MAKING WATER REFORM HAPPEN:
The experience of the
Philippine Water Revolving Fund*

Jeremias N. Paul, Jr.
Undersecretary
Department of Finance
Republic of the Philippines

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This paper examines the experience of the Philippine Water Revolving Fund as part of broader water reforms driven, in part, by the Millennium Development Goal (MDG) targets. The case demonstrates that financing reforms need to be accompanied by other policy reforms, such as strengthening regulation and institutions. The experience of the Philippine Water Revolving Fund indicates that comprehensive water sector reform is a gradual and fluid process that can only be achieved through the close collaboration of all concerned stakeholders and the alignment of their incentives for change.

*The views expressed herein are those of the author and do not necessarily reflect the views of the OECD, its member countries, nor the official position of the Philippine Government.
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Abstract: Water sector reform in the Philippines was partly borne out of the need to achieve the country’s UN Millennium Development Goal (MDG) targets. Philippine authorities recognised early on that government resources were not sufficient to address the huge financing requirements of the water sector. Leveraging government funds with official development assistance (ODA) and private sector funds was seen as a necessary ingredient of reform. The experience of the Philippines has proven that water sector reform is a “package”. Financing reforms need to be accompanied by other policy reforms, such as regulatory and institutional strengthening. Indeed, the experience under the Philippine Water Revolving Fund (PWRF) indicates that comprehensive water sector reform is a gradual and fluid process that can only be achieved through the close collaboration of all concerned stakeholders and the alignment of their incentives for change. The PWRF Support Program involved working along the water utility financing continuum to develop innovative credit enhancement mechanisms, strengthen local water utility operations, spur project development, strengthen economic regulation, and set out a strategy for the rationalisation of public investment. All of these efforts combined to prime the enabling environment for private sector financing.

WHY WATER REFORM WAS NEEDED IN THE PHILIPPINES

The challenge confronting the water sector in the Philippines, as in many developing economies, lies in meeting the staggering financing and capital investment required to increase access to clean water and achieve the MDG milestones. In its 2010 Update Report, the Joint Monitoring Program of the World Health Organization (WHO) and the United Nations International Children’s Educational Fund (UNICEF) reported that the Government of the Republic of the Philippines (GRP) was on track to achieve its 2015 MDG targets. The same report stated that piped water systems now reach 60% of households in urban areas and have grown from 8% in 1990 to 25% in 2008 in rural areas.

While the increase is notable, the country’s continued rapid population growth means that in spite of the progress made over the past 20 years, an estimated 15 million Filipinos still rely on questionable sources of water to meet their daily needs. At the current rate of expansion of the potable water system, the population lacking access to formal water service providers is expected to more than double by 2020. The Philippine government recognizes that alone it cannot finance the huge financing requirements of the sector. The question of how to address this funding gap became the initial catalyst for broader water sector reform.

Towards this end, Executive Order (EO) 279 was issued in 2004 mandating creditworthy water utilities to shift from government financing to market-based financing sources. Building on this policy pronouncement, the PWRF program was initiated. Funded by the United States Agency for International Development (USAID) and the Japan International Cooperation Agency (JICA), this program sought to improve the policy environment for water sector financing to spur the entry of more private sector financing.

MAKING WATER REFORM HAPPEN – THE PWRF STRATEGY

The objective of the PWRF program was simple: to increase the pool of financing available to the water sector by leveraging limited public funds with ODA and private sector financing, thereby expanding access to clean water in the Philippines. While designing an innovative financial mechanism was a key component, the PWRF program adopted
the objective of mobilising private finance as a lever of change to improve the governance and efficiency of the entire water sector.

Working across the water utility financing marketplace, the program targeted technical support in three key areas – “Innovative Financing”, “Operational Strengthening”, and “Regulatory Clarity” - to mitigate credit risk, operational risk, and political risk, respectively. These risks are the three major reasons keeping private financial institutions (PFIs) out of the water sector.

