IWRF, on the other hand, is to mobilize domestic private finance.

	Nationwide scope	Regional scope				
Broad sectoral scope	Funds managed by state banks	RDA				
Narrow sectoral scope	IWRF	Dedicated revolving funds				

Table 8 Positioning of the IWRF vis-à-vis other revolving funds

Source: ESP

4. THE INDONESIA WATER REVOLVING FUND

4.1. INTRODUCTION

This chapter presents an outline of an Indonesia Water Revolving Fund (IWRF) to address the financial requirements of the water and sanitation sector in Indonesia. The design of the fund must take the specific needs of borrowers and lenders into consideration, while adhering to prevailing political and legal constraints.

4.2. DESIGN CRITERIA

4.2.1. GENERIC DESIGN CRITERIA

- <u>Financial sustainability</u>. In order to make a long-term impact on the water and sanitation sector in Indonesia, the IWRF must utilize its resources in a financially sustainable manner. This means that interest rates charged by the fund should fully cover its funding and management costs. It also implies that the IWRF should not rely, in the long run, on grants from foreign donors or the central government, and that regions with limited creditworthiness would initially not be able to participate.
- <u>Participatory planning</u>. Because the IWRF seeks to address the concerns of a large number of stakeholders (including the central government, regional governments, commercial financiers and private investors), consultation with key stakeholders is essential to ensure long-term commitment to the successful operation of the IWRF.

4.2.2. DESIGN CRITERIA ARISING FROM THE SPECIFIC NEEDS OF BORROWERS

<u>Leveraging capabilities</u>. At present, most regions are unable to access the market for longterm private financing. A key feature of a successful WRF is the ability to leverage private funds (commercial bank loans and private sector investments). This requirement rules out the Direct Loan Model described in Chapter 3.

- <u>Acceptability to service providers</u>. It is essential that prospective borrowers understand the benefits of the IWRF and are willing to use its services.
- <u>Affordability</u>. The IWRF must offer credit terms that prospective borrowers can afford. By blending private financing with public funds, the IWRF would be able to extend loans at lower rates than the interest rates charged by private financiers.

4.2.3. DESIGN CRITERIA ARISING FROM THE SPECIFIC NEEDS OF LENDERS

At present, commercial financiers feel that the expected return of investing in piped water or sewerage systems are not commensurate with the associated risks. The design of an IWRF would therefore need to incorporate:

- <u>Professional management</u>. Poor management of many government agencies suggests that private financiers may be reluctant to channel funds through a fund that is managed by a public entity.
- <u>Credit enhancement mechanisms</u>. Reserve funds and multilateral guarantees are examples of mechanisms that reduce risks to private financiers.

4.3. DESIGN CONSTRAINTS

4.3.1. LEGAL CONSTRAINTS

- <u>Acceptability by BAPEPAM</u>. A revolving fund would need to be licensed by the Securities Exchange Commission (BAPEPAM) in the Ministry of Finance.
- <u>Compliance with Law 33/2004 and its implementing guidelines</u>. The Government has recently prepared an implementing guideline on regional borrowing. This guideline constrains design options for an IWRF. For example, it contains a provision that foreign loans can only be channeled to regional governments through the central governments (refer to Annex 3 for a detailed analysis of the guideline).
- <u>Compliance with banking and financial institutions law.</u>

4.3.2. POLITICAL CONSTRAINTS

- <u>Involvement of central government ministries</u>. It is unlikely that the IWRF can be established without support from the central government, which remains responsible for the regulation of financial institutions (BAPEPAM) and water utilities (Ministry of Home Affairs), and compliance with national development targets (BAPPENAS) and technical standards for water and sanitation services (Ministry of Public Works).
- <u>Resistance to the revenue intercept</u>. Law 33/2004, as well as its legal predecessor Law 25/1999, states that the central government will deduct any arrears on regional governments from central government transfers '...in the event the Regional Government fails to repay the Regional Loan to the Government'. Even though over 80 percent of regional governments have been in arrears since the laws were issued, the central government has never used the intercept mechanism, nor has it issued the implementing guidelines required to operationalize the mechanism. This means that a revenue intercept would not be considered by prospective lenders as a credible credit enhancement mechanism.
- <u>Resistance to earmarked grants</u>. Although Indonesian law allows the earmarking of government budgets, central and regional governments are generally opposed to a loss of budgetary flexibility.

• <u>Lack of experience with municipal bonds</u>. Regional governments do not have experience with municipal bond issues. In addition, current legislation allows regions to issue bonds for full cost-recovery projects only and places severe restrictions on the guarantees that regions may extend to bondholders. For these reasons, it is expected that private financiers will be reluctant, at least initially, to invest in the municipal bond market.

4.3.3. IMPLICATIONS OF DESIGN CRITERIA AND DESIGN CONSTRAINTS

The Direct Loan Model, as described in Chapter 3, does not allow a water revolving fund to leverage private financing with public funds, which is an essential requirement for the IWRF. The Cashflow Model suffers from a different drawback: it only protects private financiers against losses from non-performing loans through a revenue intercept, which is not a credible credit enhancement mechanism in Indonesia. For these reasons, the proposed model for the IWRF will be based on the Reserve Fund Model. It is envisaged that this model would enable regions (and their service providers) to attract commercial bank loans through the establishment of a reserve fund and the availability of a foreign donor guarantee. In the long run, the model may be expanded to allow regional governments and their water utilities to issue pooled bonds.

4.4. A BASIC MODEL FOR THE IWRF

4.4.1. FEATURES OF THE BASIC MODEL

This section describes the key characteristics of the proposed revolving fund. It is expected that this model will refined as a result discussions with key stakeholders. The features of the basic model are:

- <u>Ownership</u>: central government (\leq 49%) and regional governments (> 51%).
- <u>Enabling framework</u>: a not-for-profit, tax-exempt Trust under prevailing laws and regulations.
- <u>Organization</u>: a board of commissioners, with central and regional representatives, to monitor to implementation of a contract with a professional fund manager (an Indonesian commercial or investment bank).
- <u>Products</u>: long-term loans for water, sanitation and other environmental services.
- <u>Markets</u>: regional governments, including providers of piped water and sewerage (and, in the medium term, solid waste management and watershed management).
- <u>Dividend policy</u>: the IWRF will issue interest-bearing debentures in return for financial participations; all profits will be reinvested in the capital fund.

4.4.2. ESTABLISHMENT AND OPERATIONS OF THE IWRF

I. Step I: Establish the capital base

The Government of Indonesia and regional governments would provide resources to establish a capital fund in return for voting rights in the IWRF on the appropriate legal basis. Initially, only the fifty most creditworthy regional governments in the country would be invited to participate. Other RGs may join the fund at a later date, provided that they meet IWRF membership criteria (see para 4.18 for details). It is assumed that each of the 'first tier' regional governments would contribute IDR 5 billion to the IWRF Capital Fund, resulting in a total contribution of $(50 \times 5 =)$ IDR 250 billion. GOI would match this contribution, so that central and regional governments would provide IDR 500 billion (or US\$ 50 million) to the initial capital base of the fund.

Figure 8 Establishment of the IWRF



Source: ESP

2. Step 2: Enter into co-financing arrangements with bilateral and multilateral lenders

JBIC has indicated, in principle, its interest to co-finance loans with the IWRF, thereby enabling the fund to leverage the financial participations of GOI and participating regional governments. Under the **U.S.-Japan Clean Water for People Initiative**, launched at the World Summit on Sustainable Development in 2002, the partnership between both governments is designed to provide safe water and sanitation to the world's poor and builds upon existing U.S. and Japanese activities in water resources management for developing countries. Other bilateral and multilateral lenders may also be interested in co-financing arrangements with the IWRF. Assuming that JBIC will match the contributions of central and regional governments, the IWRF would initially be capitalized at $(2 \times 50 =)$ US\$ 100 million (see Figure 8). Bilateral and multilateral loans would be channeled to the IWRF through MoF, in conformance with prevailing regulations.

