



YALE UNIVERSITY

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Joint Venture Public-Private Partnerships for Urban Environmental Services

Report on UNDP/PPPUE's
Project Development Facility
(PDF)
(1995 –1999)

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Foreword

Much has been written about the desperate pressures that the world's cities are facing as the new millennium begins. Much has also been said about the need to devise new ways of financing sustainable development in countries faced with a decline in official development assistance. The Public Private Partnerships for the Urban Environment (PPPUE) Programme, which initiated the Project Development Facility (PDF) described in this publication, has pioneered concrete solutions to address these problems.

PPPUE has developed a unique approach to increasing the access of the urban poor to water, sanitation, waste and energy services. Private and public sectors are brought together as genuine partners with shared responsibilities, shared risks, and shared benefits.

The United Nations Development Programme (UNDP), Sustainable Project Management (SPM), and Yale University have been essential partners in the development of the PDF. The Sustainable Energy and Environment Division of UNDP has played a co-ordinating role, both at headquarters and through the UNDP country offices. SPM, a not-for-profit Swiss association, has contributed negotiation and project development experience through its network of experts. Yale University was instrumental in developing the PPPUE Global Learning Network, distilling the global experience of public-private collaboration and facilitating its exchange.

This publication details the fruit of this innovative collaboration. We hope it will provide the impetus for the next phase of the PPPUE and for other initiatives that will substantially improve the livelihoods of the urban poor.

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Contents

Foreword	2
I Introduction	4
II The Urban Challenge	7
III The Joint Venture PPP Approach	10
IV The PPPUE PDF Process	15
V Project Actors	21
VI Results and Benefits of the PDF	25
VII Procurement Solutions	30
VIII Lessons Learned And Conclusions	33
IX The Way Forward	36
Appendix A: Forms of Public-Private Collaboration	38
Appendix B: PPPUE PDF Project Profiles	40

I Introduction

In developing countries today, the public sector provides most water, waste, sanitation, and energy services. Experience demonstrates, however, that municipalities alone cannot meet the continually growing demand for services. While traditional development assistance plays a vital role in enabling some governments to meet these challenges, it provides only a fraction of the needed investment. New partnerships for sustainable growth – sources of financing, technology, capacity building and management – are urgently needed. True partnerships between public and private sector organisations are one of the most promising emerging forms of co-operation. Through such joint ventures, cities and businesses pool their resources, expertise, and approaches to solving problems in order to tackle urban challenges in a sustainable manner.

Following the 1992 Earth Summit, the United Nations Development Programme (UNDP) initiated a global programme in collaboration with the Business Council for Sustainable Development (BCSD), and Sustainable Project Management (SPM), a not-for-profit Swiss organisation (an off-shoot of BCSD), to promote public-private partnerships (PPPs) to improve urban environmental services in the developing world. UNDP's Public-Private Partnerships for the Urban Environment programme (PPPUE) became operational in 1995.

This report focuses on the experiences of the initial Project Development Facility (PDF) phase of the PPPUE. The central objective of the PDF has been to promote private sector involvement in implementing sustainable solutions to urban environmental problems through the establishment of joint venture businesses with the public sector. It is important to note that the PPPUE Programme is concerned with partnerships, not privatisation. A related objective of the Programme has been to share and advance knowledge gained from project experiences, and to identify the elements of success so that they can be replicated and future obstacles overcome.

Between 1995 and 1999, the PPPUE Programme introduced its joint venture PPP methodology to 20 national governments as well as numerous regional and municipal authorities within these countries. Through these relationships, the PPPUE Programme brought project identification,

structuring, and development experiences to over 100 public-sector executives, building a foundation of PPP experience in diverse operating environments. PPPUE has also built awareness within numerous national and international corporations involved in water, waste, sanitation, and energy services, some of which have become actively involved in PPP ventures. In short, the PDF has set a new precedent for the joint venture PPP process in developing countries throughout the world that are in desperate need of new approaches to their urban problems.

The following report contains eight chapters that describe the context, process, and results of the PDF experiences. The first chapter presents the backdrop of the infrastructure crisis facing developing country cities in recent decades and the challenge of providing critical basic services to the urban poor. It frames the challenge in the context of rapidly expanding urban populations, the impact of the trend to decentralise the role of governments and the changing nature of international capital flows. Over the past decade, as the volume of private capital eclipsed the amount of official development assistance (ODA) flowing into developing countries, it has become clear that traditional funding approaches for infrastructure development need to be re-thought. Today, there is wider recognition that the need to provide urban services can only be addressed by expanding the sources of capital and managerial inputs - an expansion that will require new financial mechanisms and management structures.

Chapter II introduces public-private partnerships as a promising new approach and sets the stage for evaluating the joint-venture PPP model in particular. Joint ventures are a particularly interesting arrangement from a spectrum of alternative PPP arrangements that are available to municipalities, because they are based on the idea of sharing risks and rewards equally between public and private sector partners. Chapter III then describes the actual process that was employed by PPPUE during the PDF phase in order to introduce the joint-venture concept to municipal governments of developing countries from the identification of a business opportunity to the actual formation of the mixed-capital partnership.

In Chapter IV, the report describes the relevant actors whose roles assured transparency, commitment and balance between public and private sector responsibilities and who were able

to push the projects through each of the individual steps of the process. The key players were developing country governments, local and international private sector, and NGOs and the local community. The UNDP Offices together with the Project Development Advisor and in collaboration with the donor community, initiated and facilitated the project development process, which, in the best case, was taken over soon by project "champions" from the public and/or private sectors.

Chapter V reports the results and benefits of the PDF experience, which included the initiation of nine projects in eight countries and preliminary efforts in a number of others at a total cost of about \$2 million over four years. The nine projects initiated by the PDF have reached different stages of development. At least six will lead to the establishment of joint venture companies. The overall benefit of these interventions, in addition to tangible steps towards the goal of alleviating a serious urban environmental problem, was progress in the establishment of a more favourable political and cultural environment for future partnerships. This is especially true for the public sector partners, which benefited from the experience of participating in the process and establishing constructive working relationships with private sector partners.

The report includes a special section that examines the issue of procurement for private sector services and inputs. The reason for the emphasis on this element of PPP development relates to the constraints associated with traditional international competitive bidding (ICB), which works better under conditions of greater certainty than most PPPs offer. In fact, PPPs tend to be more fluid and dynamic than traditional public sector project development and therefore will require flexible procurement procedures to reduce the financial risks for private sector involvement in start-up projects. This section goes on to propose alternatives and to suggest ways of minimising the risks of corruption.

The last two chapters distil the lessons learned from the PDF experience and elaborate on the next steps for UNDP's PPPUE. Some of the most important lessons highlighted during the PDF are:

- Demand for technical assistance in partnership development is high, but national and local governments need to build capacity;
- Project development takes time and requires local leadership and continuity;

- High-level political commitment is essential. National Governments need to create the right policy and legal environment to make PPP development at the local level possible;
- Local governments are at the frontline for PPP development in environmental services. They need to build the capacity to become equal partners with business;
- Every project needs a champion and an independent facilitator;
- National private sector is the driving force in small and medium sized investments;
- NGOs and communities are important partners in project development;
- Partnerships are sustainable only if they are mutually beneficial;
- Building mutual trust is vital;
- A new approach in development assistance needs time to be accepted;
- A focus on joint ventures alone is too narrow. A new approach based on alternative PPP solutions for different situations from a wide

and open spectrum of options should be developed.

With these lessons of the PDF phase and the positive reaction from municipal governments to the PPP concept, the PPPUE programme launched a new implementation phase in late 1999. This new phase will focus on identifying PPP opportunities in the water, waste and energy sectors of cities in a number of developing countries and will also be prepared to respond to specific requests for technical assistance as they arise around the world. In addition, PPPUE will continue to gather information and experiences about PPP projects in order to establish a baseline of knowledge for the benefit of municipal leaders and private sector actors who are looking for innovative ways to resolve the dilemma of urban environmental services and who are willing to work together to help address the needs of the urban poor.

II The Urban Challenge

Rapid population growth throughout the developing world has created desperate conditions in urban centres, as citizens, particularly the poor, lack access to basic water, sanitation, waste and energy services. This section looks at these conditions and discusses why municipal governments, which are increasingly charged with implementing solutions, have been unable to do so using more traditional approaches such as financial assistance from development organisations or directly embarked on full-fledge privatisation.

The Urbanising World

The end of the 20th century witnessed unprecedented change in the pattern of human settlements. For the first time in history, more people are living in cities and towns than in rural areas. During the past three decades, the urban population of developing countries has tripled and, by the year 2000, some 2.2 billion people live in the urban centres of Asia, Africa, and Latin America alone, approximately one-half in cities of one million or more inhabitants. This urbanisation has been accompanied by an alarming growth in the incidence of poverty. Today, one out of four urban dwellers lives in "absolute poverty," while another one in four is classified as "relatively poor."

More than simply a demographic phenomenon, the rapid concentration of hundreds of millions of people in urban areas throughout the developing world is one of the most significant processes affecting developing countries and shaping their future. The result is a radical transformation in the structure of cities, accompanied by complex social, economic, and environmental changes.

Urbanisation has placed an extraordinary strain on governments, both national and local, to meet their citizens' basic needs. Urban environmental problems, such as insufficient water supply and sanitation facilities, inadequate waste management, and unsustainable energy systems, are particularly acute, and growing worse, as available services and resources are overwhelmed by expanding populations. The World Health Organisation estimates that 25 to 30 percent of urban residents in Latin America, Africa, and the Middle East lack access to potable

water, and that more than one third in Asia are not serviced. In addition, municipal authorities typically collect less than half of the waste generated each day in large cities, and in many cities disposal service is not provided to slums and squatter settlements.

Governments simply lack the resources to provide adequate services. They are finding that their limited financial resources are not sufficient to cover the needed expansion of these services and ODA has not been able to fill the gap. Even where governments do find the resources to subsidise public utilities, inadequate management and technical skills often result in poor service, with poorer sectors of the population remaining largely under-served.

A New Role For Municipalities

The global trend toward political and economic decentralisation has placed municipalities on the front lines of this public service crisis. Some municipalities, by virtue of their size or political importance, are well positioned to address the major challenges of water, waste, and energy service delivery. Most, however, are not prepared to solve their growing problems. The following conditions help to explain why:

- The current and projected revenue base of most municipalities is inadequate to finance capital improvements and associated operating costs;
- Decentralised authority has not come with decentralisation of national budgets, so municipalities end up with broader governance mandates, but fewer financial resources to allocate to them;
- Most water and waste services are provided at no cost to users, or at prices substantially below cost. The user fee concept, endorsed at the United Nations Conference on Environment and Development (UNCED) in 1992, has not been given political support locally or internationally. Even where fees are

charged, collection has typically been problematic;

- Many municipalities have large debt obligations, leaving little room for major new loans.
- Municipal managers are limited in number and tend to be inexperienced and unprepared for their new public service responsibilities;
- Municipal managers often have little access to information on new technology options that could provide better and more cost-effective services;
- Municipal managers frequently have little understanding of the potential of the national or international private sector as a partner in resolving these problems. Where interest does exist, limited economic resources often prevent them from undertaking the necessary preparatory or marketing work to attract private sector interest and commitment.

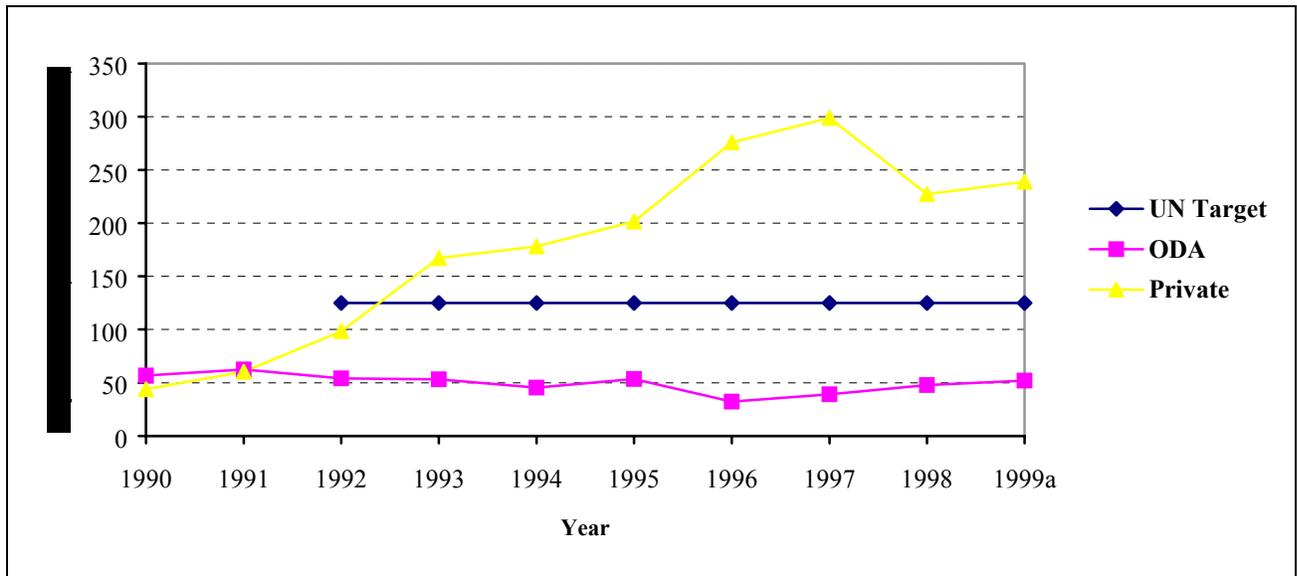
How Traditional Funding Options Are Falling Short

Official Development Assistance

Financial and technical assistance from bilateral and multilateral institutions has increased the capacity of many governments to meet some of the challenges posed by rapid urbanisation. ODA is limited, however, and can only provide a fraction of what is needed (Figure 1). Foreign direct investment of private capital now far exceeds ODA investments and promises to be the most significant economic driving force for many developing countries in the future.

As small and medium-sized cities grow and become increasingly complex socio-economic centres, they present a special challenge for ODA, which tries to achieve broad impacts with limited resources. Furthermore, ODA does not provide a long-term framework for the ongoing delivery, management, and operation of services.

Figure 1: Private Capital Flows to Developing Countries and Official Development Assistance, 1990 to 1998



Source: Private Capital Flows and the Environment, B. Gentry, ed., Edward Elgar Publishing (1998); UN, Agenda 21 (1992); World Bank, Global Development Finance (1999).

Privatisation

Throughout the 1990s, many developing countries and economies in transition shifted away from public sector dominance in a variety of economic sectors, including the provision of water, waste, and energy services. This shift usually takes the form of wholesale privatisation, whereby the government cedes total ownership and control of the service and its underlying assets to a private organisation, either through outright sale or through long-term concession. Under such circumstances, the government typically maintains responsibility for the public welfare through regulatory commissions or other statutory powers of surveillance and sanction.

Privatisation has a number of limitations with regard to the environmental services that are so desperately needed in developing countries. While it may be a viable option for some large-scale projects, most of the critical urban environmental

problems involve smaller projects (that is, investments of less than \$25 million) that are unable to attract this type of private sector investment. Smaller projects typically have the same degree of political and commercial risk as larger projects; however, the risks and project development costs tend to outweigh the potential financial gains (in this regard, the absence of user fee charges has been one of the most serious obstacles to private sector investments in urban water, waste, and energy services). Another problem with full-scale privatisation is that governments do not remain directly involved in providing basic public services. Their involvement guarantees a degree of public accountability, preserves the public service ethos, ensures the protection of all sectors of society, and underwrites the delivery of social and environmental, as well as economic benefits. That is, it meets sustainable development as well as purely financial goals.

III The Joint Venture PPP Approach

The 1992 Earth Summit in Rio de Janeiro sent a clear message that the issues facing urban centres in the developing world were too important and too great in scope for governments to address them acting alone – new partnerships would have to be forged with the private sector. Agenda 21 talked aggressively about “public-private partnerships”, stating that the public and private sectors “should strengthen partnerships to implement the principles and criteria for sustainable development,” and the public sector “should establish procedures” to allow for an “expanded role” for the private sector.