The PWRF program worked to address these three areas simultaneously to gain support from various stakeholders. As illustrated in the diagram below, PWRF interventions primed the market at specific entry points with the vital “Strategic Alliance Building” element tying the work together.

This paper illustrates how holistic water reform is a gradual and fluid process that can only be achieved by consensus building and forming strategic partnerships with concerned stakeholders. It also shows that while capacity building and innovative financial mechanisms are very important and may create pilot-level success stories, scaled systemic change in the water sector is only achieved through strategic (and complex) policy and regulatory reform. The paper presents the interventions in a thematic fashion, as follows:

Section 1: Innovative Financing
Section 2: Operational Strengthening
Section 3: Regulatory Clarity
Section 4: Strategic Alliance Building
Section 5: Conclusion and Lessons Learned
SECTION 1: INNOVATIVE FINANCING

Context. In the Philippines, funding for water utilities has traditionally been a mix of public monies (grants and concessional loans), donor funds (ODA), and revenues from customers. In OECD parlance, these are the “3 T’s” – taxes, transfers and tariffs. Commercial bank financing was not affordable and did not offer a long-enough tenor to be a viable option for utilities (which often need up to 20-year repayment terms).

In 2004, the idea of commercial banks competing to finance a water and sanitation project was practically unheard of. Banks did not have the technical capacity to evaluate water projects, and the unclear institutional and legal environment of the sector made identifying bankable projects very challenging. At the same time, a huge financing backlog in the sector compelled the government to look for ways to mobilize private sector funds. The passing of EO 279 in 2004 directed creditworthy water utilities to shift from government financing to market-based financing sources.

PWRF Financing Interventions. Building on this policy shift, USAID and JICA worked in partnership with the Department of Finance (DoF) to design a revolving fund for water supply and sanitation projects that leverages ODA and public funds with commercial bank loans. The revolving fund itself provided a facility to entice PFIs to enter the water sector by reducing credit risk. But to fully catalyse its use, the PWRF program supported complementary activities focused on increasing potential creditors’ understanding of water utility business models. The three core PWRF financing interventions were: (1) the water revolving fund mechanism: (2) the credit rating system; and, (3) training on water project appraisal.

1. Water Revolving Fund Mechanism. Mobilising private financing for the water sector meant addressing a set of overarching barriers preventing PFIs from entering the water sector, including:

- Loan tenor limitations: PFIs lend 7 - 10 year money, while utilities require 15 - 20 year repayment terms.
- Collateral-based lending: The collateral offered by utilities is largely underground which, in the eyes of PFIs, is not a viable option. There is a need for cash flow-based lending.
- Lack of business plans: Few utility managers had sound business plans that PFIs could analyze.
- Information asymmetries and perceptions of high risk: The lack of market information heightened the perceived risks of water utilities.

With these issues in mind, USAID, JICA, and the DoF established the PWRF, which is, in simple terms, a co-financing arrangement that blends public and ODA funds, re-lent through the Development Bank of the Philippines, with internal funds from PFIs to achieve lending terms that are affordable to water utilities. A PFI funds 25% to 50% of a loan, but a credit enhancement mechanism limits the bank’s exposure to 85%. By blending concessional and PFI financing, the PWRF mechanism offers:

- Affordable pricing: The resulting blended rate is lower than pure commercial financing.
 Longer maturity: The loan to end borrowers has up to a 20-year tenor. This longer tenor is central to creating affordability for utilities, as annual debt service is far lower than with a traditional 7 or 10-year loan.

 Alignment with PFI best practices: The PFI loan is taken at market terms, that is, lending decision criteria and due diligence are in line with each financial institution’s lending practices. PFIs are not asked to compromise any of their terms to participate in the PWRF.

 Credit-enhancing guarantee: PFIs apply for a credit risk guarantee that covers up to 85% of their loan, which is provided by a private domestic guarantee corporation. The guarantee is in effect a ‘collateral substitute’, where the utilities can access financing on a cash flow basis without having to put up real estate as collateral.