3. Step 3: Enter into co-financing arrangements with domestic commercial banks

Domestic commercial banks will be invited to match the contributions of the IWRF Capital Fund. Such co-financing arrangements would allow the IWRF to further leverage its capital base. Assuming that banks would co-finance 50% of a project with the IWRF Capital Fund, the fund would be able to mobilize $(2 \times 100=)$ US\$ 200 million in capital. Stated differently, an investment in participation certificates of IDR 250 billion would enable 'first tier' regional governments to mobilize to IDR 2 trillion in loans (a leverage ratio of 8:1). Commercial banks loans could either be channeled through the IWRF or directly to the borrower, co-financed with the IWRF.



Figure 9 Fund channeling options (example)

4. Step 4: commence lending operations

The IWRF would extend long-term loans that are sourced from the IWRF Capital Fund (including bilateral/multilateral bank loans) under co-financing arrangements with commercial banks. The fund would reduce risks to commercial financiers by using the following credit and liquidity enhancements (see Figure 10 for an overview):

- i. Credit guarantees from the U.S. government (DCA) and other foreign donors.
- ii. The IWRF Reserve Fund, which acts as a liquidity guarantee to commercial banks.
- iii. A trustee, appointed by lenders for every loan transaction, whose function is to represent the interests of the creditors by controlling assigned collateral.

Figure 10 Lending operations of the IWRF



Source: ESP

4.4.3. EXPANDING THE IWRF

I. Expanding the IWRF capital base

To mobilize additional long-term financing, the IWRF would invite other creditworthy regional governments to financially participate in the fund (such participations may partly or fully be funded through bilateral or multilateral bank loans). For details on phased expansion of the IWRF, refer to para 4.18.

2. Capital market funding through bond issues

GOI and BAPEPAM may license the IWRF to issue medium and long-term bonds. Because of the credit and liquidity enhancement facilities, the fund could issue municipal bonds at lower coupon rates and longer terms when compared to individual regional governments, thus enabling many small RGs with limited borrowing capacities to access long-term loans at competitive terms of credit.

3. Co-financing with regional development banks (BPDs)

The Association of Regional Development Banks (ABPD) administers syndicated loans from BPD consortia to large borrowers. This function could be extended by establishing a securities company jointly with IWRF. This company would issue and trade IWRF and BPD bonds. The IWRF would initiate co-financing with BPDs as a second lending alternative. Such cooperation should cover the following functions:

- co-financing of water supply and sanitation project investments e.g. requesting BPDs to finance up to 20 percent of full-cost recovery loans;
- administration by BPD of loan disbursements and repayments in the province of registration;
- co-operation on execution of treasury functions for all activities.

Co-financing with regional development banks has two additional advantages: (i) many regions hold substantial low-yielding balances in BPDs, which could be mobilized to finance long-term loans (see Box 4); and (ii) BPD are owned by the prospective clients of the IVRF (i.e. the regional governments themselves), who have a clear interest in promoting the business of the banks in which they hold shares.

Box 4 Deposits held by regions and PDAMs in regional development banks

Regional governments and PDAMs maintain large cash balances throughout the year, mostly in ondemand deposit accounts, which earn low interest incomes. It is estimated that, at any given day, regional governments and PDAMs hold US\$ 3 billion to US\$ 5 billion in cash. Better cash management may release a substantial portion of this amount to finance investments in the water and sanitation sector.

		(IDR trillion)				
	2002	2003	2004	2005 /a	%Total /a	
Provinces	8.5	8.1	10.0	17.8	37	
Kabupaten and kota	13.6	13.4	14.6	29.1	60	
Regional government enterprises	1.2	1.7	1.2	1.3	3	
Total	23.3	23.1	25.9	48.3	100	
/a As of 30 June 2005						

Sources: ESP, Bank Indonesia (2005)

4.5. ORGANIZATIONAL ARRANGEMENTS

4.5.1. LEGAL STRUCTURE

The legal structure of the IWRF must allow the representation of key stakeholders in the strategic decisions of the funds. Ideally, the IWRF should be established as a non-profit organization to minimize the cost of funding and maximize the funds that would be available for reinvestment. The new laws on income tax and statutory foundations (Law 17/2000 and Law 16/2001, respectively) remove the option to establish the fund as a tax-exempt statutory foundation (*yayasan*). It is therefore proposed to establish the IWRF as a not-for-profit, tax-exempt Trust by: (i) regional governments willing to subscribe to participation certificates; and (ii) the Government of Indonesia. In a later stage, other regions would be invited to financially participate in the IWRF. (It is, however, unclear if multilateral donors would be able to support a Trust with grants or sub-loans, and what modification to the legal structure would be required to mobilize such support.) To minimize tax liabilities, it is proposed that the IWRF would issue interest-bearing debentures in return for financial participations, as interest payments would be tax-deductible.

4.5.2. OWNERSHIP

As described in Chapter 2, regional governments (especially *kabupaten* and *kota*) are involved in all institutional options for delivering piped water services and sewerage networks. To ensure that the fund remains attractive to this group, it is proposed that the majority of the voting rights of the Trust (say, 51 percent) would be conferred to regional governments. The Government of Indonesia would control the remaining 49 percent.

4.5.3. PHASED EXPANSION OF IWRF OWNERSHIP – THE NEED FOR STRINGENT MEMBERSHIP CRITERIA

As mentioned in para 4.2, interest rates charged by the IWRF should fully cover its funding and management costs. This requires that all borrowers meet their financial obligations to the IWRF in full. If a region defaults on its contractual obligation with the fund, a private financier will have recourse from the IWRF Capital Fund. In view of the large number of non-performing loans in the portfolio of the Ministry of Finance (see para 3.6), a prospective regional participant would be concerned about the risk of that (part of) its investment in participation certificates would be written off. For this reason, it is proposed that a regional government may only join the IWRF if it meets (and continues to meet for duration of its participation) a series of 'membership criteria' that will remain unchanged over time. Examples of such criteria are: no arrears on outstanding loans, compliance with disclosure requirements, and implementation of full cost-recovery tariffs for piped water. It is expected that, at least initially, many regional governments will not meet these criteria. This implies that the IWRF will be established with a small number of financially sound regional governments. Other RGs may join the fund at a later date, provided that they meet the original membership criteria.

4.5.4. OPERATIONS

IWRF would be supervised by a Board of Commissioners with representatives from key stakeholders. To ensure that the IWRF would be managed in an efficient and professional manner, it is proposed that the Board would contract an Indonesian investment or commercial bank, capable of bringing professional management practices to the operations of the IWRF. The owners of the IWRF would manage the contract of the Indonesian bank through the Board of Commissioners, but would otherwise not be involved in the operations of the fund (see Annex 2 for details).

4.6. PRODUCTS

4.6.1. OVERVIEW

The IWRF would offer long-term loans (up to fifteen years) to its regional participants (or environmental service providers owned or appointed by these participants) according to regulations agreed upon by the Board of Commissioners. The IWRF would finance investments in piped water supply, watershed management and other environmental infrastructure (such as sanitation and solid waste management).

4.6.2. CURRENT CREDIT TERMS

Table 9 compares the features of the proposed IWRF credit line to the credit terms offered by competing sources of funding. As shown in the table, the RDA offers loans with a variable interest rate (currently 8.2% p.a.) with maturities of up to twenty years. Commercial banks loans are more expensive and normally not available for periods longer than 5 to 7 years.