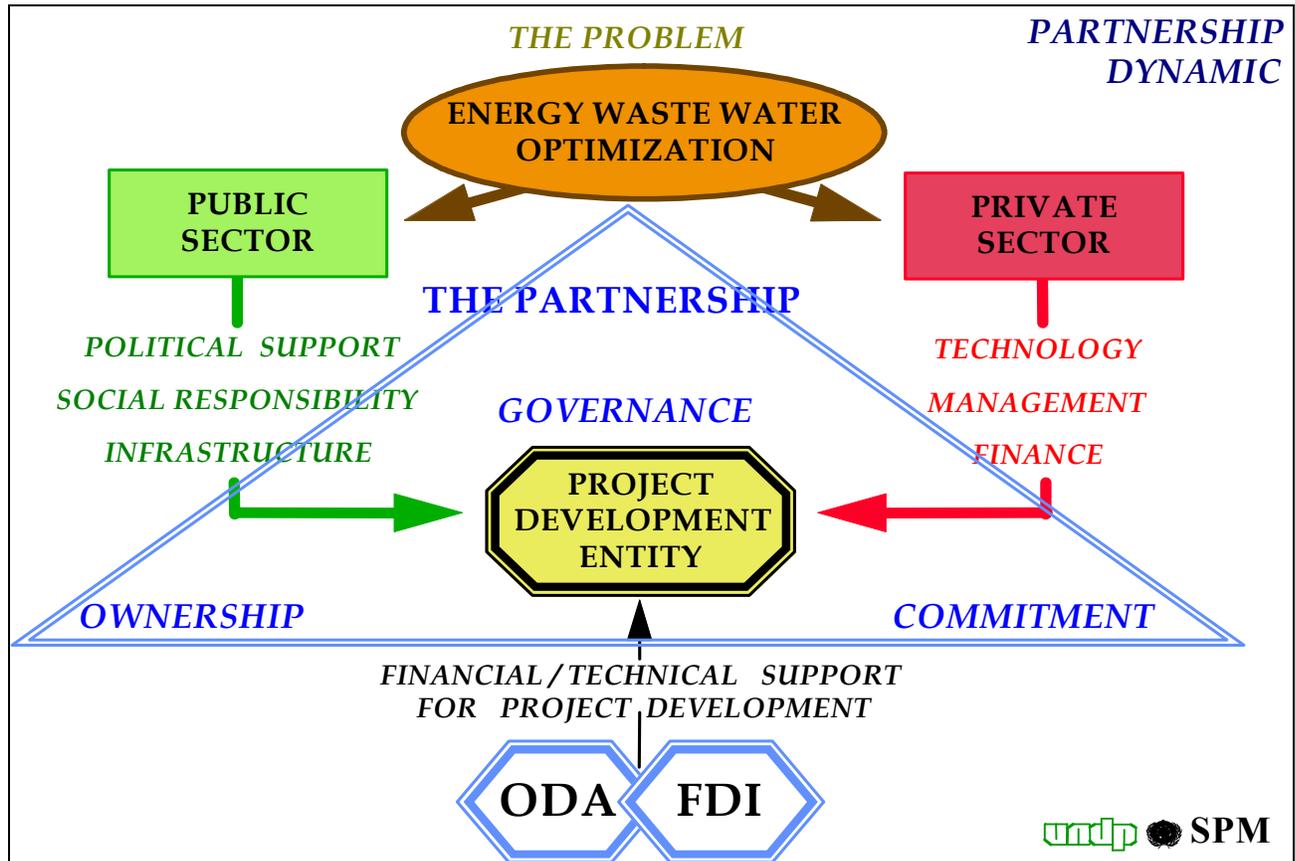
The urgent insistence that the private sector have an expanded role in moving Agenda 21 forward unlocked the door to a completely different approach. Following the summit, UNDP and SPM began to develop a new model to engage the private sector in designing and implementing solutions to urban environmental issues – the joint venture PPP.

Joint Venture Public-Private Partnerships

Structure

At their best, joint ventures are an efficient way to capitalise on the unique strengths of the public and private sectors – providing a vehicle for the private sector to help deliver public services at lower cost without adversely affecting quality or accessibility. Under the joint venture model, the public and private sector partners accept the idea of shared risk and shared reward; each must be willing to make quantifiable contributions during the project development and implementation process. Figure 2 provides a conceptual image of the joint venture PPP model.

Figure 2: The Joint Venture PPP



Public and private sector goals do not have to be identical for a joint venture PPP to succeed, they must merely be compatible and lead to a common or shared outcome. For example, one partner may be interested in financial return, the other in improving customer service, yet both share the common goal of creating a viable and sustainable organisation.

Under joint ventures, the government is both the ultimate regulator, as well as an active shareholder in the operating company, allowing it to maintain a controlling interest in the venture for the sake of safeguarding public needs and interests. From this position, it may share in the operating company's profits and help ensure the wider political acceptability of its efforts. The private sector partner often has the primary responsibility for performing daily management operations. However, the public sector typically continues to play a role at the corporate governance and day-to-day management levels, which helps public employees gain the managerial

and technical skills that are necessary to run a profitable public service.¹

A Continued Role for the Public Sector

Under the joint venture PPP scenario, private sector involvement alters, but by no means eliminates public sector responsibilities. The private business sector is driven by profit, and if left unregulated, this pursuit of financial gain can lead to under-investment in the human and social capital that is necessary to meet basic infrastructure needs. Governments must maintain responsibility for ensuring that adequate and

¹ In the case of environmental services, it can be to the public sector's advantage to partially divest in order to benefit from the infusion of private capital and improved operating efficiency while maintaining a role as shareholder in the new venture. In this capacity, the government maintains an insider's view of the operation and voting rights, which can be a more effective control measure than regulatory oversight alone. Following completion of the terms of agreement, the government can choose to fully divest if it is satisfied with the performance of the private partner and the direction of the joint venture business.

affordable infrastructure services are provided to all citizens. Whether they exercise this responsibility as a provider, partner, or regulator will depend on the government's needs, constraints, and capacity.

Continued government involvement in certain services helps ensure the efficiency of economic markets by reducing capital risks, increasing access to information, and reducing monopoly power. In addition, government involvement can serve to increase public accountability, ensure equal distribution of goods and services, and maintain partial control in publicly important industries.

Benefits of the Joint Venture Approach

The joint venture approach offers numerous benefits to the public and private sector partners. It has built awareness among local political authorities and public-sector partners of the advantages of the free market approach and decentralised decision-making. It has also demonstrated the importance of least-cost solutions to reduce total investment, generating profits to ensure long-term project survival, and motivating employees to work for the good of the company. For the private sector, participation in a joint venture in effect makes them a long-term partner in efforts to attend to the needs of a country's population, while earning an adequate rate of return and gaining access to new markets.

Most importantly, joint venture PPPs bring business solutions, not aid or debt, to urgent urban problems. They combine the advantages of the private sector – dynamism, access to finance, knowledge of technologies, managerial efficiency, and entrepreneurial spirit – with the social responsibility, environmental awareness, local knowledge, and job generation concerns of the public sector. Experiences to date show that joint venture PPPs work, bringing a badly needed infusion of technology, finance, and management to tackle desperately serious urban problems (Faulkner, 1997).

The Spectrum of Public-Private Partnerships

Joint venture PPPs are just one of a vast array of possible options for public-private collaboration. The term “public-private partnership” describes a spectrum of possible relationships between public and private actors for the co-operative provision of infrastructure services (Figure 3). The only essential ingredient is some degree of private participation in the delivery of traditionally public-domain services. There are virtually infinite numbers of individual points on the spectrum, with new models for co-operation being developed all the time. The broadest definition of a PPP is any form of voluntary co-operation between public and private actors – the joint venture PPP discussed in this report is in the centre of the spectrum.

IV The PPPUE PDF Process

Project Criteria

The underlying objectives of the PDF were to introduce the joint venture model to the governments of developing nations, and to promote actual partnerships between the public and private sectors in these countries to address urgent problems in the water, waste, sanitation, and energy services sectors.

PPPUE concentrated on projects that by virtue of their size and socio-economic impact were not attracting mainstream technical and financial support or the financial and international contracting community's attention (that is, projects of less than \$25 million). PPPUE also sought out projects that, by building on their latent revenue streams (polluter pays and user fees, for example), would transform an environmental problem into a successful business, profitable enough to attract private-sector investments. PPPUE anticipated that these projects would provide a testing ground on which to develop an alternative but verifiable methodology for project development that would bring demonstrable benefits in terms of lower transaction costs, shared roles, and replicability. PPPUE strove to promote projects that improved social conditions through job creation and overall improvement of city services and living conditions. Projects needed to respect local cultural values and established traditions, use eco-efficient technologies, and involve NGOs, community groups, and other local stakeholders whenever possible.

PPPUE wanted to tackle priority problems for local authorities and central governments, and specifically sought out projects that addressed problems shared by other cities in the region or sub-region. PPPUE gave preference to projects in stable political environments, with a reasonable time frame for project implementation and acceptable electoral deadlines.

Underlying Themes of the PPPUE PDF Process

The premise of the joint venture approach is that shared risk equals shared reward. The process therefore advocates joint ownership and governance throughout the project development and implementation processes. It supports the

application of tendering and joint venturing methods that, while ensuring total flexibility, transparency and cost-efficiency, provide the private sector with the confidence that its "up-front" investment in the project's development will be rewarded with an equitable participation in the final business. The process acknowledges that time is of the essence, while recognising that projects in the developing world take time. The principal building blocks of the process are tried and tested, drawn from decades of project financing and structuring experiences around the world.

From the start, PPPUE understood that the vast majority of developing countries would consider the joint venture approach to be a significant departure from their accepted practices. The underlying "shared risk = shared reward" philosophy implied a change in attitude from traditional reliance on ODA and more straightforward contractual relationships with the private sector. Operating in the groundbreaking area of environmental services only added to the challenge, as private-sector enthusiasm for such PPPs depends upon the stringency of local legislation, the urgency of the problem, and the perceived direct economic benefits.

Steps in the PPPUE PDF Process

The joint venture PPP process is based on five main steps: (1) project identification and the "reality check"; (2) partner identification; (3) working group formation and signing of a memorandum of understanding (MOU); (4) project design and development; (5) formation of the joint venture business; and (6) assessment for replicability. The following discussion outlines the specific efforts that are often involved in each step.

Step One: Project Identification and the "Reality Check"

Initially, PPPUE consultants conducted an exploratory project identification mission in a host country. The mission was generally organised and supported by the local UNDP country office. During the mission, the PPPUE team met with interested parties from the public and private sectors to gauge the applicability of the joint venture PPP approach and the level of interest. Following the mission, the team conducted a preliminary "reality check" to confirm the project's viability and the government's interest in pursuing it.

Step Two: Partner Identification

Step Two encompasses the establishment of interest among public and private sector organisations to work toward the environmental problem's resolution. The partner identification process typically entailed the following sequence of events:

1. The host government issued a preliminary project endorsement in the form of a formal request to UNDP that they provide technical assistance to the selected project by offering the services of an independent project development advisor (PDA).
2. The PDA identified and secured the support of local public-sector partners (typically the project sponsors), and facilitated their signing of a Letter of Intent (LOI). Where appropriate, the PDA identified and engaged the support of local private-sector partners through explanatory meetings organised by UNDP or the host government.
3. The project sponsor(s), with help from the PDA, UNDP Country Offices, and other sources, identified and recruited local support consultants.
4. The PDA scoped out the project in agreement with the project sponsor(s), possibly developing a preliminary economic model of the proposed business.
5. The sponsor(s) took a negotiated contract approach to selecting a private-sector partner.

Partner Identification in Tunisia

A PPPUE team visited Tunis in 1997 in co-ordination with the local UNDP office. The PPPUE team met with many potential stakeholders including the Ministry of Environment, Aménagement du Territoire, the National Waste Management Programme (PRONAGDEC), and the Loi Cadre on Waste. The UNDP Country Office made all the arrangements and provided a local representative to accompany the PPPUE Team during its initial exploratory mission. The Tunisian government agreed to public sector involvement in the project, while the Ministry of Environment insisted that the project address the operational and management issues on a sustainable basis. After reviewing three of the Ministry's candidate projects, PPPUE selected the Recycling and Collection of Packaging Waste project. The scope of the project is to form a joint venture business to address the collection, sorting and recycling of packaging waste in Tunis, including paper, cardboard, glass, and aluminium, and to sell the recycled waste to re-users and energy generators such as the cement industry.

The strong position of the central Tunisian government with regard to the private sector made the central Ministry of Environment, acting through the National Agency for the Protection of the Environment (ANPE), an obvious initial public sector partner. Preliminary meetings, organised by ANPE, welcomed companies from the waste generating sectors (supermarkets, bottling companies, and soft drink manufacturers) as well as from the recycling sectors (plastic waste and pulp and paper recyclers). The meetings gave the private sector firms an opportunity to air their concerns and express their interests to the public sector officials, which facilitated a mutual understanding of each sides' priorities. ANPE gave the project priority, contemplated a series of economic and other mechanisms to ensure project profitability, and participated in the project design process, all of which provided additional incentive to the private sector to move forward.

Step Three: Working Group Formation and Signing of a Memorandum of Understanding (MOU)

When a government decides to use a joint venture PPP approach, the partners must construct an agreement that defines the roles and the responsibilities of each partner as they move forward. This is typically accomplished through the development of a MOU, which in essence creates a joint working group. The process rests on the premise that only in this manner can the key principles of the process be assured: *ownership* of the project by both sectors; demonstrable economic (and political) *commitment* to the project by all parties; and operational/administrative management (*governance*) of the project. The joint working group provides the necessary forum for constructive, collaborative, and confidence-building dialogue and interaction among the public and private sector partners. It ensures joint entrepreneurial problem solving in the context of a transparent and pragmatic project design and contracting process.

The MOU was signed by all project partners and other interested parties, including, the PDA, PPPUE, and any other body (public, private, bilateral or multilateral) interested in contributing

directly (in cash or in kind) to the successful workings of the new public-private entity. Typically, it covered the scope of the project; the formation, governance and administrative structure and membership of the working group; the roles and responsibilities of all parties including the PDA and UNDP; the contributions (cash or in-kind) of future joint venture partners; the project development process; measures to ensure transparency in contracting, sub-contracting and pricing issues; and a time-line for preparing the "bankable document."

The establishment of a joint working group introduced certain invaluable innovations to the project development process that reflected a private-sector, entrepreneurial approach to project design, financing, and execution. These include:

- Minimisation of project development costs (taking a project from identification to execution optimally should not exceed four to six percent of the final investment; if the costs of a feasibility study can be minimised and shared between the parties, the resulting value of the work will be higher; the private sector does its own analyses and does not typically hire outsiders to do the studies for their investments);

- Greater confidence that comes from one's own work;
- The ability to maintain negotiation margins throughout the design process, with both sides well placed to make the final concessions on tariffs or price that will secure profitability;
- Efficiency, in that the time and pace of work are of the essence if the project is to maintain private-sector interest. If the bulk of the economic burden of developing a project falls on the private sector, it is reasonable to move at that sector's pace; and
- Optimisation of the ultimate financing package for the project. The technical, economic and financial parameters of the project, as it is designed jointly by the public and private sectors, determine the nature of the project's funding.

Inevitably, the working group process varied from project to project, reflecting, among other things, the pressure and perception of the environmental problem, the nature of the dialogue between the public and private sectors, and the regulatory environment in which the project has developed. A joint venture PPP is not merely a semblance of dialogue and consultation between the public and private sectors, but a concrete exercise in joint problem solving and burden sharing, leading to the establishment of a jointly owned, economically sustainable enterprise.

Step Four: Project Design and Development

Once the MOU was signed, the joint working group undertook the project development work with support, as necessary, from the PDA, its local consultants, UNDP Country Offices, and additional bilateral or multilateral agencies (as appropriate). Project development typically included a pre-feasibility analysis of the market (upstream and downstream); an analysis of the regulatory environment; a technical analysis and evaluation of technical options (national and international); and an economic and financial analysis. The feasibility studies were generally funded by the private sector partner(s). Once these analyses were complete, the joint working group prepared an investment proposal and "bankable document."

Throughout the process, with the direct support of the PDA, the joint working group was fully responsible for its own work programme, its speed of implementation and the maximum number of tasks it was capable of performing, thereby minimising the project's reliance on external support. Traditional investment planning in emerging markets has tended to rely heavily on the work of external consultants, often financed by third parties. This has meant less responsibility for the local partners and project design by persons who will never be called upon to invest in it or to "make it work." Experience has shown that technical studies in which the ultimate participants have been directly involved from the outset are usually more focused, more cost-effective and ultimately more valuable from an investment viewpoint, being tailor-made not only to the project but also to its ultimate shareholders.