 Altogether, the PWRF mechanism created a platform to encourage PFIs to enter the water utility financing marketplace. However, realising that financial mechanisms alone will not catalyse investment, the PWRF program supported the development of two additional financial market-enabling tools: a credit rating system and a project appraisal guide.

 2. **Credit Rating System.** Credit ratings are fundamental to commercial bank lending models. The PWRF program and the Philippines LGU Guarantee Corporation (LGUGC) helped create a risk rating system that added a deeper political risk dimension to the PFI’s traditional screening criteria, which are generally more focused on financial and managerial factors.

 Working with Credit Rating and Information Services of India Ltd. (CRISIL), a subsidiary of Standard and Poors, the PWRF program developed a credit rating system that covers economic base, political, management, technical and financial risk assessment, providing a comprehensive outlook on the creditworthiness of the borrower. The LGUGC credit rating system offers an independent and transparent lending standard, and allows utilities to understand how to improve credit scores and access cheaper financing. The rating system itself complemented the PWRF mechanism by offering more than the coverage of a PFI’s financial exposure; it also gave PFIs a tool to better understand the marketplace.

 3. **Water Project Appraisal Training.** Complementing the revolving fund mechanism and the credit rating system were capacity building efforts in the area of water project appraisal. While many PFIs were eager to enter the market, the majority had no prior experience of lending to water service providers and thus, had no standard measure of project bankability. The PWRF program organised a series of nationwide trainings on how to evaluate water projects. The training aimed to familiarise bank officers with the technical, institutional, and financial dimensions of lending to water service providers. Modules covered: (a) technical concepts such as water supply development, hydrology, non-revenue water reduction, metering, tariffs, project design; (b) institutional landscape, including a primer on laws, regulations, and policies impacting the sector; and (c) financial appraisal, which incorporated forecasting revenues, operations, and maintenance, as well as modeling payback periods and return on investment.

 The culmination of these training workshops is embodied in a Water Supply Project Appraisal Guidebook for Investors and Decision Makers. The guidebook increased the confidence of PFIs to enter the marketplace by turning the many moving pieces of a water utility into a clear and cohesive business model. Alongside the
capacity building workshops, the guidebook gave private financiers the hands-on training to grasp water utility business models and make smart lending decisions. These ultimately reduced perceived risks tied to the PFI's inexperience in the sector.

**SECTION 2: OPERATIONAL STRENGTHENING**

**Context.** The Water Service Provider (WSP) marketplace in the Philippines is highly fragmented and is estimated to consist of over 6,000 water utilities. About 90 percent of these utilities have less than 5,000 customers each. Weaknesses of these water utilities include spotty revenue collection, poor general business planning and service delivery standards. In such an imperfect WSP marketplace, highly variable utility performance and a lack of operational readiness acted as significant barriers (operational risk) preventing PFIs from entering the utility financing marketplace.

**PWRF Operational Strengthening Interventions.** The PWRF program recognised that until utilities could operate along the lines of a commercial enterprise and develop bankable projects, private financing would be unwilling to sustain and deepen its involvement in the sector. The three core PWRF operational strengthening interventions were: utility reform, association development and the water operators’ partnership, and project development.

1. **Utility Reform.** A common thread running through the fragmented utility marketplace in the Philippines was the need for strengthened business planning skills, a core requirement for accessing private financing. With the aim of making utilities ‘bankable’ in the eyes of PFIs, the PWRF program developed a Utility Improvement Glide Path that included three elements:

   ✓ **Ring fencing:** The common practice in local government unit (LGU)-run utilities is the co-mingling of utility accounts (costs and revenues) with the general account funds, which engenders a lack of operational clarity and accountability. The ring fencing strategy separates the water utility accounts and operations from the overall LGU funds. It allows a utility to operate as an independent economic enterprise and provides management the information they need to balance revenue generation with operations and maintenance (O&M) costs and capital investment needs.

   ✓ **Business planning:** As an independent enterprise, the utility’s management requires training in data collection, analysis, forecasting, investment planning, and cost-based tariff determination. By training utilities to map their potential markets, water supply requirements, infrastructure and operational needs, as well as financial outlays, they become more attractive borrowers to PFIs.