Credit term	RDA	Commercial banks	IWRF (proposed)
Annual interest rate	Variable, 8.2%	Fixed, 15%	Fixed, 12.6%
Maximum term	20 years	5 years	15 years
Maximum grace period	5 years	l year	Construction period
Grace on interest allowed?	No	l year	Yes
Type of loan	Equal installment	Annuity (usually)	Demand-driven
Loan processing time	Up to 12 months	Up to 3 months	Up to 3 months
Creditworthiness assessed on the basis of	Regional government revenues	Regional government revenues	Project cashflows, IWRF reserve fund
Minimum equity required	Equal to the cost of items not eligible for multilateral bank financing	NA	Proportional to contribution to IWRF Capital Fund
Restrictions	RG must participate in donor-funded program, no arrears	RG must be creditworthy	RG must financially participate in IWRF and be creditworthy

Table 9 Credit terms of the IWRF vis-à-vis competing loan products

Source: ESP

4.6.3. DESIRED CREDIT TERMS

At first sight, the Regional Development Account in the Ministry of Finance offers the most attractive of credit. RDA loans are, however, not available to regional governments not participating in a GOI-approved donor program (such as USDRP or ILGRP). Furthermore, discussions with regional governments indicate that credit terms offered by the RDA are not based on the demands of the regions themselves, who require fast loan processing times, fixed (as opposed to variable) interest rates, loan repayment schedule that match projected cashflows, and prefer to borrow against project cashflows rather than regional government revenues.

4.6.4. PROPOSED IWRF CREDIT TERMS

In view of prevailing conditions in the market for private financing, the IWRF would be able to offer the following credit terms:

- <u>Fixed interest rate of 12.6%</u>. This rate is based is on an average cost of capital of public funds (7%) the prevailing interest rate on commercial bank loans (15%), and a 'leverage ratio' of 70/30 ([70% x 15%] + [30% x 7%] = 12.6%).
- Loan maturity of up to 15 years. Initially, the IWRF Capital Fund would be blended with commercial bank loans with a maturity of seven years, to be rolled-over into new eight-year loans if the IWRF Reserve Fund would contain sufficient funds to back up the principal and interest payments due. (Alternatively, banks may initially offer loans with a maturity of five, to be rolled over twice during the fifteen-year term.) The option to liquidate the loan at five-year or seven-year intervals would reduce the banks' liquidity risk, while enabling them to offer loans with a tenor of 15 years. Once the IWRF has established a credible track record, private financiers may be willing to extend long-term loans without an intermediary 'exit option'.
- <u>Demand-driven loan repayment schedules</u>. Unlike the RDA, the IWRF could offer repayment schedules that match the cashflow of the prospective borrower.

4.7. TARGET MARKETS

4.7.1. THE RATIONALE FOR IDENTIFYING TARGET MARKETS

- <u>Cost effectiveness</u>. At present, there are over 400 *kabupaten* and *kota* in Indonesia, with populations ranging from fewer than 50,000 to over 3 million. It is not cost effective to market the services of the IWRF to all these regions, as many of them do not have the capacity to borrow for water or sanitation infrastructure.
- <u>Cost efficiency</u>. The fixed cost of evaluating a credit application for a water or sanitation infrastructure is relatively high. It is not cost-efficient to allocate substantial resources for the technical analysis of a project that would require a relatively small loan amount.

In summary, the IWRF should market the credit line to customers that are financially capable to service loans that exceed a minimum acceptable value.

4.7.2. MARKET SEGMENTATION

The purpose of the IWRF is to improve access to long-term financing to providers of water and sanitation services. In the short run, the most prospective market segment the IWRF consists of loans for services that could be delivered:

- i. <u>at full cost-recovery tariffs</u> (so that debt can be serviced from project cashflows); and
- ii. <u>by individual regional governments</u> (in view of political constraints to the provision of water and sanitation services on a regional basis).

Services other than piped water (sewerage networks, solid waste management and watershed management) can normally not be provided at full cost-recovery tariffs. As mentioned in Para 2.11, the regionalization of water utilities has been met with strong political opposition, especially from regional governments.

Table 10 IWRF market segments

	Potentially full cost-recovery	Unlikely to be full cost-recovery
Stand-alone	Piped water (provided by individual regional government)	Sewerage networks
Regional	Regional water utilities	Regional solid waste management, watershed management

Source: ESP

4.7.3. A MARKET DEVELOPMENT STRATEGY

As shown in Figure 11, it is proposed that the IWRF would initially only offer long-term for piped water supply services to individual regional governments, including PDAMs and PPPs. In the medium and short run, the IWRF would also offer long-term financing for other environmental services and for piped water provided by regional water utilities. This remainder of this chapter will identify target markets for the most prospective market segment only. The segment mainly consists of districts (*kabupaten* and *kota*), as most provinces do not own PDAMs.





4.7.4. DETERMINANTS OF DEMAND FOR PIPED WATER SERVICES

The demand for long-term financing for piped water supply is expected to be highest in

district governments with:

- I. <u>a high potential demand for piped water services;</u> and
- 2. <u>sufficient borrowing capacity</u> to service loans for piped water supply systems.

Population pressures create a potential demand for investments in piped water, but only districts with sufficient borrowing capacity will be able to address this demand.

4.7.5. REGIONS WITH A HIGH POTENTIAL DEMAND FOR WATER AND SANITATION SERVICES

I. Municipalities (kota)

For two main reasons, demand for piped water services is higher in cities than in rural areas:

- <u>Above-average income levels</u>. The urban population is more willing and able to pay for piped water services than their rural counterparts.
- <u>Above-average population densities</u>. Because of environmental pressures, alternative sources of water are scarcer and therefore more expensive in cities than in rural areas, thereby further increasing willingness-to-pay for piped water.

It may be argued that demand for piped water services would be depressed in districts where current coverage is already high. However, in 2004 only three of 440 *kabupaten* and *kota* provided piped water to more than 80 percent of the population.

2. Highly urbanized regencies (kabupaten)

Although some district governments are not classified as 'urban', they share water and sanitation problems that are commonly found in cities. For example, Kabupaten Bogor on the fringe of Greater Jakarta (with a population of almost 3.8 million inhabitants) has presumably a more pressing need for improved water and sanitation services than Kota Tidore Kepulauan (population 79,000) in Maluku Utara. For this reason, district governments were classified as 'urban' on the basis on population density.

3. A classification of districts by potential demand for piped water services Based on population densities, *kabupaten* and *kota* were classified as follows:

- <u>High demand</u>: all districts with a population density of at least 2,500 persons/km².
- <u>Medium demand</u>: all districts with population densities ranging from 500 to 2,500 persons/km².
- <u>Low demand</u>: all other districts.

As shown in Table 4.3, virtually all of the larger PDAMs in the country are owned by districts with a 'high' or 'medium' demand for piped water.