Project Design and Development in Willowvale, Zimbabwe

The Government of Zimbabwe is eager to find solutions that will ease the increasing strain on the country's energy and water resources resulting from the growth of Zimbabwe's industrial base and heavily industrialised areas. PPPUE undertook several exploratory missions in 1994 and 1995, during which the team met with central government and municipal officials to present the PPP approach and gather advice on potential projects. Consultation with the Public Works Department of the City of Harare, the Ministry of Transport, the Energy Power Utility ZESA, and select private sector businesses suggested a common interest in a pilot project to optimise the use of energy, water and waste in an established industrial area in Willowvale (located 5 miles Southwest of Harare). The public and private sector partners planned to form a joint venture business to buy bulk electricity and manage its distribution within Willowvale Industrial Park. The project was intended to include demand side management and the provision of technical advice and services to customers in the Park.

The public and private sector partners came together easily for this project. Public sector partners included the providers of power, water and waste disposal services; private sector partners included the industrial users of these services in Willowvale. PPPUE undertook a pre-feasibility study of the project in 1995 that included workshops involving the utilities, participating industries and a local non-governmental organisation. The study indicated that a viable business could be created to respond to the energy, water, and waste issues of the industrial area and was sufficiently positive for the public and private sector groups to come together to move the project forward. The partners signed an MOU shortly thereafter, which triggered the German Investment and Development Company (DEG) to express interest in the project and to finance a full feasibility study for the Willowvale Industrial Park energy-service company. The MOU provided for an Executive Committee (EC), comprised of the public and private sector partners, to manage the project. PPPUE assumed an advisory role within the EC, which met regularly and made all major decisions regarding the project. A Technical and Economic Working Group, under the leadership of the local NGO Southern Centre for Energy and Environment, contributed to the development of a Business Plan against which the partners could make their investment decisions.

Step Five: Formation of the Joint Venture Business

Once they had developed the bankable documents, the project partners entered into final negotiation with the project's investors and lenders. If appropriate, the PDA supported the negotiations with potential national and

international finance institutions. With financing secured, the partners implement the project.

Step Six: Assessment for Replicability

When the project is underway, PPPUE, the PDA, and the national and regional government assessed the project and the specific project development experiences for replicability.

Opportunities for Replicability in Caldas, Colombia

The coffee sector plays a significant role in Colombia's national economy, and the Department of Caldas, in particular, represents 50 percent of the nation's coffee producing capacity. The coffee-bean washing process generates a significant amount of contaminated water, which a large number of independent coffee growers usually discharge into streams and rivers. The application of new coffee washing technology would lead to a major reduction in water consumption and pollution.

PPPUE and Fundacolon, a non-governmental organisation in Bogota, first identified a potential coffee PPP project in mid-1994. The project established a joint venture business, Agua Pura S.A. (APSA), bringing together five regional public sector groups and two regional private sector groups to address water quality issues in the coffee-producing region of Central Colombia. The partners identified the comprehensive urban waste management of 21 outlying towns as a way to reduce pollution in the area's rivers and streams, and the project became operational in 1996.

The design and implementation of a joint venture business to manage coffee waste in the multi-municipal area of the Department of Caldas should provide the optimum solution to the resulting environmental problems that have confronted the local government and the citizens for many years. The project serves as a sound model for exploring similar PPP solutions throughout the region and the world.

V Project Actors

Joint venture projects require access to skills that can bring solutions to the PPP process. The PDF found this skill base in experts inside the UNDP system, particularly in the country offices, and in the project teams that were deployed by PPPUE and reinforced by local consultants. Some projects required additional financial and technical resources, which were provided by ODA and academic institutions. Together, these “project actors” brought unparalleled project experience and extensive networks of contacts to the projects. Following is an overview of these different actors and the roles they played in the PDF at the programmes and project levels.

Developing Country Governments

PPPUE encouraged national governments to identify PPP opportunities that addressed priority problems and could justify government funding of a portion of the start-up costs. National governments were also essential in removing legal bottlenecks. In some cases, national governments had to change legislation to allow local governments to engage with the private sector. At the local level, the municipality was often engaged in PPP negotiations and typically served as an active partner in the PPP process. Local governments were also typically responsible for ensuring that other sectors of civil society were fully involved in the PPP process. Their ongoing role includes facilitating the entry of appropriate technologies and investments, and demonstrating a continued commitment to the PPP process.

Private Sector

Local private sector involvement was a requirement for every project; international private sector involvement was encouraged to provide financial investment, management skills, and technologies. PPPUE promoted the use of a transparent process based on clearly defined criteria to identify all private sector partners. In order to be eligible for selection, the private partner had to: (1) be willing to contribute to the cost of the project’s pre-feasibility and feasibility studies; (2) be prepared to invest in the new company when it was formed; (3) have experience operating the eco-efficient technologies to be used by the new company; (4) have experience operating in the country where the new company

was established; (5) have the support of its own government's development agency; and (6) strongly support and advocate eco-efficiency, local participation, and respect for local cultural values.

UNDP

UNDP played a co-ordinating role in the PPPUE Programme at headquarters through the Sustainable Energy and Environment Division of the Bureau for Policy Development, and at the project level through its network of Country Offices and through the funding of PDAs, who played a critical role in facilitating the PPP process.

UNDP Headquarters received funding requests and assisted in the selection of projects that met the established project criteria. Headquarters helped to ensure that PPPUE pursued project activities that responded to the needs of developing countries, complemented UNDP country programmes, had economic and political value, and served as vectors of innovative bridge building to the public sector. Early in the process, the UNDP country offices helped disseminate information on the PPPUE to developing countries to ensure that opportunities for participation were

transparent and available to all interested parties. In addition, the country offices provided input into the project development process to help balance economic, social, and environmental concerns. UNDP country offices often helped ensure that gaps not filled by the public and private sector partners received appropriate support. This included contributions to the cost of essential studies (e.g., legal, market, and pre-feasibility), and the deployment of complementary capacity-building programmes.

In addition, UNDP country offices encouraged and facilitated the involvement of governments and the local private sector in individual projects by helping to ensure that projects were understandable and inviting to these potential partners. In most circumstances, the presence of local UNDP officials, working alongside and through the PDA, served as an important guarantee of transparency and credibility. UNDP country offices ensured that, whenever possible, projects were co-ordinated with other urban and environment activities within the United Nations. They also played a critical role in transmitting successes and quantifiable benefits to potentially interested donor and other agencies.

Role of the UNDP Country Office in Costa Rica

The establishment of a joint venture energy services company in Costa Rica, ESCO, required the close involvement of UNDP's local office. Constant interaction with the office of the Resident Representative from the outset emphasised the compatibility of the PPPUE approach with the country programme. The country office played an important role in helping to select the project and the local consultants, and throughout the project development process, PPPUE and the UNDP country office co-ordinated closely all major developments and steps taken by the PDA and local consultants.

Early on, the UNDP country office expressed a willingness to finance support activities, and ultimately contributed 50 per cent of the cost of a preliminary legal opinion on the modalities of the PPP corporate and bidding structure in Costa Rica.

The PPPUE ESCO project is perceived at the highest government level as a timely and valuable example of how to move towards private-sector engagement in infrastructure and environmental activities. The public-sector partner, CNFL, expects that ESCO will not only play a significant role in the Costa Rican market, but will provide a commercial and technical springboard to expand into the rest of the Central American and Caribbean market.

Project Development Advisor (PDA)

UNDP played a critical role in funding an international PDA for each PPP project. The consistent hands-on support of a PDA at every stage of the process was central to the success of the PPPUE methodology. The PDA acted as a

project catalyst, moderator, and intermediary between the public and private sector partners, helping each to understand the other better, thereby facilitating a cost-effective, equitable and transparent decision-making process. The PDA typically brought vital negotiation and project development experience in areas such as

technology options, finance, eco-efficient technologies, public-sector project advisory work, private-sector corporate finance, user fee structures, asset valuation techniques, and institutional structuring. The international PDA was asked to maximise the transfer of PPPUE project "technology" to the host country by recruiting and managing local consultants, thereby facilitating future replication. PDAs also identified the capabilities of new partners and found ways to fill any gaps in the project development process.

In essence, the PDA built bridges between the public and private sector organisations, and often broke the "logjams" traditionally associated with public-private project development. For all parties, the PDA, along with UNDP and NGOs, also helped to ensure transparency. The independence and total impartiality of the PDA was assured through local politics, local pressure groups, and local and international business and contracting organisations. The partners in the vast majority of PPP projects considered the PDA an essential component of the project.

The international PDA was supported by local consultants or advisors, who were selected for their experience in comparable project situations and usually known to UNDP. These consultants

ensured the progress monitoring function (which can, in economic terms, only be assured by someone on site), reinforced the PDA with critical local knowledge and contacts, built "cultural" bridges between the PDA and the project participants, and consolidated the technology transfer and local capacity-building goals of the PPPUE Programme.

Donor Countries

In addition to contributing financial resources to the PPPUE Trust Fund, donor countries provided expertise and technological innovations to a number of PPP projects. Donor countries have involved their own private sector and academic resources and bilateral agencies in projects. They have also encouraged private sector involvement in project design, development, and investment, and contributed funds to supplementary components of the project development process, such as feasibility studies. Donor countries benefited from their involvement in that the PDF process provided their private companies with access, on a competitive basis, to pre-vetted and identified projects, to which a high level of host government commitment has been previously secured.

Donor Country Involvement in Batangas, Philippines

UNDP Philippines suggested that PPPUE help implementing a PPP initiative in Batangas, Philippines. The proposed project would bring together public and private sector partners to form a joint venture company that would develop a collection, transfer, recycling, treatment and disposal facility for municipal solid wastes, as well as for medical and hazardous wastes in the Province of Batangas.

As the process got underway the project was presented to the New Zealand ODA (NZODA) and stimulated sufficient interest to support its development. PPPUE helped the regional programme office organise an "investors roundtable" to present the PPP project to potential private sector investors and contractors.

At first, larger multinational firms were sceptical of the PPP process and whether or not the public sector was sufficiently committed. Furthermore, most of the firms considered investment in the Philippines too risky. Several firms (specifically those from New Zealand), however, felt more confident knowing that the national aid agency was directly involved. The national and multilateral involvement combined with the PPPUE team's knowledge base proved sufficient to manage the concerns over political uncertainties.

Based on competitive presentations, the project's working group unanimously elected to award the project to the New Zealand Management Limited (NZWML) consortium. The working group ensured that the entire selection process remained transparent.

Project “Champion”

Although not an official project actor, the project “champion” – whether from the public or private sector – has been of critical importance to a project’s success. The ability of a public-sector champion to generate the initial momentum to make the necessary “leap of faith,” when the benefits of the process were difficult to demonstrate, was often critical to the initiation of a PPP process. In Colombia, for example, the former Governor of the Department of Caldas served as the key driving force behind the PPP process leading the incorporation of a joint venture company. The incorporation and adequate capitalisation of the company were in large part

the fruit of her dynamic vision of the most cost-effective mechanism to deliver a project.

NGOs and the Local Community

In many cases, NGOs provided valuable local knowledge, insights, and contact networks that improved project quality and increased the level of local participation. The Southern Centre for Energy and Environment in Zimbabwe, for example, even took over the leadership in the business plan development. In general, NGO participation lent greater transparency to the PPP process and helped ensure that local needs and priorities were met in a cost-effective manner.

VI Results and Benefits of the PDF

Project Costs

The joint venture PPP process is often complex, labour-intensive, and time-consuming, and sophisticated skills are needed to ensure success. Yet, as the following results demonstrate, in terms of tangible progress toward the creation of viable environmental businesses and the mobilisation of public and private sector investments in time and cash, the PPPUE PDF approach offered good value for money.

The PPPUE PDF was funded at approximately \$2 million between 1995 and 1999. It benefited from major contributions from the Swiss and New Zealand governments, as well as inputs from Germany, the United Kingdom, and the Netherlands. Based on its experience in the initial phase (1995 to 1996), the PPPUE established a per-project technical assistance budget of \$250,000. In practice, expenditure on projects has varied. Experience shows that time, distance, and costs are closely related. Therefore, the longer the process, the greater were the costs of each project. Thus, the Willowvale Industrial Park project in Zimbabwe has cost some \$220,000 in the four years since it started, while the pursuit of two projects simultaneously in Costa Rica has cost \$205,000 in 18 months (\$90,000 for the energy project and \$115,000 for the solid waste project). The average expenditure on four suspended projects has been on the order of \$40,000.

Projects Results

The nine projects initiated by the PPPUE PDF have reached different stages of development. Three projects (Colombia, Costa Rica-ESCO, Zimbabwe) have resulted in PPP businesses or will do so in the near future; three others (Costa Rica-MSW, Namibia, Philippines) plan to establish a joint venture business, and were brought to advanced development stages where they were picked up by other programmes or donors to bring them to final fruition. The remaining three projects (Poland, Tunis, Turkey) ultimately overlapped with a parallel strategy of traditional tendering and procurement. Time or political (electoral) constraints forced authorities to resolve the problem with more familiar methods of project

implementation, building on the groundwork provided by the PPPUE. Even though no joint venture businesses were established in these cases, the success lies in solving an environmental problem, which had not found an adequate answer before PPPUE got involved.

In addition to these project efforts, PPPUE undertook preliminary project identification and awareness-building missions to eleven additional countries (Cuba, South Africa, Syria, Morocco, Kazakhstan, Jordan, Lebanon, Guatemala, Honduras, Mexico, and Peru), thereby bringing 20 countries to a point of potentially or actually committing to the joint venture PPP process. In total, the projects have provided business development experience to nearly 100 middle management executives in the public sector; in-depth project design and structuring experience to more than 10 local consultants; and on-going business development experience to participating UNDP country offices.

Following are some of the results the PPPUE programme achieved through its PDF (see Appendix B for more detailed discussions of individual projects):

- PPPUE helped establish a \$3.5-million multi-municipality domestic waste management project in the Department of Caldas, Colombia. Under the project, five public-sector and two private-sector entities formed an initial limited-liability company, Agua Pura S.A., to protect the coffee-growing region's declining water resources on a sustainable basis. With the technical support from PPPUE and the local UNDP office, Agua Pura S.A. designed a waste collection business, into which they were ultimately able to attract additional private-sector investors from Colombia to serve as the firm's operator and stakeholders. The Agua Pura S.A. project development process was initially funded by U.S.\$70,000 in working capital from the partners, complemented by U.S.\$80,000 in technical assistance support by the PPPUE PDF. Agua Pura S.A. has been operational since 1996;
- In Costa Rica, PPPUE helped form a joint-venture energy services company (ESCO) to respond to the demand for energy efficiency services. CNFL, the electric utility, approved the creation of ESCO and registered it as a subsidiary. ESCO will sell controlling interest to domestic and/or international partners, with CNFL maintaining a minority interest. The local CNFL labour force, acting through its trade union, may also be allocated shares in the new company. CNFL sees ESCO as a source of revenue and as a major contributor to the range of services it can provide to its client base, thereby cementing long-term client relationships in a period of technical transition and growing deregulation. CNFL expects that ESCO will not only play a significant role in the Costa Rican market, but will provide a springboard to expand into the rest of Central America and the Caribbean;
- In the central valley of Costa Rica, PPPUE helped form a joint venture company that will develop and implement an economically sustainable solid waste management response to improve waste collection, transport, disposal, and recycling processes. San Jose and its surrounding municipalities established an internal working group in January 1999 to manage the process and decided to finalise a pre-feasibility study to help municipalities decide whether to pursue PPP projects, make larger direct contributions, and engage the private sector in the first round of negotiations. The Municipalities of San Jose and the surrounding metropolitan area view the integrated waste management system as a means of providing better service to their citizens, charging a market rate for these services as a result, and transforming a former loss into cost recovery or profit scenario;
- In Namibia, PPPUE has helped public and private sector partners form a joint venture PPP to use industrial water and waste as input materials for a range of downstream agri- and aqua-businesses using zero-emissions technology at a water treatment site. For this project, the PPPUE team has enjoyed the full support and co-operation of the Namibian government at the highest levels. The government, institutional and private sector partners signed an MOU in November 1997 that committed them to establishing the joint working group to explore the creation of a joint venture Environmental Project Development Company (EPDC). A feasibility study, which includes a Business Plan, has been completed by March 1999. EPDC initially implements a small-scale version of the Bio System Project, to test the integration of the process in a productive environment and to provide an opportunity for skills training. Once in full operation, the EPDC project can be replicated by other municipalities and will

create opportunities for pursuing similar ventures in water and waste management throughout the region;

- In the Philippines, PPPUE helped form a joint venture business that will address the collection, transfer, recycling, treatment, and disposal of wastes in the Province of Batangas. The private sector partner completed the feasibility study by the end of 1999 after all parties signed the MOU in May 1999. The joint venture PPP model under development with the active participation of Batangas and associated municipal governments provides a workable model for other municipalities to engage the private sector in solving urban environmental problems, especially waste and water;
- In Poland, PPPUE initiated the formation of a joint-company addressing wastewater problems in the Municipality of Siewierz. Under the project, the Municipality of Siewierz sought private sector partners to develop a PPP project involving the construction of 105 km of a new sewer system, a white water collection system and two water treatment plants. While there was potential to create a company in form of a joint-venture PPP with the companies selected through international tender, the Municipality finally decided to pursue a more traditional build-operate-transfer (BOT) approach because of political reasons.
- In Tunisia, the project's objective was the formation of a mixed-capital company to bring economically sustainable solutions to packaging waste collection, transport, disposal and recycling. The project addressed the collection, sorting and recycling of packaging waste, including paper, cardboard, glass, and aluminium in Tunis, and the sale of the recycled waste to re-users and energy generators such as the cement industry. A number of potential international business partners became interested in forming a joint-venture company. The government, however, decided to opt for a World Bank loan and traditional tendering with the support from the World Bank. Even though the final decision did not include the joint-venture option, the PPPUE work helped to initiate a process that will provide a sustainable solution to an urgent environmental problem in Tunis.
- In Turkey, the planned waste management project built on existing public-private collaboration in packaging waste collection and recycling between the Municipality of

Bursa, the private sector CEVKO Packaging Producers Trust, and multinational packaging companies. The project partners examined the project's potential for operation on an economically viable basis, and possible expansion of the project's scope to include urban domestic waste, industrial waste, and toxic/hospital waste. In June 1998, the Working Group decided to focus on a prototype project that would entail a recycling company handling industrial waste from the Bursa Organised Industrial Park (BOIP). The project involved two key industrialists and it was designed to become a "test-bed" for joint public-private project design and implementation. This venture, however, encountered serious difficulties and delays related to obtaining the necessary government approval for the Municipality to become a shareholder in a joint-venture company. Election pressure and time constraints finally prompted the Municipality's decision to tender the project and to follow a BOT model instead of pursuing the joint venture approach.