   ✓ **Performance contracting:** Outsourcing certain services can achieve efficiencies. However, it must include clear scopes of work, incentives, delineation of responsibilities, performance targets, and delivery timelines so that the utility management team can improve service coverage and performance standards in a strategic and systematic manner.

2. **Association Development and the Water Operators Partnership.** The PWRF program recognized the catalytic impact of utility associations and partnered with the Philippine Association of Water Districts (PAWD) to establish a Water Operators Partnership Program (WOP) under the latter to strengthen its governance structure.
The WOP is a capacity building platform, with four cornerstones: utility twinning arrangement, training, knowledge management, and continuous improvement benchmarking.

Under the WOP, the PWRF program formalised and expanded the existing twinning framework between the water districts, strengthening water service providers (WSPs) through knowledge sharing, mentoring, and benchmarking in four key areas: non-revenue water management, strategic planning, water quality, and energy efficiency.

3. **Project Development.** A prerequisite for attracting private finance in any sector is sound project development. Even as the PFIs’ interest in entering the utility financing marketplace began to grow, a dearth of viable projects held back the newfound momentum. Designing bankable utility service expansion projects requires coupling the skill sets of engineers and financiers to evaluate capital expansion requirements and the revenue streams that help define the program’s ROI.

While the utility staff generally has such skill sets, a number of factors complicate their ability to design projects. For example, some utilities’ tariffs are not cost-based, making them unable to cover their capital and operating costs (which contributes to dependency on public financing). Other utilities might use viable tariffs, yet their poor financial management capacity undermines their ability to forecast revenues and costs. For many utilities, simply understanding the available financing facilities and the mechanics behind assembling a proposal to access commercial financing prevented them from developing new projects.

The PWRF program identified motivated utilities, designed training modules, and delivered capacity building support in project development focused in two areas:

- **Water supply feasibility:** The PWRF program helped utilities improve or update water supply feasibility studies that would feed into pre-investment needs, creditworthiness, and bankability. It involved staff from commercial banks to help mentor utility managers in project design.

- **Septage business line:** Capitalising on the inherent link between water service delivery and sanitation, the PWRF program drafted a guidebook outlining septage feasibility studies and a business model with an accompanying excel-based planning toolkit to help the utilities estimate the investment, maintenance, and tariff requirements of a septage program. Training, outreach, and project development support followed, which helped build a healthy backlog of septage projects to be financed.

The ability to design bankable projects using the language and financial analysis expected by PFIs was a fundamental step in helping utilities access private sector financing. Sound business planning is a prerequisite to accessing finance and beyond that, it builds the confidence of utility managers to run their operation as a growing commercial entity. Altogether, this set of PWRF operational readiness interventions helped prepare utilities to access commercial bank finance.

**SECTION 3: REGULATORY CLARITY**

**Context.** Even while commercial banks were becoming increasingly interested in the water sector and utilities became more attractive borrowers, comprehensive sector reform still required a new level of regulatory clarity. The
major governance challenges facing the sector are fragmented institutions, disorganized planning, politisation, and lack of reliable data. In the eyes of the PFIs, clear rules of the game will help reduce the political risk premium.

A key factor driving the unclear regulatory landscape in the Philippines is the highly disintegrated market of water service providers that had evolved over the years. Among the government entities performing regulatory functions are the Department of Natural Resources (DENR), Department of Health (DOH), National Water Resources Board (NWRB), Local Water Utilities Administration (LWUA), LGUs, and the Metropolitan Water and Sewerage Services (MWSS).

This multi-agency involvement has led to a number of potential conflict-of-interest issues. For example, LWUA sets tariff rates but it is also a specialised government financing institution. LGUs and MWSS are both regulators and service providers at the same time. Tariff setting, especially by LGU-run utilities (which provide the bulk of water services in the country), is not cost-based and results in inefficient financial performance of the water utilities. Aware of these problems, the government prioritized the strengthening of economic regulation within the water sector.