Population density	Potential demand	Districts (#)	Population (million)	Access to piped water	# PDAMs > 25,000 conn.
> 2,500	High	48	38.9	36%	20
500 - 2,500	Medium	121	107.1	14%	28
< 500	Low	271	68.8	11%	4
Total		440	214.8	17%	52

Table 11 Key indicators on potential demand for piped water services

Sources: ESP calculations, based on PERPAMSI (2004) and BPS (2003)

4.7.6. REGIONS WITH SUFFICIENT BORROWING CAPACITY

I. Definition of borrowing capacity

Even if a district government is willing to avail of the IWRF credit line, it may not have the borrowing capacity to do so. According to a recently issued implementing guideline on regional borrowing (the revision to PP107) stipulates 2.5 as the minimum value of the DSCR of a regional government. The new PP also stipulates that total outstanding long-term debt (TOLTD) should not exceed 75 percent of 'general revenues' in the previous budget year. In other words, if a region wishes to borrow, it must ensure that the following conditions hold during any given year:

(PAD + I	DBH +	DAU – Obli	gatory E	Exp	enditures ¹)	/ De	bt Service <u>></u> 2.5	[1]
			-			`		

TOLTD ; / (Total Revenues – Earmarked Revenues) $_{i-1} < 0.75$ [2]

Stated differently, the total amount of revenues that are in principle available to service debt (non-earmarked revenues minus obligatory expenses) should at least be 2.5 times as large as projected debt service charges in any given year, subject to the '75% limit'. The formulae apply to long-term debt only (loans with a maturity of at least one year).

2. Estimated borrowing capacities

Based on a series of highly conservative assumptions, the Consultant has estimated the borrowing capacities for 318 *kota* and *kabupaten*, accounting for 85 percent of the total population (data were not available for other districts, most of which were recently created). The five districts that constitute DKI Jakarta as this province is already served by two PPPs with immediate access to long-term commercial bank financing, and were therefore also excluded from the analysis. It was assumed that 25 percent of the calculated borrowing capacities would be available to service loans for water and sanitation infrastructure, with the remainder reserved for debt service on existing loans and new loans for investments in other sectors.

3. A classification of kabupaten and kota by adjusted borrowing capacity

The term 'adjusted borrowing capacity' (ABC) refers to the borrowing capacity of a district to service loans for piped water supply projects. The 318 districts were grouped as follows:

- <u>High borrowing capacity</u>: all *kota* and *kabupaten* with ABCs in excess of IDR 80b.
- <u>Medium borrowing capacity</u>: all districts with ABCs from IDR 40 to IDR 80 billion.
- Low borrowing capacity: all other districts.

4.7.7. PUTTING THE PIECES TOGETHER

1. Potential demand for piped water vis-à-vis adjusted borrowing capacity

Figure 12 displays groups of districts along two dimensions: (1) potential demand for piped water, as indicated by population densities (which, in turn, reflect affordability and willingness-to pay); and (2) potential ability to fulfill that demand, as indicated by borrowing capacity. For obvious reasons, the main market of the IWRF consists of districts that are able to borrow and where potential demand for piped water is high. Conversely, it is unlikely that districts with low borrowing capacities and weak potential demand for piped

¹ PAD = own revenue; DBH = shared tax revenue; DAU = general allocation; obligatory expenditures = wages + DPRD expenditures

water would be interested in the products of the fund. These observations suggest three target markets for the IWRF:

- High potential (10 districts, of which nine in Java and one in North Sumatra).
- <u>Medium potential</u> (55 districts).
- Low potential (72 districts).

It should be emphasized that the remaining 181 districts are not part of the target market. Because of weak demand and limited borrowing capacity (or a combination of both), they constitute a 'zero potential' market and should not be targeted by the IWRF.

Financial ability to	Potential	Potential demand for piped water supply							
meet potential demand for piped water supply	High (population density > 2,500)	Medium (population density 500–2,500)	Low (population density < 500)						
High (borrowing capacity > IDR 80 billion)	10	36							
Medium (borrowing capacity IDR 40-80 billion)	19	61	165						
Low (borrowing capacity < IDR 40 billion)	11	16							
Legend: High p	ootential	Low potential							
Mediu	ım potential	No potential							

Figure 12 Number of kabupaten / kota by target market

2. Target markets covered by ESP

The Environmental Service Program covers three provinces on the island of Sumatra (Aceh, North Sumatra and West Sumatra) and the island of Java. As shown in Table 12, the ESP working area covers 9 of 10 districts with a 'high' potential demand for piped water financing, and 44 of 55 districts with a 'medium' potential demand. This is not surprising as Java and the northern part of Sumatra are home to the most densely populated kabupaten and *kota* in the country. In addition, regional borrowing capacities are to a large extent determined by central government transfers which, in turn, are largely dependent on the population of a district.

	<u>Pc</u>	1			
Working area	High	Medium	Low	Zero	Total
Java (excluding DKI Jakarta)	8	41	47	I	97
Aceh, North Sumatra, West Sumatra	I	3	6	32	42
Other areas (not covered by ESP)	I		19	148	179
Total	10	55	72	181	318

Table 12 IWRF target markets covered by ESP

Sources: ESP calculations, based on PERPAMSI (2004) and BPS (2003) /a Demand for long-term loans for piped water only

4.8. SUMMARY

4.8.1. THE BASIC MODEL

It is recommended to establish an Indonesia Water Revolving Fund as a tax-exempt foundation (*yayasan*) without a profit motive. Regional governments would control at least 51 percent of the voting rights in the IWRF, with the remainder being held by central government agencies. Participants in the IWRF would appoint a Board of Commissioners, which would contract an Indonesian bank to manage the fund. The IWRF would enable participating regional governments (including environmental service providers controlled or appointed by such regions) to attract commercial banks loans through the establishment of a reserve fund and the availability of a foreign donor guarantee. The IWRF Capital Fund would be financed from contributions from central and regional governments, and augmented by loans from JBIC and possibly other bilateral and multilateral donors.

4.8.2. UNIQUE FEATURES OF THE IWRF

The proposed mechanism stands apart from previous attempts to address financial problems in the water supply sector, the main differences being:

- The IWRF would be controlled by regional governments.
- The IWRF would finance investments in watershed management programs, sanitation and solid waste facilities, not only just water supply.
- The IWRF would finance activities of all providers of water supply services (not just PDAMs, but also public-private partnership, and RGs themselves).
- Economies of scale would allow the IWRF to consolidate many smaller loans into a size that is more readily marketable and adaptable to the credit markets while lowering the management and administration cost per unit of amounts borrowed.

4.8.3. VARIATIONS ON THE BASIC MODEL

The basic model assumes that the IWRF would leverage its reserve fund to attract bilateral, multilateral and domestic commercial bank loans. In the long-run, the IWRF may consider co-financing with regional development banks and capital market funding through bond issues.

4.8.4. PRODUCTS AND TARGET MARKETS

The IWRF would offer loans with maturities of up to fifteen years and a fixed interest rate of 12-13% p.a., initially to individual regional governments (or their PDAMs) that wish to borrow for investments in piped water supply systems. Repayment schedules would be tailored to the needs of the borrower. The most prospective markets for this product are 65 regional governments which are able to borrow from the IWRF and where potential demand for piped water is deemed high.

4.8.5. ENVISAGED DEVELOPMENT OF THE IV/RF

I. Short term (2006).

- Conduct a detailed feasibility study.
- Establish a dialogue with regional governments (including their national organizations) and the Government of Indonesia to establish the IWRF.
- IWRF to establish cooperation with regional government-owned banks and commercial banks to facilitate and implement on-lending of long-term loans for water and environmental infrastructure to eligible borrowers.