- In Zimbabwe, PPPUE provided critical technical support in the design of a joint venture, demand-side management energy services company, in which the national utility and the private sector would be shareholders. The company would have rationalised and reduced electricity consumption on the Willowvale Industrial Park, just outside Harare in Zimbabwe. An exhaustive feasibility study and a business plan were developed. Both received positive feedback from all public and private partners who indicated strong interest in investing in the company. Unfortunately, just at this point in the project development process the economic and political crisis in Zimbabwe aggravated and caused the postponement of any investment decisions.

In addition to the nine main PPPUE projects, PPPUE has provided technical assistance to the following countries:

- In Bulgaria, PPPUE provided ongoing technical assistance to potential and existing local partnerships for the establishment of a joint venture PPP project in water treatment and supply in Bulgaria. The Municipality of Svishtov considers a PPP water project as a cost-effective way of upgrading its services to the point of cost recovery.
- In Cuba, PPPUE provided project development advice for energy efficiency and

- water treatment and supply projects, and in Vietnam for small and medium-sized industry capacity building.
- PPPUE identified and evaluated potential PPP projects in South Africa, Syria and Morocco, and has conducted project identification missions in Kazakhstan, Syria, Morocco, Jordan, Lebanon, Guatemala, Honduras, Mexico and Colombia.

Project Benefits

Virtually every PPPUE project was characterised by a crisis situation in which the public and private sectors had previously been unable to identify common interests and work towards a common solution, largely due to conflicting mind-sets and lack of a common language. Within this context, the PDF PPP process brought the following benefits:

To the public sector:

- A framework for reconciling the economic benefits traditionally associated with pure privatisation with the public sector's social and environmental responsibilities;
- A new form of dialogue with the private sector regarding social services;
- Assistance in selecting the most committed partners and support in the negotiation process;
- A transparent and defensible methodology for project development;
- An acceleration of technology advances and "leapfrogging" to meet urban environmental needs; and
- A new forum for dialogue with civil society in which the civil servant deals on equal terms with all interested parties.

To the private sector:

- An opportunity to develop an innovative, proactive dialogue with the public sector on matters of common environmental concern;
- A way through institutional "red tape" and the opportunity to benefit from a negotiated contract approach (as opposed to an international competitive bidding, or ICB approach);
- Assistance in negotiating efficiency goals and securing government commitment to them;
- New insight into public sector responsibilities and concerns, arbitrated by a neutral entity;

- An opportunity to get in on the "ground floor" in the design, development, and implementation of a potentially profitable business with the public sector as minority partner;
- Reduction of project risk (political/regulatory/economic) by virtue of the working group mechanism, being a tangible expression of the government's commitment to the project;
- Reduction of project development and transaction costs; and
- Opportunity to forge alliances with international contractors and investors facilitated by the PDA, the donors or other project participants.

To civil society:

- A mechanism providing for transparency;
- A new form of dialogue among all sectors, providing true access to decision-making;
- Promotion of the concept and culture of sustainable development, eco-efficiency and public participation;
- Stimulating pragmatic and replicable solutions to some of the most widespread environmental problems affecting urban dwellers world-wide; and
- Facilitation of proper solutions through a greater dialogue in which full value is given to local knowledge and interests.

Capacity Building And Institutional Strengthening

One of the PPPUE programme's most valuable contributions has been the project experience gained by local partners, particularly among public sector officials. The experience of participating in the operations of the joint working group, extending over the development life of the project exceeds anything that could be learned through the conceptual training associated with seminars and workshops. This is due in part to the fact that the motivation of the public-sector partners is totally different, since the public-sector manager is treated as an equal in the joint working group, helping to design his or her own future.

Throughout the project development and implementation process, the public and even private sector participants acquire skills in cutting edge project management methods. These skills are then immediately transferable to comparable activities that are not necessarily related to the

PPPUE process. They include but are not limited to: data analysis and collation; market analysis; technology identification and evaluation; inter-sectoral negotiation; business plan preparation,

including financial and econometric modelling; project financing; negotiations with contractors and suppliers; and negotiations with bilateral and multilateral financial institutions.

VII Procurement Solutions

Joint project development through public-private working groups raises questions about alternative public procurement options and accountability. Governments that are addressing public service infrastructure projects increasingly prefer to maximise the role of the local contracting and business community. They are better placed to reduce the project's foreign exchange risk and are often more willing to accept the lower rates of return and longer payback periods inherent in such projects. Concurrently, international contractors have demonstrated a growing preference for the role of "investor/contract manager," rather than "lead investor/lead contractor." These circumstances accompany a new search for alternative public sector contracting methodologies that will reduce transaction costs, ensure more rapid solutions, facilitate an agreed rate of return acceptable to all parties, and provide the necessary transparency to protect the interest and impartiality of the public sector.

Above all, the PPP process aims to attract private sector finance and knowledge to what has traditionally been the riskiest stage of project development – start-up. If the private sector accepts the challenge of becoming (effectively) the "contract manager" of the project development process, it will likely want to be assured of a privileged position in the project implementation contracting process. This means that the public sector must be prepared from the start to consider a contracting process that respects this right. In addition, if firms working on the design phase are barred from bidding on the implementation, they will lack the incentive to develop solutions that are workable.

In some cases, the public sector had difficulty accepting the PPP approach. In most cases, the main area of difficulty was acceptance of the idea that private sector partners can be engaged in a process potentially leading to a profitable business made possible by the good will of the public sector. The public sector has a tendency to fall back into the more traditional "We design, you bid" relationship with the private sector. In this context, the public sector has tended to argue the following:

- The regulatory environment (regulations governing the award of public contracts) does not accommodate anything other than the traditional international competitive bidding (ICB) approach;
- The PPP partner selection process, taking place by definition before the economic and technical parameters of the final project have been finally determined, may ultimately lead the public sector into a "shotgun marriage;"
- Any departure from the sealed-bid tender and contracting method will open the government to accusations of partiality or corruption; and
- Sharing the valuable database of the public service with a partner whose long-term commitment to the project cannot be assured from the outset is a price too high to pay.

Why ICB Will Not Work

International competitive bidding (ICB) rules are designed to ensure a procurement process that is transparent, stimulates interest among a broad range of potential bidders, and delivers the product or service at the lowest possible cost to the government. Under conditions of certainty, such as government purchase of a specific good or service, these processes have generally worked well to inhibit corruption and get the best possible value for the government. As PPPs emerge throughout the world, however, participants have begun to identify inherent conflicts between ICB and the objectives and organisational structures generally associated with joint ventures:

- ICB is designed to work under conditions of certainty, whereas PPPs start and generally evolve under conditions of uncertainty;
- ICB generally prohibits informal communication between the public and private sectors, whereas communication is the cornerstone of a successful PPP and must start as early as possible in the project planning process;
- ICB is designed to get the lowest price for a given product or service, whereas PPPs involve multiple design proposals and often place the highest value on criteria other than the lowest price;
- ICB requires the government to set specific design criteria, limiting the ability of private bidders to propose alternative approaches, whereas PPPs succeed where traditional approaches have sometimes failed because

they are flexible and encourage private-sector innovation; and

- ICB is not suitable for small sized projects. It is expensive to organise and the ratio between ICB costs and actual investment can become unfavourable.

Procurement Alternatives

These concerns have sparked international discussions about possible procurement alternatives. Many agree that, at a minimum, new procurement alternatives should:

- State the desired end goal of the project and minimise specific requirements to the greatest degree possible, allowing the private sector to innovate and propose creative solutions;
- Ensure that potential private sector partners retain or are appropriately compensated for their intellectual property rights in the event they are not brought into the project;
- Establish performance measures and include monitoring provisions, either by a third party or autonomous government agency or official; and
- Include provisions for renegotiating the terms of the contract over time.

Some established national procurement practices provide preliminary frameworks for developing alternative PPP procurement procedures that embody these guidelines. For example, under the Bechtel "Open Book" system, the private sector "contract manager" guarantees full access at all times to the public-sector partner in all his discussions with sub-contractors, suppliers and others. Under the "Swiss Challenge," the "insider" private-sector organisation is asked to match the lowest or most attractive offer secured through a more traditional open tender procedure.

Concerns About Corruption

Alternative forms of negotiation often raise concerns about corruption. The mixed-capital nature of joint venture PPPs, however, inherently mitigates some concerns about corruption. In addition to the disastrous costs that it brings to society, corruption is a price that parties often accept must be paid early in the process. It is therefore, in some regard, a cost of developing the project that each partner capitalises into the operating company. The higher these initial costs, the lower the subsequent return on the investment will be. In a PPP, both groups share an equal

interest in the return on the investment. In doing so, the ultimate shareholders have little interest in front-loading the costs, as this only detracts from their long-term benefits. At all times, the PDA, UNDP and NGOs can help guarantee the transparency, the workability and reliability of such systems.

The ICB/public tender process usually fosters the lowest bid but ultimately the highest price, as profits sacrificed at the bid stage need to be recovered at the design and implementation stage. It can create an adversarial relationship between the public sector and contractors, and a

linear relationship between profits conceded to the contractor and the quality of goods and services it ultimately provides. It provides only relative protection against corruption, which is increasingly accepted by all as a built-in transaction cost. The negotiated contract, in contrast, provides a simpler, faster pre-qualification process; a true partnership in negotiation; equivalent or greater transparency; the possibility of a pre-agreed return on equity for both parties; lower transaction costs, agreed budgets and shared project development costs; fewer design changes and delays; and shared goals regarding profits and quality of service.

VIII Lessons Learned and Conclusions

Lessons Learned

Five years of practical project development work through the PPPUE Project Development Facility has generated a number of lessons for the design of joint ventures and public private partnerships in general. Following is a summary of the lessons learned from the experiences of the PPPUE PDF:

- **There is great demand for technical assistance in partnership development.** Programme countries received PPPUE “with open arms.” PPPUE received more requests from senior government representatives and UNDP country offices than it could handle with its limited resources. National and local governments are receptive to finding alternative solutions to traditional public service provision arrangements. In addition, full-scale privatisation of basic public services, such as water, is viewed with considerable scepticism in many developing countries, making the PPP approach an increasingly attractive option;
- **National and local governments need to build capacity.** Municipalities as well as national governments need to develop their regulatory and legal capacity to foster and participate in PPPs effectively. Projects cannot succeed under prohibitive legal and regulatory frameworks. Before technical assistance can be of much help, national and local governments need help building supportive legal and regulatory environments;
- **Choose the right project.** There is no shortage of potential projects for the PPP approach. The key is to choose one with well-established criteria that has real commitment from the local public and private partners to make it succeed;
- **Projects must be packaged properly.** This is particularly true of small and medium-sized projects. Smaller projects have proportionately higher transaction costs and political risks than larger projects. Also, by adding the innovation of securing eco-efficiency goals and waste minimisation, the importance of packaging, brokering, and convincing becomes clear;

- **Projects take time.** Although the PPP process has the potential to be faster and more cost-effective than traditional project development processes, it must still be seen as a work of patience and detail. There are no real shortcuts to projects in the developing world, and joint venture PPPs are no exception. Bringing so many potential partners together is a complicated and time-consuming task and one that begins with careful groundwork and preparation;
- **High-level political commitment is essential, but it is important to focus on the local level.** Discussions of PPPs at the national level tend to be general in character, and it is important to move quickly to the local level to work with those directly affected by the problems being addressed. Introduction by and approval from the central government is often necessary and useful, but project negotiations are best handled at the local level, where the commitment tends to be stronger;
- **Local leadership is critical.** Projects cannot be developed from overseas. While the external facilitator as well as the right expert for certain assignments are important, it is equally important to have the local partners in the driver's seat. Local ownership and the identification of local champions are extremely important. The full involvement of the UNDP country offices in project formulation development is the best guarantee for building local ownership;
- **Local governments are at the frontline for PPP development in environmental services.** The most important partners for PPP development today are local governments, which have to find innovative answers for the crisis in urban services inherited from the higher tiers of government during the decentralisation process. While a high level political commitment is essential for dealing with the legal and political bottlenecks, capacity building should focus on local governments and other local partners;
- **Every project needs a champion.** Ideally, every project needs two champions – one from the public and one from the private sector. In this vein, outside catalysts can be critical factors in bringing public-private partnerships to life;
- **Every project needs constant guidance throughout the project design process.** Local and international PDAs are instrumental in ensuring that sound project development methodologies are respected, timelines kept, and technical and financial criteria adhered to;
- **Projects need an independent facilitator.** The trust building process needs time and an independent facilitator who in the role of the “honest broker” brings all partners with their different institutional cultures and interests around one table to define common interests. UNDP is recognised as an independent broker by all parties and therefore is well-positioned to play this role;
- **National private sector is the driving force in small and medium sized investments.** Most projects developed under the PDF started with national private sector partners and/or with subsidiaries of international companies in the country. The size of the investments as well as the joint-venture approach, which requires early involvement of all partners, makes it less attractive to international partners to participate from the beginning;
- **Projects must reconcile the different public- and private-sector cultures.** The PPP approach is designed to do this by promoting early dialogue and understanding based on common goals and interests;
- **NGOs and communities are important partners in project development.** While in some PDF projects local NGOs already played an important role, communities were not involved. As the programme turns toward bringing services to the poor, community-based organisations (CBOs) and NGOs will become more important in the role of users as well as partners in investment and operation;
- **Partnerships are sustainable only if they are mutually beneficial.** A dynamic and innovative project development process can create unexpected opportunities and bring tangible benefits to all interested parties;
- **Building mutual trust is vital.** The PPP model is based on trying to work problems out early in the process and on avoiding adversarial posturing between the two sectors. Getting both sides to the table to consider problems together and to identify joint solutions is a critical first step;
- **A new approach in development assistance needs time to be accepted.** Even though many national and municipal governments were attracted by the prospect of private investments in infrastructure, practice revealed various constraints on the political level (e.g., labour and community resistance), and on the legal environment and capacity of

- local authorities. The old habit of receiving grant resources or loans for infrastructure investments is deeply rooted and the change to a new approach, where everyone has to contribute, takes time;
- **Projects need to maintain their momentum.** Shortening the time frame by maintaining and concentrating the momentum of the technical assistance, with maximum reliance on local support consultants, increases the chances of project success by reducing “project fatigue.” It also reduces the likelihood that macro-political and economic changes will ultimately interfere with project progress (the window of opportunity for such projects is not eternal), which reduces the overall development cost; and
- **A focus on joint ventures alone is too narrow.** Various projects initiated during the PDF phase have changed their course and the public partner used traditional contracting or concession modalities instead of building joint ventures. This shows that municipalities need support in choosing from a menu of options rather than forcing one predefined model. On the spectrum of PPP possibilities, the joint venture approach plays an important but not exclusive role.