**PWRF interventions on enhancing regulatory clarity.** The regulatory reform work under the PWRF program can be considered the most transformational in nature with regards to catalysing private sector finance for water utilities and expanding access to clean water. Efforts to enhance regulatory clarity in the water sector include strengthening the NWRB, advocacy support for an independent Water Regulatory Commission, and public investment rationalisation.

1. **Strengthening the NWRB.** The NWRB has the mandate but lacks the capacity to exercise its economic regulation function. To address this concern, the PWRF program complemented other donor efforts to strengthen the institutional capacity of the agency. In particular, it assisted the NWRB in establishing asset valuation guidelines critical to its tariff review functions for private water service providers. It also trained the NWRB staff and developed a user guide on the tariff setting methodology for water districts.

2. **Advocacy Support for an Independent Water Regulatory Commission.** Bills calling for the creation of an independent economic regulator for the water sector have been filed in Congress since 1997. However, these gained little traction in the legislature due to lack of awareness about the sector and an absence of an executive champion. Learning from these lessons, the PWRF program provided technical assistance in helping draft a Water Regulatory Commission (WRC) bill, conducted briefings and orientation seminars about the water sector to legislators and their staff as well as supported advocacy work among key stakeholders. A key platform for this advocacy was the Philippine Development Forum Sub-Working Group on Water Sector and Sanitation (SWG WSS), a leading forum for advancing regulatory reform in the sector.

The WRC will serve as an independent quasi-judicial regulatory body for the water supply, sewerage and septage management sectors. Its functions include policy setting; issuance of rules and regulations; licensing; setting of standards and methodologies; rate setting, review and approval; imposition and collection of fees, charges, and penalties; exercise of quasi-judicial functions; review and suspension of contracts; consumer protection; and monitoring. As of this writing, the Bill has been filed in both houses of Congress.

The transformational ‘teeth’ built into the WRC is its ability to impose punitive measures on WSPs that do not meet network expansion targets. This new regulatory stick will help drive increased access to clean water and
improved service provision, which, in turn, will grow the marketplace for private sector financing to support this expansion.

3. **Public Investment Rationalisation.** Since government funds, e.g. grants and concessional loans, had traditionally supported the water sector, a clear plan for future public funding had to be established to bring transparency to the financing marketplace. Ultimately, if public funds are allocated in a haphazard fashion, commercial banks will be restrained from entering the market due to fears of unforeseen concessional lending undermining their projected return on investment. Thus, the PWRF program provided technical support for the drafting of a public investment rationalisation framework.

This framework proposes a prioritisation and allocation criteria anchored on economic and social objectives. The criteria were pilot tested on 455 “waterless” municipalities\(^1\) identified by the government, and results shared with relevant government agencies who expressed support for the framework. The framework and a proposed executive issuance that issues the policy are currently awaiting Cabinet approval.

Implementing the rationalisation framework would entail building the capacity of government officials to apply a three-step allocation process to high-need municipalities. The process included screening for eligibility (intended use), prioritisation (social and economic indicators), and readiness of the project and WSP.

Public Investment Rationalisation will help the government ensure the optimum, judicious, effective and efficient use of existing public resources. Objective and transparent public resource allocation creates the regulatory market clarity that commercial banks need to deepen their investment in the water sector.

### SECTION 4: STRATEGIC ALLIANCE BUILDING

Making reform happen, in any sector, requires incorporating the points of view and sensitivities of all affected stakeholders. The PWRF program’s success is highly correlated with its efforts to establish synergistic working relationships with industry leaders. While this engagement and public buy-in can be seen at nearly every program activity, it is best summed up in the PWRF program’s crucial role as the provider of the secretariat support to the Water Supply and Sanitation Sub-Working Group (SWG WSS) of the Philippine Development Forum. The SWG WSS is co-chaired by the DoF, JICA and USAID with membership from government agencies, the donor community, civil society and the private sector.

As the secretariat of the working group, the PWRF Support Program helped facilitate discussion, healthy debate and consensus on substantive issues affecting WSS. These included discussions on the Water Supply and Sanitation Roadmap, the drafting of the Water Regulatory Commission bill, and the rationalisation of the water sector financing.