2. Medium and long-term (2007-2016).

- Invite other regional governments to financially participate in the IWRF.
- Expand the IWRF capital base through additional investments in participation certificates, GOI grants, bilateral and multilateral funds, and bond proceeds.
- Provide long-term investment loans to eligible borrowers for feasible water and environmental infrastructure projects.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. INTRODUCTION

Experience suggests that the establishment of full-fledged revolving fund may require up to three years of preparation, primarily because of the lack of experience with such funds, and because of the large number of stakeholders involved. As described in this report, there is presently a large unfulfilled demand for long-term financing for water and sanitation infrastructure in Indonesia, estimated at US\$ 400 million per year. Demand is driven by the central government, which has committed itself to halve, by 2015, the number of people without access to safe drinking water, as well as by over 400 regional governments, which have been responsible for the provision of water and sanitation since the implementation of Law 22/1999 on regional autonomy in 2001. This report has argued that a water revolving fund is uniquely suited to leverage domestic private capital to finance much-needed investments in the water and sanitation sector. This concluding chapter summarizes the opportunities that favor the establishment of an Indonesia Water Revolving Fund, threats that may jeopardize the creation of the IWRF, and actions that need to be taken to further develop the concept.

5.2. OPPORTUNITIES

5.2.1. THE IVVRF HELPS THE CENTRAL GOVERNMENT TO ACHIEVE ITS STATED OBJECTIVES

- <u>Millennium Development Goal #7</u>. In 2002, the Government of Indonesia committed itself to Millennium Development Goal #7 and pledged to halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. To achieve this goal, annual investments in the water and sanitation sector need to increase from US\$ 50 million to US\$ 450 million over the next ten years.
- <u>Development of the municipal bond market</u>. According to the 2005-2009 strategic plan of BAPEPAM, the capital market supervisory agency intends to start developing the municipal bond market in 2006.

5.2.2. THE IWRF PROVIDES TANGIBLE BENEFITS TO REGIONAL GOVERNMENTS

The direct benefits to participating regional governments are:

• <u>Opportunity to leverage internal revenues</u>. Because the IWRF Reserve Fund protects private financiers against losses from non-performing loans, commercial banks would be willing to extend loans that exceed the reserves by a substantial margin.

- <u>Access to commercial bank financing</u>. The availability of credit risk guarantees further limits credit risk to a commercial bank. The IWRF could use the instrument to attract long-term loans (with maturities up to fifteen years) by either by leveraging its capital base or co-financing the loan with one or more Indonesian banks. In addition, the IWRF can consolidate many smaller loans into a size that is more readily marketable and adaptable to the credit markets.
- <u>Attractive terms of credit</u>. Interest rates on 'IWRF-backed' loans would be lower than interest rates charged by commercial banks, as : (i) credit risk guarantees would lower credit risks; (ii) the IWRF would enable banks to better match assets and liabilities; and (iii) because of its tax-exempt and non-for-profit status, the required return on IWRF capital is lower than the return required by commercial banks, so that blending the two sources lowers the average cost of capital. In addition, the economies of scale of the financial transactions of the IWRF can lower the management and administration cost per unit of amounts borrowed.
- <u>Access to the domestic bond market</u>. In the long run, the IWRF may also increase its lending base through the proceeds from the sale of IWRF bonds. Because of its substantial capital base, the IWRF would be able to place bonds with lower coupon rates and longer maturities than an individual regional government.
- Integrated approach to financing, planning and project execution.
- <u>Access to supporting services</u> The IWRF can provide technical assistance and training and act as a logical focal point for its application.

5.2.3. THE IWRF PROVIDES ACCESS TO DOMESTIC COMMERCIAL BANKS TO ACCESS THE MARKET FOR MUNICIPAL INFRASTRUCTURE FINANCE

In recent years, domestic commercial banks have repeatedly expressed their interest to access the market targeted by the IWRF, but have been reluctant to do so for various reasons (primarily because of their inability to raise matching funds for long-term capital). The IWRF's credit enhancements would enable commercial banks to extend long-term loans at an acceptable risk.

5.3. THREATS

5.3.1. THE MINISTRY OF FINANCE IS RELUCTANT TO LICENSE A COMPETITOR TO THE RDA

This is a major threat to the establishment of the IWRF, as most previous attempts to establish revolving funds have failed because of the reluctance of MoF to channel foreign funds to regional government through a mechanism other than the Regional Development Account. It should be emphasized, however, that the purpose of the IWRF is to leverage domestic private capital, not to act as an alternative conduit for multilateral loans.

5.3.2. REGIONAL GOVERNMENTS ARE RELUCTANT TO BORROW FROM AN AGENCY WITH CENTRAL GOVERNMENT INVOLVEMENT

In recognition of the pivotal role of the central government in regulating financial institutions and water utilities, and their responsibility to ensure compliance with national development targets and technical standards for water and sanitation services, it is proposed that the IWRF would be established with a sizable minority participation of appropriate central government agencies.

5.3.3. LACK OF AN 'INSTITUTIONAL CHAMPION' TO PROMOTE THE IWRF

To establish the IWRF, it is necessary that sufficiently powerful institution will claim 'ownership' of the concept and take responsibility for promoting the concept to the major stakeholders. This is especially important in Indonesia, where decision-making about an institution such as the IWRF is highly fragmented.

5.4. RECOMMENDED ACTIONS TO FURTHER DEVELOP THE IWRF CONCEPT

5.4.1. IWRF TARGET MARKETS COVERED BY ESP THE NEED FOR A DETAILED FEASIBILITY STUDY

In order to promote the concept to key stakeholders, a detailed study is required. The study would, at the minimum, need to address the following issues in detail:

- Stakeholder analysis.
- Identification of legal and organizational options.
- Financial feasibility analysis.
- Market survey.

5.4.2. STAKEHOLDER ANALYSIS

The study would identify institutions with a mandate for developing long-term financing for the water and sanitation sector. ESP would discuss the preliminary concept with key decision makers in GOI with the explicit aim of identifying an 'institutional champion' to promote the concept to other stakeholders.

5.4.3. IDENTIFICATION OF LEGAL AND ORGANIZATIONAL OPTIONS

This study would:

- Define the capitalization (size and source) and ownership of the IWRF.
- Identify credit enhancements and sources of credit enhancements.

- Define membership criteria.
- Identify an appropriate administrator of the fund and address legal or institutional issues that would affect its mandate.
- Formulate basic operating procedures and technical implementation guidelines.

5.4.4. FINANCIAL FEASIBILITY ANALYSIS

Under this header, the study would:

- Prepare a draft business plan for establishment the IWRF that would enable the fund, in the long, to operate on a financially self-sustaining basis.
- Outline basis for determining underwriting criteria, (including interest rates, guarantee fees, administrative fees, loan tenors, to ensure that there will be standardized lending terms and conditions for each transaction).
- Recommend on sustainable financial requirements for operating the fund (i.e. determine levels of management and administrative fees)

5.4.5. MARKET SURVEY

The study would contain a prioritized list of regional governments and water utilities and the results of a survey conducted among the fifty most prospective markets for the IWRF.

6. ANNEXES

6.1. ANNEX I STATUS OF PDAM LOANS

6.1.1. OVERVIEW OF THE PDAM LOAN PORTFOLIO

According to the Ministry of Finance, arrears on PDAM loans increased from IDR 1.66 trillion in December 2003 to IDR 2.75 trillion in December 2004, a year-on increase of 65 percent. Non-performing loans are in a progressive state of deterioration, as they slip into higher categories of arrears (see Table 13). PDAMs with more than IDR 5 billion in arrears will probably need serious restructuring. On 31 December 2004, there were 87 such PDAM, up from 41 one year earlier. Most of these PDAM serve highly urbanized areas.