Of the many lessons learned in the PDF phase of PPPUE, perhaps the most important in guiding the future direction of the program is this: the best project identification and technical assistance is not always enough. In order for PPPs to succeed in improving the lives of the urban poor, national and local governments must be willing to build supportive regulatory and legal environments. As the PPPUE enters its new phase, it will use the lessons learned from its past and continuing participation in actual PPP projects to make critical capacity building tools and information resources available to governments throughout the developing world.

Conclusions

If PPPUE PDF had done nothing more than demonstrate that joint venture PPPs present

another viable and sustainable methodology to be applied to environmental infrastructure problems in the developing world, then the effort would have been more than worthwhile. Clearly, however, the programme has done much more for the nine countries in which it started projects and the dozens of other governments and organisations it has affected through its workshops, Internet databases, and other capacity building tools.

The demands of infrastructure projects in the \$1 to \$25 million range throughout the developing world are enormous. The major international contracting groups have shown little interest in this area, where economies of scale are less readily identified, and where transaction costs and political risks are similar to those of the much larger projects they typically target. In absolute terms, however, the problems are more acute in this segment of the urban spectrum, as medium-sized municipalities struggle with exploding populations, decaying infrastructure, inadequate human and technical resources and traditionally poor financial resources. Worldwide, this segment must become a central focus of development agencies and the international and national entrepreneurial sector.

The PPPUE PDF process is well adapted to opportunities among the so-called “secondary cities” because the nature of the problem is often more critical, and the range of projects tends to be broader. Furthermore, municipalities perceive their project structuring and funding capacities as more modest than in capital cities, and their willingness to accept PPPUE-style assistance is commensurately greater. The municipal support typically serves to reinforce the catalytic, technical assistance role of the PDA, supported by the global mandate and credibility of UNDP in sustainable human development. This is an economic and political area that has, in relative terms, been overlooked by the world's major investment banking and infrastructure contracting institutions. The interest of UNDP and the bilateral donor community is all the more appreciated for this reason.

IX The Way Forward

In the fall of 1999, the PPPUE facility entered a new phase, building largely on the experiences of the PDF projects described in this report. After testing the joint venture approach in diverse environmental projects, the main objective of the new PPPUE Facility is to increase the access of the urban poor to basic services by leveraging investments from all potential private partners, including informal sector and communities. The redesign of the programme also takes into account the special need for creating an enabling environment for public-private partnerships at the local level. This will include policy development and legal advice for pro-poor public private partnerships, and capacity building for local governments, local business and communities on strategies and options to create sustainable and poverty relevant partnerships.

The new PPPUE Facility has three interrelated components: (1) the integral PPPUE National Programmes, which are designed and implemented in the country and managed directly by the UNDP country offices; (2) the PPPUE Flexible Response Facility, which provides resources for specific PPP interventions in ongoing projects and is managed by the PPPUE management team; and (3) the PPPUE Global Learning Network, which facilitates research and the exchange of best practices and case studies on the global and regional level and which is managed by the PPPUE management team in partnership with various academic institutions, development agencies and others.

PPPUE is designed to complement existing initiatives, providing very specific expertise on partnership development with the private sector. As such, the new phase of the facility will focus heavily on partnerships. PPPUE intends to link its activities to related programmes and projects in the local UNDP offices to the greatest degree possible. PPPUE will also continue to work closely with major urban-environment and private sector related programmes of UNDP, other UN Agencies and international programmes. The new PPPUE will work in close collaboration with the Public-Private Infrastructure Advisory Facility (PPIAF), which is hosted by the World Bank. Other partners include international programmes in the water, waste, energy and local governance area, academic institutions, donor governments and

their development agencies, and international NGOs.

PPPUE's core objectives are to increase access to basic environmental services, particularly for the urban poor, and to help create healthy environments and improve living conditions in the urban and peri-urban areas of developing countries. PPPUE's experimental phase (1995 to

1999), and particularly the PDF, provided a strong foundation for meeting these goals, greatly increasing PPPUE's understanding of the problems at hand and indicating the most effective ways to address them. The new PPPUE Facility will build on these experiences and holds great promise for affecting real, positive change in the lives of urban dwellers throughout the developing world.

Appendix A: Forms of Public-Private Collaboration

Following are brief descriptions of some of the more common types of public-private partnerships for the provision of basic environmental services. In reality, these common types are often modified and complemented or mixed with others from along the spectrum. The purpose is to offer a menu of options that can be tailored to address local needs in a cost-effective manner.

- **Awareness Building:** Building the awareness of either governments or private parties of the opportunities for improving the delivery of environmental services through the spectrum of collaborative approaches;
- **Agreeing Frameworks:** Agreeing on the basic frameworks for community or private action through participatory mechanisms, ranging from Local Agenda 21 processes to negotiation of contractual terms;
- **Passive Private Investment:** Making private investment available to government-run operations, such as through the purchase of municipal bonds;
- **Traditional Public Contracting:** Entering into a contractual relationship under which the public sector purchases a product from the private sector or hires a private organisation to design or build a new facility;
- **Operation, Maintenance and Service Contracts:** Entering into a contractual relationship under which the public sector essentially hires a private organisation to carry out one or more specified tasks or services for a specified period. The public sector remains the primary provider of the infrastructure service and is responsible for funding any capital investments needed to expand or improve the system;
- **Joint Ventures (Mixed-Capital Partnerships):** Creating a company jointly owned by the government and private companies, in which they assume co-responsibility for the delivery of infrastructure services. The public- and private-sector partners can either hold shares in a new company or assume joint ownership of an existing company (for example, the public sector sells shares of an existing municipal company to the private sector), which provides

- urban infrastructure services. Joint ventures require that both parties accept the idea of shared risk and shared reward—each must be willing to make quantifiable contributions throughout the project development and implementation process;
- **Build-Operate-Transfer (BOT) Contracts:** Bringing private investment into the construction of new infrastructure plants or the substantial renovation of existing ones by using BOT contracts. Under a BOT, the private sector finances, builds and operates a new infrastructure facility or system according to performance standards set by the government for time periods ranging from 10 to 20 years. The government retains ownership of the infrastructure facility and becomes both the customer and the regulator of the service;
- **Concessions:** Awarding a private firm (concessionaire) full responsibility for the delivery of infrastructure services in a specified area, including all related operation, maintenance, fee collection and management activities. The concessionaire is also responsible for any capital investments required to build, upgrade or expand the system, as well as for financing those investments using the tariffs paid by system users. The government is responsible for establishing performance standards and ensuring that the concessionaire meets them. In essence, the public sector's role shifts from being the provider of the service to the regulator of its price and quantity. The fixed infrastructure assets are entrusted to the concessionaire for the duration of the contract (typically 25 years), but they remain government property;
- **Passive Public Investment:** Bringing government funds to private operations through the grants, equity investments, loans or guarantees offered by a range of public institutions, such as the International Finance Corporation; and
- **Community-Based Provision:** Using any of these or other options to help communities address their own needs. Community-based provision starts when financial or institutional limitations prevent the government from providing adequate waste and water services to particular sectors of the population, forcing residents to find their own means of meeting their needs. Community-based providers might include individuals, families or local micro-enterprises. Community-based organisations often play a key role in organising poor residents into taking collective action and in representing their interests in negotiations with non-governmental organisations and governments. Community-based provision schemes may also be integrated with the formal systems run by the public, the formal business sector or both.

Appendix B: PPPUE PDF Project Profiles

Between 1995 and 1999, UNDP/PPPUE has provided funding for the development of nine projects under the Project Development Facility. The following profiles give an overview of the type of projects, the project development process and lessons learned for each individual process. The reporting period covers 1995 to the closure of the PDF in mid 1999. The nine projects are:

- COLOMBIA: Agua Pura, S.A., Urban Waste Management in Manizales;
- COSTA RICA I: Energy Services Company to Promote Energy Efficiency in San Jose;
- COSTA RICA II: Solid Waste Management in the San Jose Metropolitan Area;
- NAMIBIA: Environmental Project Development Company to Address Water and Waste Problems in Windhoek;
- PHILIPPINES: Integrated Regional Waste Management Facility in Batangas Bay;
- POLAND: Waste Water Management in Siewierz;
- TUNISIA: Greater Tunis Packaging Waste Disposal and Recycling Project;
- TURKEY: Integrated Waste Management Project in Bursa; and
- ZIMBABWE: Energy and Environment Management Enterprise at Willowvale Industrial Park, Harare

COLOMBIA:
Agua Pura, S.A., Urban Waste Management in Manizales

Region: Latin America
Reporting Period: Late 1994 – April 1997
Project Status: Completed
Location: Manizales, Colombia
Project Type: Urban Waste Management
Estimated Investment Range: U.S. \$3.5 M

I. Project Summary

Project Objective

To establish a mixed-capital company to address water quality issues in central Colombia's coffee growing region.

Current Partners – Potential Shareholders

Public Sector

- Gobernación de Caldas
- Empresas Publicas de Manizales (EE.PP.MM)
- Corporación Autónoma Regional de Caldas (CORPOCALDAS)
- Corporación de Obras Sanitarias de Caldas (EMPOCALDAS)
- Central Hidroeléctrica de Caldas (CHEC)

Private Sector

- Coffee Growers Federation
- Corporación Financiera de Caldas (CFC)
- EMAS (operator)

Project Description

The project established a mixed-capital company, bringing together five regional public sector groups and two regional private sector groups, to address water quality issues in the coffee-producing region of Central Colombia. The partners identified the comprehensive urban waste management of 21 outlying towns as a way to reduce pollution in the area's rivers and streams. The project serves over a quarter of a million people in 1998.

Financial Arrangements

In 1996, the public-private group established a subsidiary of Agua Pura, S.A., with an U.S. \$600,000 capital structure. The subsidiary included the municipalities, a private sector operator, and a number of private investors to undertake a global investment of U.S. \$3.5 M.

Shareholders:

- Agua Pura (12 percent)
- EMAS (27 percent)
- Municipalities (22 percent)
- Central Hidroeléctrica de Caldas (5 percent)
- Empresas Publicas de Manizales (28 percent)
- Private Investors (7 percent)

Operational Arrangements

The private firm EMAS operates the mixed-capital company.

II. Project Development Process

Introduction

The coffee sector plays a significant role in Colombia's economy, employing approximately 120,000 people, with an additional 70,000 at harvest time. Caldas represents 50 per cent of the nation's coffee producing capacity. The coffee-bean washing process (separation of the skin from the bean) generates a significant amount of pollution, causing the large number of independent coffee growers to discharge highly polluted water into the streams and rivers of the Department of Caldas. The widespread application of a new coffee washing technology, developed by Cenicafe, would lead to a major reduction in water consumption and pollution.

The Colombian government has tended to manage its public sector operations well, limiting pressures to involve the private sector in these types of matters. Prior to PPPUE involvement, Colombia had not been involved in any joint venture public-private partnerships (PPPs). The PPPUE and Fundacolón, a non-governmental organisation in Bogotá, first identified the coffee project in mid-1994. In October 1994, an independent mixed capital company, Agua Pura S.A. (APSA) was established, bringing together five public sector and two private sector entities. The initial authorised capitalisation of the Company was set at Colombian Pesos 70 million (U.S. \$ 75,000 approximately). The 7,000 shares were initially divided equally among the seven entities.

Identification of Public Sector Partners and Engagement of Government Support

Four major state/departamental agencies joined the Gobernación of Caldas as shareholders in the venture. These included CORPOCALDAS, which addresses environmental issues; EE.PP.MM., which addresses water supply, solid waste and telephone service; EMPOCALDAS, which addresses water distribution; and CHEC, which manages electricity generation and distribution. These parties were chosen because they had an economic interest in resolving the environmental situation in the coffee-growing region, namely the water supply and water quality problems.

The outgoing Governor of Caldas was a key force in driving the creation of APSA, and with the full support of the incoming Governor, was nominated as the Governor's representative on the new firm's Board. The public sector's willingness to involve qualified personnel in the APSA project was instrumental to its success.

Identification of Private Sector Partners

Given the specific nature of the PPP venture, the Coffee Growers Federation was the obvious choice for a private sector partner. The other private sector partner, Corporación Financiera de Caldas (CFC) is a financial institution and subsidiary of the Coffee Growers Federation.

The Departmental Committee of Coffee Growers includes four divisions: Administration and Finance; Engineering; Technical; and Planning and Development. The Engineering Division is responsible for the design, construction and maintenance of infrastructure investments in the area. In the period 1989 – 1993, the Committee invested more in infrastructure projects than the central government. In terms of environmental commitments, the Committee addressed the following issues: deforestation and pollution of watercourses; reforestation; WHO food programme implementation; and the ecological washing of the coffee bean.

Memorandum of Understanding

A Memorandum of Understanding was considered redundant given the early formation of APSA and commitments included in its statute.

Working Group

The fact that APSA was a legally registered commercial company with its own working capital early in the process was fundamental to the success of the PPP process. Early on, the PPPUE consultants asked APSA to develop ideas for a series of projects focused on improving water supply and quality. APSA management presented more than a dozen projects in May 1995 to a UNDP-hosted meeting of potential donors. The PPPUE Project Manager worked with APSA to prioritise the projects to help secure the commitment of key shareholders to the following PPP parameters for the interim APSA business plan:

- Demonstration of effective PPP;
- Economic viability of selected projects;

- Maximisation of APSA “value adding” role in project management;
- Desirability of early results for credibility with potential lenders;
- Demonstrably beneficial environmental impact; and
- Replicability.

ASPA, with input from the PPPUE project team, selected a multiple-municipality domestic waste project for priority economic and technical analysis. In spring 1996, as the Business Plan approached maturity, it became apparent that certain shareholders (particularly the financial institution) had identified an attractive opportunity to lead the funding process for the company. APSA management saw little merit in pursuing the funding strategy initially outlined under the PPPUE programme, which would have entailed presentation of the business plan and investment opportunity to external donors and multi-lateral financial institutions, preferring instead to rely on locally-generated funding. APSA management made it clear to UNDP that it was now prepared to “go it alone” and saw no further need for technical assistance from the PPPUE consultants.

The subsidiary company was established later in 1996 (see Figure for the business structure). Although the public sector maintains the majority of the subsidiary’s shares, management control rests with the operating company (EMAS). (EMAS is also the operator of the Manizales solid waste collection concession, which contributes certain economies of scale). The significant shareholding presence of the Municipalities (22 percent) ensures that they have retained the political benefits of solid waste management, while forming part of a well-managed, improved service to the public. The enhanced presence of the electric generation and distribution company, CHEC, in the subsidiary reflects their role in the invoicing process – the waste services are in effect added to the customer’s electricity bill.

Financial / In Kind Contributions of Respective Partners

The contribution of US \$70,000 in working capital from the APSA partners, as well as access to in-house specialists among the shareholders, ensured that APSA was able to match all contributions made by the PPPUE programme. As a result, the project never experienced a loss of momentum. Furthermore, the fact that each shareholder had an economic stake in the company ensured that solidarity could be maintained among the partners throughout the process.

III. PROJECT Status and Future Prospects

Current Status of Project Advancement

ASPA and its subsidiary operation were capitalised and began operations in 1996. During this time, the original APSA holding company worked with departmental public and private entities to develop environmental strategies.

Future Prospects

The design and implementation of a mixed-capital company to manage solid waste in the multi-municipal area of the Department of Caldas should provide the optimum solution to the unmanageable solid waste collection and management problem that has confronted the local government and the citizens for many years. The project serves as a sound model for exploring similar PPP solutions throughout the region and the world.

IV. Lessons Learned

KEYS TO SUCCESS

Country

- ✓ Strong environmental awareness and regulatory framework provided project partners with the necessary incentives.

Public Sector Partners

- ✓ The project benefited from a large and diverse set of public sector partners that, among other things, helped to ensure broad-based support of the PPP approach; and
- ✓ Novelty of the PPP approach stimulated interest in capacity building among the public sector partners.

Private Sector Partners

- ✓ Strong local partners gave the project widespread credibility; and
- ✓ The presence of local financial institutions facilitated funding of the project in later stages.

UNDP

- ✓ The PPPUE team provided an adequate level of information to the UNDP country office.

PPP Methodology

- ✓ Existence of a registered, capitalised company provided invaluable strength to the PPP project development process;
- ✓ Governance, ownership and commitment to the project was tangibly demonstrated;
- ✓ Internal management and governance mechanisms ensured cost-effective execution of project design process, maximising PPPUE inputs;
- ✓ Local partners visibly matched the economic contribution of the PPPUE programme;
- ✓ Financial commitment from the partners ensured cost-effective decision-making; and
- ✓ Many of the partners benefited from good capacity-building and project management experience.