### SECTION 5: CONCLUSION AND LESSONS LEARNED

Water sector reform in the Philippines is partly borne out of the need to bridge the funding gap that stood in the way of achieving the country’s MDG targets. While initially focused on mobilising private financing to fill this gap, sector-

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\(^1\) As defined by the Philippine Government, waterless municipalities are those with at least 50% of the population without access to safe water supply sources.
wide reform took hold as regulatory and operational strengthening efforts reinforced the drive to attract commercial bank loans. By working at key points across the utility financing marketplace, the Philippines is beginning to experience transformational change in how it will expand water service coverage to its growing population. This virtuous cycle of reform, which builds from its own momentum, is illustrated below:

As the Philippine experience under the PWRF shows, water reform happens when compelled by a regulatory *push* alongside a financial *pull*, which reinforce one another and align incentives for change that benefit all stakeholders.

To date, there are already illustrative results from the PWRF program.

- Since 2007, 16 water supply projects have achieved financial closure involving private bank financing, ten of which were funded 90-100% by PFIs. The 16 projects have a total loan value of PhP3.94 billion (US$94 million), of which PhP2.4 billion (US$57 million) came from PFI funds. These projects will serve 1.8 million people.

- Fourteen of the PFI projects were able to secure credit risk guarantee from LGU Guarantee Corporation, co-guaranteed by USAID’s Development Credit Authority. Two were closed without guarantees, and one PFI
agreed to extend its loan tenor from 10 to 15 years. The latter is an indication of the growing comfort of private commercial banks to water sector lending.

A number of lessons can be gleaned from the experience of PWRF in making water reform happen. These include:

- **Commitments to attaining the MDG targets spurs action.** Commitments to attain the MDG targets can catalyse action to think of non-traditional ways of raising finance for the water sector. Only a few governments can meet the entire financing needs of the water sector, including expanding access to clean water. Leveraging private funds with public monies not only catalyses service expansion, it also relieves pressure on the budget.

- **Power of public private partnerships (PPPs) in the water sector.** Private financing coupled with public monies can drive sector-wide transparency, efficiency and accountability in an apolitical and objective manner; the rules of the game to access commercial loans help drive broad water sector reform.

- **Aligning incentives for change.** Change in any environment requires buy-in from sometimes divergent interests. Benefits to all stakeholders must be clear and advances must be recognised along the way to build momentum from the government, banks, and utility operators.

- **Project execution is as important as the policy environment.** Beyond providing an enabling environment for sector reform, technical support must include project development to take stakeholders from theory to practice and begin the implementation stage of reform.

- **Importance of strategic communications and broad consultations.** Broader sector reform – regulatory, operational and financial – will not take hold without sustained communication efforts to key players and leaders. Plugging into the right platform to push the reform messaging forward is a critical step in the reform process.

- **Need for synergy.** Passing a law or engineering an innovative financial mechanism will not by itself catalyze change. A regulatory push must be twinned with a financial or operational pull to spark movement across the sector. Once momentum builds, program efforts can shift from galvanizing support for reform to navigating through the details.

- **Addressing broader issues in the sector.** Building on the experience of the PWRF, recent efforts to reform the water sector are now addressing the broader issue of integrated water resources management (IWRM) and its proper implementation. While the Philippines has long enacted a water law - the Water Code of the Philippines in 1976 – which governs the ownership, appropriation, utilization, exploitation, development, conservation and protection of the country’s water resources, its proper implementation leaves much to be desired. The largely fragmented water sector where more than thirty government institutions are involved either in water resource management or in service delivery is now the main challenge to be addressed. It is in this context that proposals to create a national water management superbody are being discussed. The mission of such a superbody would be “to manage and protect the country’s water resources for domestic water supply, sanitation, irrigation, hydropower, navigation, flood control and recreation including the enhancement and maintenance of water quality, conservation of watersheds, control of water pollution and environmental restoration without compromising the natural ecosystem functions and services.”


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