	0	0-0. I	0.1-0.5	0.5-I	I -5	5-10	10-20	> 20
December 2003	25	17	31	14	86	14	17	10
December 2004	24	9	23	13	62	47	17	23
Change 2003-2004	-1	-8	-8	-1	-24	33	0	13

Table 13 Classification of PDAM arrears at December 2003/04 (IDR billion)

Source: Direktorat Penerusan Pinjaman Pemerintah (2005)

6.1.2. UNCERTAINTIES CONCERNING THE RESCHEDULING OF REGIONAL GOVERNMENT ARREARS

According to current regulations, the proceeds from a multilateral bank loan can only be channeled to a PDAM through the local government that owns the utility. A local government is not allowed for to sign a sub-loan agreement with the Ministry of Finance if it has outstanding arrears on central government loans, including loans to its PDAM. According to MoF data, over one-third of 440 local governments had outstanding arrears in excess of IDR 5 billion, primarily because of arrears on PDAM loans. On 23 September 2005 the Director-General of Treasury, who is responsible for the administration of central government loans to the regions, issued a letter, which states that local governments are no longer allowed to reschedule arrears. If a local government wishes to borrow for water supply (or any other sector), it needs to repay any outstanding arrears in one tranche. In view of high levels of indebtedness of PDAMs, many local governments are politically or financially unable to do so.

6.2. ANNEX 2 ORGANIZATION STRUCTURE OF THE IWRF

6.2.1. OVERVIEW

It is proposed that the IWRF be organized as an independent, financial institution, and staffed with competent legal, financial and technical infrastructure development specialists. A Board of Commissioners with representatives from the central government, regional governments, PDAMs and other key stakeholders (NGOs and local community groups) would supervise and issue policy guidelines, funding and lending regulations for IWRF.

6.2.2. ORGANIZATION

IWRF could be organized as a line organization with four operative departments with the following main functions: (i) treasury and loan administration; (ii) technical and environmental evaluation of infrastructure projects; (iii) legal assistance to IWRF as an institution, to infrastructure project owners, capital market investors, and IWRF borrowers; and (iv) accounting, human resource and office administration. Each section would be headed by a director. The President Director (CEO) and each sectional director will be appointed by the Board of Commissioners. The proposed organizational structure and main operational tasks of each department are shown in Figure A1.

6.2.3. TREASURY

IWRF treasury staff would mobilize and administer investment in participation certificates, grants and bond proceeds in cooperation with commercial banks, capital market institutions and investors. Their main duty is to obtain increased access to equity capital, grants and private sector funds from the capital market and make leveraged funds available for financing of long-term water supply and sanitation infrastructure development loans.

6.2.4. LOAN ADMINISTRATION

The Loan administration department would appraise loan applications from public private owners and developers of municipal water supply and sanitation projects. This department shall cooperate with BPDs and commercial banks by initiating co-financing, risk sharing and loan administration agreements of individual investment loans based on cooperation agreements between the IWRF and participating banks.

6.2.5. OTHER FUNCTIONS

IWRF's technical and legal sections would assist lenders and borrowers of IWRF initiated infrastructure development loans develop feasible project proposals with public private participation.

Figure 13 IWRF Organization Structure (proposal) BOARD OF COMMISSIONERS

Treasury & Loan Administration	Technical Project Evaluation	Legal & Private Sector Participation	Accounting, HR & Administration	
Fund Management. Issue Municipal Bonds.	Evaluate technical and environmental feasibility of Projects.	Issue and review legal documents related to bond issues.	Keep and maintain an electronic accounting system.	
Manage co-financing and syndication of loans. Issue loan disbursement	Evaluate Project cost components. Review technical constraints.	Evaluate co-financing and syndicated loan agreements. Review legal require-	Provide regular account updates and accounting reports to financiers, borrowers, BAPEPAM and owners. Manage and develop employees.	
Review financial feasibility of projects	Review project sites. Review demand	ments related to borrowers and projects.		
requesting loans.	analysis.	Review contract	Carry out office	
Review borrower	Review tariffs.	impacts of private	administration in accordance with	
ecommend loan provals. Review operations of existing infrastructure and integration of new projects.	investor agreements with PDAMs/RGs related to BOTs, concessions, etc.	operational guidelines and management requests. Pursue good		
		Management and service contracts.	cooperative governance.	
		Assist IWRF solve legal problems and conflicts with borrowers.	Carry out internal control and audits.	

PRESIDENT DIRECTOR

Source: ESP

6.2.6. TREASURY

IWRF treasury staff would mobilize and administer equity capital, grants and bond proceeds in cooperation with commercial banks, capital market institutions and investors. Their main duty is to obtain increased access to equity capital, grants and private sector funds from the capital market and make leveraged funds available for financing of long-term water supply and sanitation infrastructure development loans.

6.3. ANNEX 3 THE COMMERCIAL BANKING SECTOR IN INDONESIA

6.3.1. OVERVIEW OF THE COMMERCIAL BANKING SECTOR

Commercial banks mobilize funds from the public through the following savings products: (i) demand deposits, (ii) time deposits, (iii) deposit certificates, and (iv) savings deposits. The largest portion of commercial bank funds is used for financing of working capital and consumer credit to bank customers. Other commercial bank services approved by Bank Indonesia include: issuing notes, bonds, commercial papers and other securities. The commercial banks in Indonesia are allowed to assist investors in the capital market by accepting payments and claims for securities, settling securities accounts, providing custodial services and undertaking placement in securities funds. Banks can also act as a founder and manager of pension funds based on Pension Fund Law regulations. Private persons and legal entities may purchase shares in a commercial bank. Maximum ownership share by a foreign citizen or legal entity is 99 percent of the paid-up capital of a bank. Share purchases which result in 25 percent or higher bank ownership by a natural or legal person must be approved by Bank Indonesia.

6.3.2. BANK RESTRUCTURING

As a result of the economic crisis and the collapse of the banking system in the late 1990s, the number of commercial banks registered in Indonesia decreased from 243 in 1997 to 131 by the end of June 2005. The central bank (Bank Indonesia or BI) intends to continue the ongoing consolidation of the banking industry by assisting voluntary mergers of commercial banks and by closing down banks that are unable to meet BI's capital requirements. The minimum capital requirement is currently set at IDR 100 billion (US\$10 million) for existing banks, and IDR 3 trillion (US\$300 million) for new banks.

6.3.3. INDONESIAN BANKING ARCHITECTURE

In 2004, Bank Indonesia issued a framework for improving the nation's banking system. the *Indonesian Banking Architecture*, which is a comprehensive framework for a sound, strong, and efficient banking system, Its main objectives (referred as 'pillars') are: (1) a healthy banking structure; (2) an effective regulatory system; (3) an effective and independent supervisory system; (4) a strong banking industry; (5) adequate infrastructure; and (6) robust customer protection. Table 14 gives an overview of the desired structure of the domestic commercial banking sector.

Type of bank	Number	Scope	Capital (IDR trn)
Anchor banks	2 – 3	International	> 50
National banks	3 – 5	Nationwide	10 – 50
Focus banks	30 – 50	Particular business segments	0.1 – 10
Rural / specialized banks	NA	(limited)	< 0.1

Table 14 Structure of the commercial banking sector as proposed by BI

Source: Bank Indonesia (2004)

6.3.4. COMMERCIAL BANK FINANCING OF WATER INFRASTRUCTURE

I. Investment credit by sector

The share of investment credit in outstanding bank loans hovers around 20 percent. As shown in Table 15, commercial banks had extended IDR 4.5 trillion (US\$ 450 million) in investment credits to the electricity, gas and water sector by the end of June 2005, or less than 5 percent of total investment credits. In 2005, the central government requested commercial banks to increase investment credit to public-private investors in infrastructure projects.