OBSTACLES AND WEAKNESSES**Public Sector Partners**

- ✗ Novelty of the PPP entrepreneurial approach to some of the public sector partners; and
- ✗ Legislation did not allow municipalities to become shareholders in a mixed-capital company. Through the intervention of the Gobernación de Caldas the obstacle could be removed.

Costa Rica I
Energy Services Company to Promote Energy Efficiency in San Jose

Region: Latin America

Reporting Period: May 1997 – December 1998

Project Status: Advanced Development

Location: San Jose, Costa Rica

Project Type: Demand Side Management, Energy Efficiency and Conservation

Estimated Investment Range: U.S. \$1 – 2 Million

I. Project Summary

Project Objective

To form a mixed-capital Energy Service Company that responds to the demand for energy efficiency services in Costa Rica.

Current Partners – Potential Shareholders

Public Sector

- Ministry of the Environment and Energy (MINAE)
- CNFL (electric utility)
- ITCR
- Banco Credito Agricola de Cartago

Private Sector

- INTECO (energy efficient equipment company)
- Costa Rican Chamber of Commerce and Industry

Potential Donor Partners

- SwissContact

Project Description

The scope of the project includes the creation of an Energy Services Company (ESCO) that will perform services, conduct research, and establish of an energy efficiency fund. The services will include energy audits, energy efficiency advisory services, national and regional energy conservation strategy formulation, and the promotion and commercialisation of energy efficient equipment. Research will be conducted to define technical and energy efficiency norms for equipment and equipment certification. The Energy Efficiency Fund will finance the implementation of efficiency projects and related research efforts.

Financial Arrangements

ESCO will operate as a wholly owned subsidiary of CNFL, selling controlling interest to domestic and/or international partners. CNFL will maintain a minority interest.

II. Project Development Process

Introduction

Costa Rica launched a privatisation programme in the early 1990s. While the government did establish a programme for energy efficiency and conservation, there were no public-private partnership (PPP) joint ventures prior to the Public Private Partnerships for the Urban Environment's (PPPUE's) involvement.

UNDP New York initially approached the Costa Rican government about the PPPUE at the presidential level, which elicited a formal invitation for the PPPUE to send a mission to Costa Rica in June 1997. The UNDP Country Office made all arrangements for the exploratory mission and sent a representative to accompany the PPPUE team. During the mission, the PPPUE team met with public sector groups including Presidential advisors, MINAE, CNFL, Unidad Ejecutora de Rio Azul (UERA), the San Jose Municipality, and a federation

of municipalities that includes San Jose (COCIM). The team also approached potential private sector partners at this time, including the operator of the Alajuela waste site (WPP Continental de Costa Rica S.A.), an association of over fifty small recyclers and sorters (CANARDES), the National Chamber of Commerce and Industry, and CEGESTI.

During the mission, the government presented a variety of projects for consideration. The PPPUE team determined that running two projects simultaneously would increase the chances for success as well as offset variable costs such as travel and communications. The government agreed and two projects were selected:

- The formation of an energy efficiency services company (ESCO) by CNFL; and
- The integral management of municipal solid waste (MSW) in the San Jose area.

This report summarises the ESCO project.

Identification of Public Sector Partners and Engagement of Government Support

Since the proposed energy services company was to be a joint venture with the electric utility, CNFL, the utility was the clear choice to be the public sector partner. Other public sector partners were identified who would not be shareholders but would support the commercialisation of ESCO's services. These partners included the Banco de Credito Agricola de Cartago to finance energy efficient investments and INTECO, the existing normative body for energy efficient equipment. The Ministry of Environment and Energy, MINAE, was also regularly updated as it provided continuous support for the project. Although government elections in January 1998 brought some political change, the ESCO project advanced steadily, driven by the General Manager of CNFL and the Director of CNFL's Energy Conservation Department.

Identification of Private Sector Partners

CNFL initially identified a local consulting firm as a potential co-shareholder in the company. This firm, however, perceived the project as a high-risk investment with no guarantee of final participation and opted not to participate. CNFL therefore developed a preliminary business plan without a private sector partner, but with the support of the PPPUE team. The new company, ESCO, obtained CNFL Board approval to create a wholly-owned subsidiary, from which it would sell controlling interest to national and/or international private sector partners. The ESCO project maintained communications with SwissContact, who had indicated a potential willingness to invest. In addition, ESCO kept the Costa Rican Chamber of Commerce and Industry informed of its progress because it had shown a willingness to help market ESCO services.

Memorandum of Understanding

The ESCO project began with the negotiation of a preliminary Memorandum of Understanding (MOU). However, because CEGESTI did not become a partner, the MOU was not signed by all the parties identified during the initial period.

Working Group

The Working Group consisted of executives and technical and legal experts from CNFL, the PPPUE team, and outside consultants. Working together, the Group prepared a Business Plan for the formation of ESCO. The proposal included an analysis of recent developments in the worldwide ESCO market germane to CNFL's strategy. The CNFL Board approved the Plan in December 1998. Throughout the process, the PPPUE team communicated with CNFL Board and was able to address concerns as they arose. The PPPUE team also maintained contact with the General Manager of CNFL to ensure on-going political backing for the project.

Financial / In Kind Contributions of Respective Partners

CNFL contributed personnel to the project, namely the Director of the Energy Efficiency and Conservation Department and two of his assistants.

III. Project STATUS and Future Prospects

Current Status of Project Advancement

The CNFL Board approved the creation of the mixed-capital ESCO and registered it as a subsidiary. ESCO will sell controlling interest to domestic and/or international partners, with CNFL maintaining a minority

interest. The local CNFL labour force, acting through its trade union, may also be allocated shares in the new company.

Partner negotiations are under way. CNFL has requested that the PPPUE team be present during final partner negotiations. Future consultant input will be managed and financed directly by the UNDP Country Office in Costa Rica.

Future Prospects

CNFL expects that ESCO will not only play a significant role in the internal ESCO market of Costa Rica, but will provide a commercial and technical springboard to expand into the rest of the Central American and Caribbean market.

IV. Lessons Learned

KEYS TO SUCCESS

Country

- ✓ Strong initial support from the highest levels of the government;
- ✓ The PPP ESCO initiative coincided with the government's new approach to privatisation. At the highest level of government the project is perceived as a timely and valuable example of how to move toward private sector engagement in infrastructure and environmental activities; and
- ✓ Ministerial support of the project during key stages further emphasised the relevance of the mixed-capital ESCO to Costa Rica's environmental, energy and privatisation developments.

Public Sector Partners

- ✓ Automatic identification of interested public sector partners;
- ✓ Committed internal management within CNFL; and
- ✓ Small, focused public sector team streamlined the project development process and facilitated the presentation of a sound business proposal to the CNFL Board.

UNDP

- ✓ Constant contact with the UNDP Country Office from the outset emphasised the compatibility of the PPPUE with the country programme;
- ✓ Played an important role in helping to select the project and the local consultants; and
- ✓ UNDP Costa Rica will support the project directly in the future.

PPP Methodology

- ✓ Dynamic local team was able to maintain an acceptable pace of project development and maximise in-country PPP technology transfer;
- ✓ Low profile project was able to make progress in spite of governmental changes; and
- ✓ Sharing variable costs with the Costa Rican MSW project reduced the overall project costs.

OBSTACLES AND WEAKNESSES

Country

- ✗ Project selection occurred only six months before a presidential election.

PPP Methodology

- ✗ The project will not include a private sector partner until fairly late in the business structuring process, which is not the preferred PPP methodology;
- ✗ Low final investment costs of service company versus an infrastructure project; and
- ✗ High impact of variable costs on the ESCO's development.

**COSTA RICA II:
Solid Waste Management in the San Jose Metropolitan Area**

Region: Latin America

Reporting Period: May 1997 – August 1999

Project Status: Advanced Development

Location: San Jose Metropolitan Area

Project Type: Urban Solid Waste Collection, Disposal, and Recycling (Biogas)

Estimated Investment Range: U.S. \$10 – 30 M

I. Project Summary

Project Objective

To form a mixed-capital company that will develop and implement an economically sustainable solid waste management response to improve waste collection, transport, disposal, and recycling processes in the central valley of Costa Rica.

Current Partners – Potential Shareholders

Public Sector

- Ministry of the Environment and Energy (MINAE)
- San Jose and Surrounding Municipalities (COCIM)
- CNFL (electric utility)

Private Sector

- Tradasa (waste collection service company)
- Caleras de Patarra S.A. (waste collection service company)
- 915 S.A. (Canadian group)
- Canardes (federation of recyclers and scavengers)

Project Description

The scope of the project includes the design and implementation of a mixed-capital company to manage solid waste collection, transport, disposal, and recycling in the San Jose Metropolitan area. Among other things, the project will facilitate the transition from the Rio Azul waste disposal site, which has reached capacity, to a new waste disposal site. Also, CNFL will contribute to a proposed effort to capture and burn biogas from the Rio Azul waste site under the scope of the project.

II. Project Development Process

Introduction

Costa Rica launched a privatisation programme in the early 1990s; however, no projects were ever initiated. While the government did establish a programme for energy efficiency and conservation, there were no public-private partnership (PPP) joint ventures prior to the Public Private Partnerships for the Urban Environment's (PPPUE's) involvement.

UNDP New York initially approached the Costa Rican government about the PPPUE at the presidential level, which elicited a formal invitation for the PPPUE to send a mission to Costa Rica in June 1997. The UNDP Country Office made all arrangements for the exploratory mission and sent a representative to accompany the PPPUE team. During the mission, the PPPUE team met with public sector groups including Presidential advisors, MINAE, CNFL, Unidad Ejecutora de Rio Azul (UERA), the San Jose Municipality, and a federation of municipalities that includes San Jose (COCIM). The team also approached potential private sector partners at this time, including the operator of the Alajuela waste site (WPP Continental de Costa Rica S.A.), an association of over fifty small recyclers and sorters (CANARDES), the National Chamber of Commerce and Industry, and CEGESTI.

During the mission, the government presented a variety of projects for consideration. The PPPUE team determined that running two projects simultaneously would increase the chances for success as well as offset variable costs such as travel and communications. The government agreed and two projects were selected:

- The formation of an energy efficiency services company (ESCO) by CNFL; and
- The integral management of municipal solid waste (MSW) in the San Jose area.

This report summarises the MSW project.

Identification of Public Sector Partners and Engagement of Government Support

Early in the process, the Ministry of Environment and Energy (MINAE), working through UREA, and the San Jose and Surrounding Municipalities (COCIM) expressed interest in becoming public sector partners. In addition, CNFL, the electric utility, expressed interest in harnessing the biogas energy potential of the Rio Azul waste site as part of the PPP effort.

Elections and governmental changes caused government support of the MSW project to advance slowly. Up until January 1998, uncertainty about the elections made it difficult to mobilise the necessary local government resources to push ahead with the project analysis. Once the were elections over, the Working Group prepared a formal proposal to submit to the incoming Government, outlining the merits of the public-private partnership (PPP) “shared risk-shared reward” approach. Soon after, the new Government decided to allocate solid waste issues to a “parent” ministry, resulting in a switch from MINAE to the Ministry of Health. During this time the PPPUE MSW proposal moved through the Government with the active support of the President of the Private Sector Recycling Federation, CANARDES, the Minister of the Presidency, and the Mayor of San Jose. At a joint meeting in December 1998, the Ministry of Health and COCIM formally endorsed the PPP approach and submitted a written request to the UNDP office in San Jose to support COCIM in the development of the MSW project.

Identification of Private Sector Partners

The public sector was willing to include any company in the PPP process that was contractually involved in the solid waste business in and around San Jose. This led to the inclusion of a number of small companies, such as truckers and equipment leasing companies, none of which had the managerial experience or the financial backing needed to drive the process. The larger firms that had expressed some interest in the PPP process ultimately decided not to become partners. Political uncertainties, at both the national and municipal level may have stifled interest in becoming involved in a PPP venture.

Memorandum of Understanding

All parties identified in the initial period negotiated and eventually signed a Memorandum of Understanding (MOU). The MOU articulated the commitment of the local parties to mobilise all resources necessary to carry the project development process forward. The MOU process brought together a number of public and private groups that had never worked together to examine a common problem.

Working Group

The Working Group, lead by the Director of UREA, met on a regular basis from October 1998 to January 1998, but uncertainty about upcoming elections made it difficult to mobilise the local government and private sector resources needed to push ahead with the project analysis. Once the elections were over, the Group prepared a formal proposal to submit to the incoming Government. PPPUE and local consultants played a key role in helping to prepare the proposal. Drawing on information from MINAE, UERA, and COCIM, the proposal analysed the solid waste situation and outlined the merits of the PPP “shared risk/shared reward” approach. The visible participation of a wide spectrum of public institutions around a common problem lent tremendous credibility to the proposal.

Financial / In Kind Contributions of Respective Partners

The senior public sector officers contributed a reasonable amount of time to the project and the CNFL members of the Working Group made a significant effort to advance the project analysis. COCIM provided office and secretarial support to the project development team and UNDP helped finance the work of the

Working Group co-ordinator. Neither the public nor the private sector partners made a financial contribution to the project.

III. Project Status and Future Prospects

Current Status of Project Advancement

The Costa Rican Ministry of Health endorsed COCIM's decision to pursue the PPP approach with PPPUE support. COCIM established an internal working group in January 1999 to manage the process, under the leadership of the former President of CANARDES. COCIM has provided the project development team with access to office space as well as communications and secretarial resources. In January 1999, COCIM decided to finalise a pre-feasibility study that would help municipalities decide whether to pursue PPP projects, make larger direct contributions, and engage the private sector in the first round of negotiations.

UNDP Costa Rica will provide additional resources for further consultant inputs. Future technical assistance will focus on the identification of potential private sector partners.

Future Prospects

The design and implementation of a mixed-capital company to manage solid waste in the San Jose metropolitan area would provide an optimal solution to the solid waste collection and management problems that have plagued the Costa Rican government and surrounding municipalities for the past seven years. The PPP model under development, with the active participation of COCIM, should provide a sound model for other municipalities to use to engage the private sector in participating in the solution of urban environmental problems.

IV. Lessons Learned

KEYS TO SUCCESS

Country

- ✓ Strong initial support from the highest levels of the government; and
- ✓ The PPP MSW initiative coincided with the government's new approach to privatisation. At the highest level of government the project is perceived as a timely and valuable example of how to move toward private sector engagement in infrastructure and environmental activities.

Public Sector Partners

- ✓ Automatic identification of interested public sector partners.

UNDP Country Office

- ✓ Constant contact with the UNDP Country Office from the outset emphasised the compatibility of the PPPUE with the country programme;
- ✓ Played an important role in helping to select the project and the local consultants;
- ✓ UNDP willing to take on a more "hands-on" role in the project design and development efforts; and
- ✓ UNDP willing to finance additional support activities.

PPP Methodology

- ✓ Dynamic local team was able to maintain an acceptable pace of project development through periods of government change;
- ✓ Sharing variable costs with the Costa Rican ESCO project reduced the overall project costs;
- ✓ Signature of the MOU brought together a number of public and private institutions that had never before worked together to solve a common problem;
- ✓ High quality of the final proposal helped ensure the government and the Mayor's acceptance and support of the PPP approach and the project; and
- ✓ Although delayed by the election process, the project was able to identify and garner the support of the Mayor of San Jose. The Mayor served as the project's "champion," forging a political alliance with the new government to undertake the project.

OBSTACLES AND WEAKNESSES

Country

- ✘ The selection of a high visibility project at a time of major elections.

Public Sector Partners

- ✘ Some public sector partners were reluctant to put their full political weight behind the project in light of the political elections.

Private Sector Partners

- ✘ Private sector partners provided minimal financial or in kind contributions to the project development process; and
- ✘ Private sector participation came primarily from small businesses, which were unable to represent all applicable private sector interests or to provide the necessary leadership on the project.

UNDP

- ✘ Uncertainty over long-term financing of the technical assistance programme.

PPP Methodology

- ✘ Lack of political commitment in time between the two presidencies undermined the work commitment, which required the PPPUE team to assume a larger role than it normally would. The commitment proved sufficient however to lay the groundwork for the political “push” made by the Mayor of San Jose in the second half of 1998.

NAMIBIA

Environmental Project Development Company to Address Water and Waste Problems in Windhoek

Region: Southern Africa
Reporting Period: January 1997 – August 1999
Project Status: Advanced Development
Location: Windhoek, Namibia
Project Type: Multi-Project Water and Waste Optimisation
Estimated Investment Range: To be defined on a project-by-project basis

I. Project Summary

Project Objective

To use the PPP methodology to identify and develop sustainable projects in the water and waste sectors throughout Namibia.

Current Partners – Potential Shareholders

Public Sector

- City of Windhoek
- Ministry of Trade and Industry
- University of Namibia (UNAM)
- Ministry of Agriculture, Water Affairs and Rural Development, Department of Water Affairs

Private Sector

- Namibia Breweries
- ZERI
- Meatco (major South African meat producer)
- Hartlief (major Namibian meat processing company)
- Namibia Beverages (bottlers of Coca-Cola products)

Project Description

The project plans to use industrial water and waste as input materials for a range of downstream agro- and aqua-businesses using a zero-emissions technology developed by ZERI at a water treatment site. It is anticipated that the project will be expanded to respond to other water and waste management problems faced by the City of Windhoek

II. Project Development Process

Introduction

Namibia is one of the most arid countries in the world and the driest in the Southern African region. Water is scarce and often not of acceptable quality. The sustainable use of water cuts across many sectors of the economy, and whatever decisions must be made concerning the country's infrastructure, water is indispensable for development.

Namibia's population is estimated at close to 1.8 million people, growing at an average rate of 3.1 percent per year. The Namibian government is following a policy of stimulating industrial growth to add more value to the raw materials produced. Based on current trends, the urban population will be doubling within 15 years, while water will be diminishing as reserves are used up more rapidly than they are replenished. This means that sustainable economic development, especially in the urban centres, will be dependent on the ability of Namibia to improve, protect and conserve its vulnerable and fragile water resources.

Public and private sector groups have worked together on water issues throughout Namibia. For example, rural water consumers are working with the government to gain access to common water supplies and to develop the capacity to manage them. However, prior to PPPUE involvement, Namibian counterparts were

not very familiar with the concept of public-private partnerships (PPPs), but they received the idea with interest and enthusiasm.

PPPUE sent a mission to Namibia in January 1997. During this trip, PPPUE consultants initiated the process to create a mixed-capital Environmental Project Development Company (EPDC), whose objective would be to develop incentives for the optimisation and improved management of water, waste, and energy in Windhoek, and through replication, all of Namibia. The company would, as its first initiative, set up an operation to treat the effluent and solid wastes that are generated by Windhoek's northern industries, which the City's existing Water Treatment Plant (UJAMS) is not equipped to handle. Specifically, PPPUE suggested that the company develop a full-scale ZERI Integrated Bio System Facility at the UJAMS complex. The objective would be to maximise reuse of the purified effluent through reclamation irrigation and to implement integrated farming techniques, using all waste as production input resources.

Identification of Public Sector Partners and Engagement of Government Support

The PPPUE team has enjoyed the full support and co-operation of the Namibian government at the highest levels. The Department of Water Affairs is particularly supportive of the project and the Ministry of Trade and Industry is a founding member and co-sponsor of the PPP initiative. The City of Windhoek has facilitated the initiative and provided major engineering support for the preparation of various studies.

Identification of Private Sector Partners

PPPUE and ZERI co-sponsored a workshop in July 1997 with identified public and private sector organisations to launch the PPP EPDC project. Follow-up negotiations led to the signing of the memorandum of understanding.

Memorandum of Understanding

The government, institutional and private sector partners signed the MOU in November 1997. The MOU committed them to establish a mixed-capital company involving the city and private sector partners and to explore the creation of an EPDC to identify projects and conduct feasibility studies to promote them. In the MOU, PPPUE agreed to support the process, advising the Executive Committee on operational, financial, and related project management issues.

Working Group

The MOU established an Executive Committee (EC) comprised of public and private sector partners and chaired by PPPUE to advise on the project. The EC held monthly project meetings and employed a Project Co-ordinator from the University of Namibia (UNAM). The EC commissioned a Pre- Feasibility Study conducted by the Project Co-ordinator, with help from PPPUE. The study discusses the prospects of a technically and commercially viable and sustainable business and recommends the establishment of an operating company to introduce a total effluent treatment and solid waste management facility at UJAMS. Based on reactions to the pre-feasibility study, PPPUE and the Project Co-ordinator developed a detailed Business Prospectus, illustrating the scope and full potential of the proposed mixed-capital business. In November 1998, the partners agreed on and signed an agreement to incorporate a small EPDC with the initial objective of conducting a comprehensive Feasibility Study leading to a bankable document. Shortly thereafter, the EC commissioned a Working Group (comprised of members of the EC and PPPUE team) to conduct the detailed Feasibility Study.

Feasibility Study

The Feasibility Study, which includes a Business Plan, was completed by March 1999. Under the MOU, this marked the completion of PPPUE's contribution to the project. The study confirmed the potential of an environmentally and commercially viable, profitable and sustainable business. It recommended conducting a pilot project at Ujams for 2 years on 1:10 scale to test the Integrated Bio System and adapt the technology to Namibian conditions while providing necessary training to the staff.

The financial projections (in USD) in the Feasibility Report are as follows:

	Pilot Phase (2 years)	Full Production Phase (3 years)
Fixed Investments	322,000	2,765,000
Revenue from Operations	318,000	5,678,000
Cost of Operations (before interest)	-372,000	-1,786,000
Income from Operations	-54,000	3,892,000

Financial / In Kind Contributions of Respective Partners

The partner's financial contribution to the pre-established budget and subsequent Feasibility Workshop is U.S. \$18,000. The City of Windhoek provided support to test water and soil profiles at UJAMS and the City Water Engineer worked on the PPP project full-time for over six months at no charge to the Working Group. The City also made its UJAMS Waste Water Treatment Complex available to the ERDC.

III. Project Status and Future Prospects

Current Status of Project Advancement

Project Implementation Committee chaired by the Interim Project Co-ordinator appointed by the EC has been working on the final stages of the establishment of the EPDC as a limited liability company. UNDP CO, Namibia, has made a grant of US\$ 150,000 to UNAM earmarked as UNAM's equity contribution to the EPDC's Ujams project. This amount constitutes half of the projected budget requirement for the pilot phase. Since the partners are eager for the project to start delivering tangible results, the Project Co-ordinator is planning to downsize the pilot phase and initiate the pilot using the above-mentioned funds from UNAM. The Project Co-ordinator expects that the private partners will contribute once the pilot phase brings more confidence in the viability of the technology.

Future Prospects

The partners have to formulate agreements on the co-ordination and structure of the EPDC, allocation of shares, as well as organisation and management of the PPP with regard to the EPDC, e.g. establishment of the Board of Directors of the EPDC. The Partners would also have to develop a Bankable Document in order to attract additional investors which would require conducting market research for the project output as well as re-evaluation of the private partners' tariffs by the municipality.

The UJAMS Bio System Project is only the first initiative of the proposed ERDC. Once in operation, the EPDC project can be replicated by other municipalities and will create opportunities for pursuing similar ventures in water and waste management.

IV. Lessons Learned

KEYS TO SUCCESS

Country

- ✓ Strong initial support from the highest levels of the government;
- ✓ This initiative successfully introduced the PPP concept to Namibia, and provided PPPUE with important local contacts and experience to facilitate other projects; and
- ✓ The City of Windhoek has provided valuable assistance to the project.

Public Sector Partners

- ✓ Automatic identification of interested public sector partners;
- ✓ Welcomed PPPUE's close involvement in the feasibility phase of the project; and
- ✓ The City Water Engineer has provided valuable assistance to the project.

Private Sector Partners

- ✓ Welcomed PPPUE's close involvement in the feasibility phase of the project.

PPP Methodology

- ✓ Although PPPUE's catalytic and facilitative role was crucial for the implementation of the partnership, this initiative essentially is being driven and implemented by Namibian people.

OBSTACLES AND WEAKNESSES

Country

- ✗ Integrated Bio Systems technology is still relatively unknown in Africa. There are very few PPPs in Namibia and the concept of PPP is not widely known in the country. Privatisation is widely opposed.

Public Sector Partners

- ✗ The Municipality needs to re-evaluate the tariff structure for the private partners as soon as possible to ensure the progress of the project. Private partners' involvement in the PPP is conditioned on the reduction of their waste tariffs;
- ✗ UNAM has to increase its technical support for the project; and
- ✗ The Municipalities, including that of Windhoek, is legally prohibited from holding shares in a private company. The legislation is being currently revised to abrogate the prohibition.

Private Sector Partners

- ✗ ZERI needs to improve its technical support for the project.

PPP Methodology

- ✗ More prompt establishment of EPDC would have offered a more formal and structured framework for working out the apportionment of shares and management issues; and
- ✗ In order to seal the commitment of the private partners it would be preferable for them to contribute their share of equity into EPDC to cover at the least the other half of the required budget for the pilot phase (US \$ 150,000) instead of having to downsize the pilot project thus jeopardising the scientific reliability of the tests.

PHILIPPINES
Integrated Regional Waste Management Facility in Batangas Bay

Region: Southeast Asia

Reporting Period: May 1997 – April 1999

Project Status: Advanced Development

Location: Province of Batangas, Philippines

Project Type: Waste Management (municipal, medical, and hazardous)

Estimated Investment Range: To be determined

I. Project Summary

Project Objective

To form a mixed-capital company that will address the collection, transfer, recycling, treatment and disposal of wastes in the Province of Batangas.

Current Partners – Potential Shareholders

Public Sector

- Governorate of the State of Batangas
- Ministry of Natural Resources
- Philippines Port Authority

Private Sector

- New Zealand Waste Management Limited (NZWML) Consortium.

Project Description

The project will bring together public and private sector partners to form a mixed capital company that will develop a collection, transfer, recycling, treatment and disposal facility for municipal solid wastes, as well as for medical and hazardous wastes in the Province of Batangas.

II. Project Development Process

Introduction

The Philippines does not have an approved facility to collect, treat, recycle and dispose of municipal waste, hazardous waste and medical waste. These wastes are generally disposed of illegally in uncontrolled sites on land and in marine or coastal waterways. Given the growing volume of waste that is accumulating, this presents a growing risk to public health and the environment.

The Philippines has not engaged the private sector's help in solving the country's mounting waste problems. Several attempts had been made, however, to involve the private sector in select projects using traditional procurement methodologies such as public tender. The private sector has been reluctant to invest much time in developing new business in the Philippines. This has created a serious problem for the public sector. Even for viable projects it is very difficult garnering interest from the private sector.

UNDP New York identified the Philippines, specifically the GEF/UNDP/IMO Regional Programme for the Prevention and Management of Marine Pollution in the East Asian Seas, as being of potential interest to the PPPUE. UNDP suggested that PPPUE partner with the Regional Programme to implement a public-private partnership (PPP) initiative in Batangas. A PPPUE mission went to Manila to pursue this idea in February 1998. The local UNDP office made all arrangements for the PPPUE team's exploratory mission. The PPPUE team held meetings with the Minister of Environment and Natural Resources, the Programme Manager of the GEF/UNDP/IMO Regional Programme, the Governor of Batangas Province, the President of the League of Mayors for Batangas Province, and the Mayor of Batangas.

During the meetings, the Regional Programme presented four regional projects for consideration. The PPPUE Project Team suggested that running two simultaneous projects would increase the chances for success as well as offset variable costs such as travel and communications. The government agreed and two projects were selected:

- Development of a collection, transfer, recycling, treatment and disposal facility for municipal solid wastes; and
- Development of a collection, recycling, treatment and disposal facility for medical and hazardous wastes.

Identification of Public Sector Partners and Engagement of Government Support

Public sector parties interested in the project included the 32 municipalities of Batangas, the Province of Batangas (Governor's office), and the Mayors of the two chartered cities of Batangas, Lipa City and Batangas City.

Government support of the project moved forward in somewhat distinct stages. From February to September 1998, the Regional Programme office met with the public sector on a regular basis to gather the necessary data for future feasibility studies. Between October and December 1998, the PPPUE team helped the Regional Programme office organise an Investors Roundtable, which would include private sector companies from several international locations. The Roundtable provided an opportunity to present the two PPP projects to potential private sector investors and contractors and to distribute Opportunity Briefs.

Identification of Private Sector Partners

At first, larger multinational firms were sceptical of the PPP process and of whether or not the PPPUE team really had a commitment from the public sector. Furthermore, most of the firms considered investment in the Philippines too risky. Several firms (specifically those from New Zealand), however, felt more confident knowing that an international aid agency was directly involved. This international involvement, combined with the PPPUE team's knowledge base, proved sufficient to manage the concerns over political uncertainties.

Letter of Intent

Once it became clear that the public sector was willing to work inside the PPP framework, the parties began to negotiate the terms of a preliminary Letter of Intent (LOI). The private sector agreed to finance the cost of the feasibility study, securing their place in the partnership.

All the parties identified in the initial period signed the LOI for each of the Batangas waste management projects, including the municipal waste management facility, the hazardous/medical waste management facility, and two others. The parties at the Roundtable (see above) executed the LOI. The LOI ensured the commitment of local parties to mobilise all necessary resources to carry the project development process forward.

Working Group

The LOI established an Executive Committee (EC), which included the Regional Programme, the Batangas Mayors, and the PPPUE Project team. The EC realised quickly that it was difficult to co-ordinate the schedules of 34 mayors and municipalities. Ultimately, a smaller group representing the public sector and the PPPUE Project Manager ran the work programme. The parties agreed that once a private sector contractor was selected, they would establish a formal working group to manage the process.

At the Roundtable, the Technical Work Group (TWG) announced that any parties interested in the PPP projects needed to submit an expression of interest (EOI). After a series of meetings, TWG selected two firms to present their qualifications and technical approaches to the TWG and other public sector partners. Based on this presentation, TWG unanimously elected to award the project to the New Zealand Management Limited (NZWML) consortium. TWG ensured that the entire selection process remained transparent.

Memorandum of Agreement

Before beginning the feasibility study, the public and private sector parties had to sign a Memorandum of Agreement (MOA). The NZWML consortium prepared the draft MOA, with the PPPUE team providing some assistance. TWG met with NZWML and, barring some minor additions, agreed to the elements and structure

of the draft MOA. The parties agreed that the public sector would disclose any competing deals to the NZMWL and that NZMWL would begin conducting the feasibility study immediately. The parties asked that the PPPUE team continue to support the project through the completion of the feasibility study.

Financial / In Kind Contributions of Respective Partners

The private sector agreed to finance the costs of the feasibility study. The public sector did not make a financial contribution to the PPP.

III. Project STATUS and Future Prospects

Current Status of Project Advancement

NZMWL has agreed to complete the feasibility study by the end of the 1999. The parties are expected to sign the MOA on May 18, 1999.

Future Prospects

New Zealand ODA provided \$220,000 to cover the additional consulting costs through June 2000.

The use of a mixed capital company to manage solid waste in the Province of Batangas provides an optimal solution to the critical waste collection and management problem that has confronted the Philippine government and the municipalities for the past 20 years. The PPP model, under development with the active participation of Batangas and associated municipal governments, will provide a workable model for other municipalities to engage the private sector in solving urban environmental problems (waste and water).

IV. Lessons Learned

KEYS TO SUCCESS

Country

- ✓ Strong initial support from the highest levels of the government;
- ✓ Establishment of a formal channel of request for PPP technical assistance; and
- ✓ The GEF Regional Programme laid solid groundwork for the PPP project.

Public Sector Partners

- ✓ Automatic identification of interested public sector partners.

Public Sector Partners

- ✓ Efficient and transparent process for selecting a private sector partner for the project; and
- ✓ The experience and technological capabilities of the private sector ensure that the Working Group maintained a sufficient momentum to keep the project moving forward.

Donors

- ✓ NZODA support of the project and willingness to finance additional consultant services.

PPP Methodology

- ✓ MOU discussions brought together a number of public and private institutions that had never worked together to examine a common problem;
- ✓ High quality of the final proposal/presentation to the Government ensured greater receptivity to the PPP approach and contributed to the Government and the Mayors decision to promote the PPP approach as the best solution to the problem;
- ✓ Clear support from the highest level of the local UNDP office and NZODA to this high visibility, high-priority project for the Philippine government;
- ✓ The Working Group experience helped identify potential pitfalls early in the process; and
- ✓ Working group served as an indirect means to build capacity at the institutional level.

Obstacles and Weaknesses

Country

- ✘ Selection of a high visibility project with a multitude of political actors has inherent risks.

Public Sector Partners

- ✘ Reluctance of public sector partners to identify one person (a “champion”) to speak and act on their behalf delayed the decision making process.

Private Sector Partners

- ✘ Virtually no financial or in-kind contribution to the project development process.

POLAND
Waste Water Management in Siewierz

Region: Eastern Europe
Reporting Period: Late 1994 – April 1997
Project Status: Changed direction
Location: Siewierz, Upper Silesia, Poland
Project Type: Wastewater Management
Estimated Investment Range: U.S. \$15 M

I. Project Summary

Project Objective

To establish a mixed-capital company to address wastewater problems in the Municipality of Siewierz.