Year	2002	2003	2004	2005 /a	
Supply (investment credit by lender)	82.9	94.3	116.9	125.9	
State banks	43.5	48.1	57.5	60.6	
Bank Pembangunan Daerah (BPDs)	2.2	3.1	3.3	3.6	
Domestic private banks	30.5	37.7	49.3	54.4	
Foreign private banks (incl. joint-ventures)	6.7	5.4	6.8	7.3	
Demand (investment credit by sector)	82.9	94.3	116.9	125.9	
Electricity, gas and water	3.8	3.7	5.1	4.5	
Construction	2.9	4.2	6.8	8.9	
Transportation	7.6	9.3	10.5	11.8	
Other sectors	68.6	77.1	94.5	100.7	

Table 15 Supply and demand of bank investment credit (IDR trn)

Source: Bank Indonesia (2005)

2. Providers of investment credit

In June 2005, five state-owned banks (of which Bank Mandiri, Bank Negara Indonesia and Bank Rakyat Indonesia are the largest) and 26 regional development banks (*Bank Pembangunan Daerah* or BPD) had provided about 51 percent of total investment credits of IDR 125.9 trillion. Domestic private banks accounted for 43 percent of total credits extended, followed by foreign private banks (6 percent).

3. Commercial banking services provided to regional governments and PDAMs

Most all payment transactions and fund transfers between regional governments and external parties are channelled through commercial banks (e.g. payments of salaries to regional government employees, payments of water bills from households to PDAMs, etc.). More importantly, the Ministry of Finance channels central government transfers to the

regions through the commercial banking system. In 2004, such transfers amounted to IDR 129.7 trillion (or almost US\$13 billion).

6.4. ANNEX 4 THE NEW REGULATION ON REGIONAL BORROWING

6.4.1. INTRODUCTION

On 9 December 2005, the President of Indonesia signed a new implementing guideline on regional borrowing in response to changes in the laws on regional autonomy and fiscal decentralization (Law 32/2004 and Law 33/2004, respectively). The new guideline, better known as PP54/2005, is highly relevant for the development of municipal credit markets as it contains specific regulations on regional borrowing in the form of bank loans and municipal bonds. This Annex summarizes the key features of PP54 and its implications for the establishment of a water revolving fund.

6.4.2. SCOPE OF THE REGULATION

PP54/2005 regulates loan transactions undertaken by provinces, kabupaten and kota. Article 1.9 defines a regional loan as: "a transaction to enable a region to receive money or benefits of monetary value from a third party with the obligation on the part of the region to repay [the money or benefits received]". The guideline classifies regional loans as follows:

- Short-term loans (with maturities not exceeding one year).
- Medium-term loans (with a maturity of at least one year, but which must be repaid in full before the end of the five-year term of the Head of the Region who signed the loan agreement).
- Long-term loans (with a maturity of at least one year, but not subject to the restriction that applies to medium-term loans).
- Municipal bonds.

This Annex discusses long-term loans and municipal bonds only, as loans with maturities of five years or less are not relevant to the needs of the water and sanitation sector.

6.4.3. REGULATIONS PERTAINING TO LONG-TERM LOANS

I. Restrictions on long-term borrowing from a foreign national.

Article 3.1 explicitly forbids regions to borrow directly from a foreign national (pihak luar negeri), except in the form of a municipal bond issue. Loans extended by a foreign national (such as a multilateral bank) must be approved by BAPPENAS and channelled through the Ministry of Finance. PP54/2005 does not disallow a region to borrow from an Indonesian national in currencies other than Rupiah. This implies that multilateral banks may channel US\$-denominated loans to region governments through a domestic commercial bank.

2. Restrictions on long-term loan guarantees.

Article 4.1 explicitly forbids regions to guarantee loans extended to third parties, including regional enterprises such as PDAMs. Article 4.2 disallows regions to collateralize regional government revenues or property owned by a region (except for a municipal bond issue; see para A4.11).

3. Projects eligible for long-term loan financing.

Regional governments must use the proceeds of long-term loans to finance 'investment projects that generate revenues'. According to Article 7.3 of PP54/2005, a project is

considered 'revenue-generating' if two conditions are met: (i) the project generates revenues directly; and (ii) these revenues accrue to the regional government budget (APBD). In practice, MoF considers a project as revenue-generating if at least one component of a project meets the above criteria (such as a road project that includes a weighing bridge).

4. Global regional lending limits

According to Law 17/2003 on State Finances, net public debt must not exceed 60 percent of GDP. PP54 states that the Minister of Finance will issue a cumulative lending limit for regional governments in August of every year, and prepare a manual for assessing the limit (Art. 10). Experience suggests that both the preparation of the manual and the issuance of a regional lending limit will be delayed. This, in turn, may result in delays in central government approval of long-term loan proposals submitted by regional governments.

5. Individual regional lending limits.

Apart from the global lending limit, which applies to all regions in the country, an individual regional government must meet four criteria to obtain central government approval for a long-term loan (Art. 12):

- total outstanding loans ≤ 75% non-earmarked revenues in the previous fiscal year;
- ii. debt service coverage ratio (DSCR) \geq 2.5;
- iii. no arrears on outstanding loans from the central government; and
- iv. formal approval of the regional parliament (DPRD).

According to the interdepartmental working group that was responsible for preparing PP54/2005, arrears on sub-loans to regional government enterprises are not considered when assessing regional lending limits. DPPP, however, has recently indicated that it does not wish to conclude a sub-loan agreement with a regional government before it has repaid all its arrears, including arrears (if any) on loans to its PDAM.

6. Central government approval for long-term loans,

Regions must obtain central government approval for all long-term loans. As shown in Table A4.1, the evaluation and approval procedures vary by source of finance. The Minister of Finance is responsible for the approval of all long-term loan proposals financed by the central government. In recent years, most approved loans to regional governments were financed from the proceeds of IBRD and ADB loans. The Minister of Finance will only evaluate regional loan proposals that on list of 'priority projects for foreign loans and/or grants' (*Daftar Rencana Prioritas Pinjaman dan/atau Hibah Luar Negeri* or DRPPHLN). This list is prepared by BAPPENAS, based on the advice of technical ministries such as MPW. The Minister of Home Affairs is responsible for approval of long-term loans financed from non-governmental sources. There is reason to believe that many regions do not report long-term proposals to MoHA in order to avoid a lengthy evaluation and approval process.

Funding source	Responsible for evaluation	Responsible for approval /a			
Central government (foreign sources)	BAPPENAS, technical ministries, Ministry of Finance	Minister of Finance, based on advice of Minister of Home Affairs			
Central government (domestic sources)	Ministry of Finance	Minister of Finance			
Other sources	Ministry of Home Affairs	Minister of Home Affairs			

Table 16 Evaluation and approval of long-term loan proposals by regions

Source: ESP, based on PP54/2005 /a Subject to compliance with the global regional lending limit issued by the Minister of Finance

6.4.4. REGULATIONS PERTAINING TO MUNICIPAL BONDS

I. General restrictions on municipal bond issues

Municipal bonds must be issued on a domestic capital market and comply with prevailing capital market regulations. In addition, a municipal bond must be denominated in Rupiah and issued at 100 percent of face value (discounted bonds and index bonds are explicitly disallowed). The proceeds of a municipal bond issue can only be used to finance revenue-generating projects (see para A4.11 for details).

2. Restrictions on guarantees to municipal bondholders

Article 4.3 of PP54/2005 limits regional government guarantees to bondholders to revenues of a bond-financed project government property that forms an integral part of that project. Article 23 states that the central government does not guarantee municipal bond issues.

3. Restrictions on bond issues for non-revenue generating projects

Regional governments must use the proceeds of municipal bonds to finance 'public sector investments that generate revenues'. Because the term 'revenue-generating' is not defined separately for municipal bonds, it may be assumed that the definition for long-term loans (see para A4.5) would apply. This interpretation would allow regional government to issue bonds to finance a project that is revenue-generating but not financially feasible (such as a solid waste management project). In that case, bondholders would be repaid from both project cashflows and regional government general revenue. For two reasons, the Consultant assumes that, in case of the municipal bonds, the term 'revenue-generating' should be interpreted as 'full cost-recovery'. Firstly, PP54/2005 does not stipulate lending limits for individual regional governments who plan to issue a bond. This implies that projects financed from bond proceeds are not expected to affect the borrowing capacity of a region Secondly, the PP states that only 'revenue bonds' may be issued. Such bonds are normally exclusively serviced from project revenues.

4. Central government approval

Regions must obtain approval of the local government (DPRD) and the Minister of Finance to issue a bond. The evaluation and approval process will be regulated by a ministerial decree that is expected to be issued in the first half of 2006.

Implications for the establishment of the Indonesia Water Revolving Fund

5. Continued dependence on MoF as a conduit for multilateral loans to regional governments

Although the IWRF is intended as a financially self-sustaining entity, it is expected that multilateral banks will support the fund by providing sub-loan financing for investments in participation certificates of central and regional participants. The PP suggests that approval of such loans would be time-consuming, as it would require the involvement of the Ministry of Public Works, BAPPENAS, the Ministry of Finance and the Ministry of Home Affairs. To make matters worse, the disbursement of such loans would be managed by DPPP, which requires up to 12 months to prepare a sub-loan agreement. The new requirement of the annual issuance of a global lending limit for regional governments may result in further delays.

6. Uncertainty about the status of a revolving fund as a conduit of multilateral loans

PP54/2005 disallows regional governments to borrow from a foreign national. It does, however, allow regions to borrow from an Indonesian national (upon approval of the

Minister of Home Affairs). The PP does not clarify if multilateral loans channeled to regional government through the IWRF, to be established as an Indonesian legal entity, would constitute 'borrowing from a foreign national'.

7. Limited availability of credit enhancements

PP54/2005 severely restricts the ability of regional governments to provide credit enhancements.

- <u>Long-term loans</u>. Regional governments are not allowed to guarantee loans to their own enterprises (such as PDAMs), or to collateralize regional government revenues or public property for the purpose of guaranteeing a long-term loan.
- <u>Municipal bonds</u>. A regional government may only issue a municipal bond to finance a full cost-recovery project. Project revenues and regional government contributions to the project may be offered to bondholders as credit guarantees. The central government does not guarantee municipal bond offerings.

8. Requirement to offer bonds on a domestic capital

PP54/2005 rules out the private placement of bonds. This restricts the ability of the IWRF to act as a bond bank.

9. Requirement to finance revenue-generating projects

A regional government is only allowed to borrow long-term for projects that generate direct revenues accruing to the regional government budget. This means that the IWRF cannot co-finance loans for projects that do not contain a revenue-generating component (such as investments in primary drainage systems or reforestation of upper catchment areas).

6.5. ANNEX 5 THE US-JAPAN CLEAN WATER FOR PEOPLE INITIATIVE

(Abbreviated fact sheet, as of 27 July 2005)

6.5.1. PURPOSE OF INITIATIVE

In September 2002, the United States and Japan launched the Clean Water for People Initiative at the World Summit on Sustainable Development (WSSD) in Johannesburg. This partnership is designed to provide safe water and sanitation to the world's poor, improve watershed management and increase the productivity of water. The partnership will expand and accelerate international efforts to achieve the goals contained in the Millennium Declaration and implement the Johannesburg Plan of Implementation including halving, by 2015, 'the proportion of people who are unable to reach or afford safe drinking water' and 'the proportion of people without access to basic sanitation.' The U.S. and Japan will strengthen their cooperation and pursue joint or parallel projects wherever possible.

6.5.2. PARTNERS

The partners in USAID/JBIC Collaboration on Water are: United States (U.S. Agency for International Development, U.S. Department of State) and Japan (Japan Bank for International Cooperation, Japan Ministry of Foreign Affairs).

6.5.3. PARTNERSHIP TARGETS

The operating objectives of the USAID/JBIC Collaboration on Water are to:

- Select pilot countries with active JBIC and USAID programs.
- Identify activity areas of mutual interest within pilot countries.
- Refine and develop joint or parallel project proposals in each country.
- Review, approve and execute joint/parallel interventions in each country.

Additionally, the partners have committed to semi-annual monitoring meetings to assess progress and determine future steps.

6.5.4. PROGRESS TOWARD TARGETS

In 2003, JBIC and USAID selected three initial pilot countries: the Philippines, Indonesia, and Jamaica; and identified financing for water and wastewater infrastructure as a priority area for collaboration. In particular, the partners expressed interest in creating new ways for cities and towns in developing countries to gain access to financing to build infrastructure to supply basic services, such as access to clean water and removal and treatment. In September 2003, U.S. and Japanese officials participated in a workshop on the U.S. State Revolving Fund model used at the state level to finance investments in water treatment and distribution and wastewater treatment by municipalities. (For more information on Revolving Funds, visit the U.S. Environmental Protection Agency's website: www.epa.gov/owm/cwfinance/index.htm.). Since that time, the U.S. and Japan have been working through representatives in each country to identify specific opportunities to use the revolving fund model and other approaches to encourage private financing for local infrastructure projects.

6.5.5. INDONESIA

A memorandum of understanding between USAID Indonesia and Japan Bank for International Cooperation (JBIC) was signed on June 9, 2005. This partnership supports a common agenda in the development of water resource management. It identifies water and waste management in Indonesia as an important link for collaboration. The partnership will be implemented through USAID's ongoing Environmental Services Program (ESP) and JBIC's Medan Flood Control Project (MFCP). The new initiative is called the Medan Water and Waste Management Project (MWWMP) and will provide safe water and sanitation services to the urban marginalized communities in North Sumatra by improving drainage control and water and waste management. It will work in close collaboration with the local government, water and sanitation operators, NGOs and community members. The formalization of the MOU will be followed by an action plan that will outline the implementation process of MWWMP. The project will provide support until September 2008.

6.5.6. NEXT STEPS

JBIC and USAID intend to hold the next monitoring meeting late in 2005 and present a review of progress at the fourth World Water Forum in March 2006.

6.5.7. RESOURCES

The Clean Water for People Initiative builds upon existing U.S. and Japanese activities in water resources management for developing countries. During WSSD in 2002, the United States announced the 'Water for the Poor' signature initiative, committing to provide US\$ 970 million over a period of three years beginning in fiscal year 2003, for water-related projects developed through bilateral assistance programs. USAID Administrator Andrew S. Natsios announced in March of 2005 that the U.S. is ahead of target in meeting this commitment.

The Clean Water for People partnership is intended to promote collaboration through the use of existing U.S. and Japanese development assistance mechanisms. In addition to grant support, the U.S. provides local currency investment guarantees to encourage private investment in water and other infrastructure services. The investment guarantees, also called credit guarantees, are provided through a USAID tool called the Development Credit Authority (DCA). USAID offers these partial credit guarantees to local financial institutions in developing countries to create a risk-sharing relationship between private financial institutions on principal from a loan when the lender is not fully repaid. USAID provides guarantees to support private financial institutions in making loans for projects across a range of development areas, including water and sanitation infrastructure. By reducing the risk of loss, guarantees can help build the capacity of local financial institutions to lend to new sectors or underserved areas as well as develop new loan products. Japan supports the Clean Water for People partnership through grant and loan aid programs as well as technical cooperation with local municipalities, non-governmental organizations and the business sector.

6.6. ANNEX 6 REFERENCES

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