Current Partners – Potential Shareholders

Public Sector

- Municipality of Siewierz

Private Sector

None

Project Description

Under the project, the Municipality of Siewierz would seek private sector partners to develop a PPP project involving the construction of 105 km of a new sewer system, a wastewater collection system and two water treatment plants.

II. Project Development Process

Introduction

Untreated wastewater has historically been discharged into rivers and lakes in the Upper Silesia region, creating substantial water pollution problems that Poland is eager to address. Poland's potential admission into the European Union (EU) would put additional pressure on the government to adapt its environmental legislation to EU standards, particularly in the areas of solid waste and wastewater management.

Poland has one of the most advanced privatisation programmes in Central Europe – its most common approach being build-operate-transfer (BOT). Many Western companies are active in solid waste management and wastewater treatment in large municipalities throughout the country. However, the PPP approach has never been applied within Poland.

The PPPUE identified Poland, Kazakhstan, Uzbekistan, and Azerbaijan as potential project countries in June 1997. After visiting all of the countries, PPPUE selected Poland because of its stable political environment and favourable legislation for the private sector. Following a series of meetings with key government and environmental officials during the PPPUE exploratory mission, a wastewater management project for the town of Siewierz was selected. Under the project, the Municipality of Siewierz would seek private sector partners to develop a project involving the construction of 105 km of a new sewer system, a white water collection system and two water treatment plants.

Identification of Public Sector Partners and Engagement of Government Support

Waste issues in Poland are not corporatised and are still included in the general municipal budgets, rendering the selection of the Municipality of Siewierz automatic. The Municipality expressed a willingness to transform its responsibilities into a separate company that would also be responsible for wastewater treatment.

Identification of Private Sector Partners

The Municipality launched a tender in July 1998 to select a private sector partner. Three out of 29 companies requesting tender documents submitted proposals. Of these, two qualified for the final tender. Since the municipality launched a public tender, the PPPUE did not identify additional private sector partners.

Memorandum of Understanding

The Town Council approved a Letter of Intent in November 1997, in which it agreed to co-fund the project development costs. The municipality and the PPPUE signed a Memorandum of Understanding (MOU) in March 1998, in which the municipality agreed to the PPP approach.

Working Group

While negotiating the MOU, the PPPUE commissioned a legal analysis to confirm that a PPP was in accordance with Polish legislation and had the pre-feasibility technical study translated and distributed to interested private sector partners.

The PPPUE Project Team then started developing a model for small-size municipalities to local companies and or smaller Western companies in their wastewater programs. The PPPUE model separated sewer systems and treatment plants, as sewers represent over two thirds of the total required investment. The model held the municipality responsible for building and financing the sewer network in stages. Low interest loans and grants from the Polish National Fund for Environmental Protection and Water Protection and the Polish Ecofund would supplement municipal resources. Both institutions had already been approached. The newly established PPP firm would finance the treatment plants and operate the sewer network.

III. Project Status and Future Prospects

Current Status of Project Advancement

While there is potential to create a PPP with the companies selected by the tender, the Municipality indicated that it might pursue a more traditional build-operate-transfer (BOT) approach and abandon the PPP model.

IV. Lessons Learned

KEYS TO SUCCESS

Country

- ✓ Poland has one of the most advanced privatisation programmes in Central Europe and many Western companies are active in solid waste management and wastewater treatment in large municipalities throughout the country.

Public Sector Partners

- ✓ Financially strong municipality;
- ✓ Waste water management is the last major infrastructure project to be undertaken by the municipality;
- ✓ Diversified industrial base in the municipality with all major companies already privatised with Western companies; and
- ✓ Municipal authorities are experiencing public pressure to develop wastewater management programmes and facing upcoming municipal elections.

PPP Methodology

- ✓ The Water Department of the Central Mining Institute was willing to work as a local consultant; and
- ✓ Pre-feasibility technical study already completed and financed by the municipality.

OBSTACLES AND WEAKNESSES**Public Sector Partners**

- ✘ Polish municipalities have been courted by numerous foreign companies and have become rather cautious and are often afraid to commit themselves to a partner out of fear of foregoing a better deal in the future; and
- ✘ Lack of understanding of market economy mechanisms.

Private Sector Partners

- ✘ Small size of the municipality makes it difficult for international investors.

TUNISIA
Greater Tunis Packaging Waste Disposal and Recycling Project

Region: Northern Africa
Reporting Period: May 1997 – February 1999
Project Status: Changed Direction
Location: Tunis, Tunisia
Project Type: Municipal Packaging Waste Disposal and Recycling
Estimated Investment Range: To be determined

I. Project Summary

Project Objective

To form a mixed-capital company that will bring economically sustainable solutions to the issues of packaging waste collection, transport, disposal and recycling in Tunis.

Current Partners – Potential Shareholders

Public Sector

- Municipality of Greater Tunis
- Ministry of the Environment
- Governorate of Greater Tunis

Private Sector

- Packaging/Bottling Sector
- Recycling Sector
- Cement Industry

Project Description

The scope of the project is to form a mixed-capital firm to address the collection, sorting and recycling of packaging waste in Tunis, including paper, cardboard, glass, and aluminium, and to sell the recycled waste to re-users and energy generators such as the cement industry.

II. Project Development Process

Introduction

Waste recycling is a clear priority for the Tunisian government. Current environmental legislation favours the “polluter pays” approach, which puts pressure on the packaging industry to find economically viable solutions to recycle and dispose of their products in an environmentally sound manner. Prior to PPPUE involvement, Tunisia had not privatised any major public sector utility or infrastructure service, nor had it considered a public-private partnership (PPP) approach to addressing its packaging waste problems. Numerous examples of mixed-capital companies exist in the industrial sector, however, and there were no legal obstacles to the public sector being a shareholder in a PPP project.

Working under the auspices of the METAP III PPP Regional Initiative, a PPPUE team visited Tunis in 1997 in co-ordination with the local UNDP office. The Team met with many potential stakeholders including the Ministry of Environment, Aménagement du Territoire, the National Waste Management Programme (PRONAGDEC), and the Loi Cadre on Waste. Although the government agreed to public sector involvement in the project, the Ministry of Environment insisted that the project address the operational and management issues on a sustainable basis. After reviewing three of the Ministry’s candidate projects, the Team selected the Recycling and Collection of Packaging Waste project, making it one of two projects selected for joint UNDP/IBRD funding under the METAP III Regional Initiative.

Identification of Public Sector Partners and Engagement of Government Support

The strong position of the central Tunisian government with regard to the private sector made the central Ministry of Environment, acting through the National Agency for the Protection of the Environment (ANPE), an obvious initial public sector partner. ANPE would control the implementation of the incoming legal framework (ECOLEF) that would govern packaging waste, making it directly involved in the legislation's enforcement. The municipalities, particularly Greater Tunis and the Governorates, played a secondary role in the PPP venture. ANPE organised a series of preliminary meetings in 1997, identifying potential private sector partners and introducing them to the PPP concept.

Identification of Private Sector Partners

The preliminary meetings, organised by ANPE, welcomed companies from the waste generating sectors (supermarkets, bottling companies, and soft drink manufacturers) as well as from the recycling sectors (plastic waste and pulp and paper recyclers). The meetings gave the private sector firms an opportunity to air their concerns and express their interests to the public sector officials, which facilitated a mutual understanding of each sides' priorities. A number of private firms, including a plastic waste recycler, committed to participate in Working Group to develop the project further.

Memorandum of Understanding

The Director of Solid Waste at ANPE approved a draft MOU in May 1998. It spelled out the expected role and contributions of the public and private sector partners, proposed the establishment of a public/private Project Development Working Group, and presented a timeline of activities to be co-ordinated by the Working Group. The draft MOU was however never taken any further. Following discussions between the UNDP office and ANPE, the MOU was not submitted to the private sector and the World Bank's preference for financing studies with no private sector participation was adopted.

Working Group

The series of preliminary meetings in 1997 first stimulated a joint working group process, during which some private sector stakeholders expressed their willingness to provide infrastructure (e.g., office space) and other types of support to the process. As discussed above, the decision not to move the PPP venture forward negated any further need for a formal working group.

III. Project Status and Future Prospects

Current Status of Project Advancement

After meeting with the World Bank, the Tunisian government is interested in completing the market studies before initiating any real dialogue with the private sector. Potential private investors within Tunisia have contacted PPPUE and ANPE regarding the project. PPPUE consultants have garnered interest from a Franco-Swiss technology group, but the absence of a proper forum for a joint public-private working group indicates that the project is likely to revert to a classic public tender scenario.

Future Prospects

The project's future prospects are not completely predictable since the initial PPP methodology has effectively been abandoned. It is very likely that the project will be completed through traditional tendering with the support from the World Bank. Even though the partners decided against the joint-venture option, the PPPUE work helped to initiate a process that will provide a sustainable solution to an urgent environmental problem.

IV. Lessons Learned

KEYS TO SUCCESS

Country

- ✓ Supportive legislative environment to encourage private sector to seek economically viable solutions to their waste problems;
- ✓ Pre-existence of some mixed-capital companies in the industrial sector facilitated acceptance of the PPP proposal;

- ✓ Stable political environment in which to pursue the project; and
- ✓ Waste recycling is a clear government priority.

Public Sector Partners

- ✓ Public sector partner involved directly in the enforcement of environmental legislation;
- ✓ Government took the initiative to engage the private sector;
- ✓ Clear statement by the government of interest in developing local plastic waste recycling capacity; and
- ✓ The co-ordinating role played by the government instilled a high level of confidence in the private sector.

UNDP

- ✓ Local UNDP involvement lent credibility to the introduction of the PPP methodology in Tunisia.

PPP Methodology

- ✓ The open forum of information meetings enabled the private sector to air its concerns and interests with the government present, facilitating a better mutual understanding of each sides' priorities;
- ✓ The open forum process facilitated the identification not only of a lead operator but of potentially interested shareholders (users or suppliers of plastic waste);
- ✓ Experienced and well-informed local consultants were able to ensure the reliability of preliminary data, prepare project models at low costs, and provide valuable insight into ANPE;
- ✓ PPPUE has been able to stimulate potential local and international private sector interest in the project; and
- ✓ Relatively low cost of bringing private and public sector partners together to find solutions to common environmental problems.

OBSTACLES AND WEAKNESSES

Donors

- ✗ Difficulty in conveying the merits of the PPP methodology to the World Bank;
- ✗ Consequent reluctance to involve private sector in critical path of the project's development in which they might be involved as investors; and
- ✗ Significant delays in advancement of the project.

PPP Methodology

- ✗ The decision not to press for the signature of the MOU and consequent postponement of any kind of joint working forum, with the technical and financial evaluation of the project in effect conducted with little or no participation (particularly of the potential private sector project operator) significantly reduced the inherent value of the PPP methodology and prolonged the process;
- ✗ Absence of a joint working group has deprived potential investors of the PPP forum for dialogue and joint problem solving on a shared risk/reward basis;
- ✗ The private sector has not been given any incentive to assume part of the project development costs; and
- ✗ The public sector has adopted the traditional mode of allowing external agencies to fund project development costs (World Bank studies) instead of demonstrating a willingness to seek joint solutions with the private sector.

TURKEY
Integrated Waste Management Project in Bursa

Region: Eastern Europe
Reporting Period: May 1997 – December 1998
Project Status: Changed direction
Location: Bursa, Turkey
Project Type: Integrated Waste Management
Estimated Investment Range: To be determined

I. Project Summary

Project Objective

To build on the existing public-private collaboration in the area of packaging waste collection and recycling between the Municipality of Bursa, the private sector CEVKO Packaging Producers Trust, and multinational packaging companies.

Current Partners – Potential Shareholders

Public Sector

- Municipality of Bursa
- Ministry of the Environment

Private Sector

- CEVKO Packaging Producers Trust
- Local industrialists

Project Description

Building on an existing collaborative experiment conducted by CEVKO Packaging Producers Trust and the Municipality of Bursa, the project partners will examine the potential for implementing the experimental model on an economically viable basis, and for expanding project scope to include urban domestic waste, industrial waste, toxic/hospital waste, materials recovery facilities, waste energy biogas, and other miscellaneous wastes.

II. Project Development Process

Introduction

Turkey has a well developed and extremely dynamic private sector; however, transfer of state controlled resources to the private sector, both national and international, has been slow.

PPPUE representatives went to Turkey in November 1996 in co-operation with the Ankara UNDP office and the METAP focal point, working under the auspices of the METAP III PPP Regional Initiative. This trip included meetings with the State Planning Organisation, the Ministry of the Environment, the Tuzla Leather Industry Federation, and the CEVKO Packaging Waste Trust. The CEVKO proposal to address urban and possibly industrial waste in the City of Bursa, in collaboration with the Municipality, was formally passed through the local UNDP office and examined at a joint UNDP/IBRD/SPM meeting in Washington in late April 1997, which selected the CEVKO Packaging Waste Project as one of two projects for joint UNDP/IBRD funding under the METAP III Regional Initiative.

With technical and project structuring assistance from the PPPUE Project Team, the Municipality and the CEVKO Trust have been working to define the geographic, technical and economic scope of the project. Preliminary meetings took place with the Bursa Chamber of Commerce and Industry to identify leading private sector groups that would be prepared to play a primary role alongside CEVKO in the definition and development of this project.

Identification of Public Sector Partners and Engagement of Government Support

CEVKO, which was already working with Bursa on an experimental domestic packaging waste project in the Nilufar sub-municipality, first approached the Municipality with concept of forming a PPP mixed-capital venture. The Mayor and other municipal officials supported the idea and confirmed their willingness to consider using the PPP methodology to address their waste problems.

Early in the project development process, the Turkish Ministry of the Environment expressed its support for the initiative at a meeting organised by CEVKO and the PPPUE Project Team. The strong commitment of the Municipality coupled with the dynamic leadership of its Mayor has been instrumental in launching the project.

Identification of Private Sector Partners

From the outset, CEVKO provided the project initiative, serving as the main link to the Municipality and acting as a driving force for steady progress. Upon reviewing the preliminary project evaluation, CEVKO, PPPUE, and the Municipality agreed to formally engage the Bursa industrial sector in the project. The idea was to identify an industrial zone on which to initiate an integrated waste management programme. The Project Team held meetings with the Secretary General of the Bursa Chamber of Commerce and Industry to determine the best way to bring leading industrialists together to identify additional project “champions” in the local industrial sector.

The Chamber of Commerce and Industry hosted an open forum to present the PPP methodology and the Municipality’s interest in working with local industries to address waste problems. Very few industries attended the meeting, which made it difficult to reach consensus on moving forward. After the meeting, the Municipality approached different sectors of Bursa’s industry with the help of a local consultant. The sectors expressed little or no interest in taking an active role in identifying and developing a project with the Municipality. This is due largely to the independence of private industry in the area and their relative immunity to Municipal pressure on environmental issues, which stems from absence of economic and regulatory pressures on industry to seek solutions.

Memorandum of Understanding

The absence of a meaningful dialogue with the private sector, other than CEVKO, rendered a Memorandum of Understanding inapplicable.

Working Group

The Working Group included the Municipality of Bursa, CEVKO, and PPPUE. The Solid Waste Department of the Greater Bursa Municipality hosted the project analysis working sessions, which took place from September 1997 through February 1998. The meetings were characterised by a high level of commitment and interest from the participants. The Municipality responded quickly in providing the necessary information on the types and sources of waste in Bursa. The Working Group produced a joint plan for approaching the industrial sector; however, for a number of reasons it failed to capture their interest (see above).

Financial / In Kind Contributions of Respective Partners

The Municipality committed significant human resources to provide the necessary background information and identify potential project areas. CEVKO committed time by the Secretary General, who acted as a project “champion” and ensured the appropriate meetings with the Mayor and the Municipality.

III. Project Status and Future Prospects

Current Status of Project Advancement

Failure to engage the Bursa industrial sector on a broad basis led to a change of strategy in June 1998. The Working Group decided instead to focus on a prototype project that would entail a recycling company handling industrial waste from the Bursa Organised Industrial Park (BOIP). The project would involve two or three key industrialists, the BOIP Environmental Department, and the Municipality, with CEVKO as a start-up partner. PPPUE and CEVKO, with help from the Municipality, would conduct a small pre-feasibility study and build a preliminary financial model. The objective of the PPP initiative would be to use the project as a “test-bed” for joint public-private project design and implementation.

PPPUE and CEVKO submitted the proposal to the Municipality in June 1998. In September, the Municipality responded that time constraints associated with their plans for tendering the project, coupled with the difficulties and delays in obtaining government approval for the Municipality to be a shareholder in the venture, rendered their involvement impossible.

Future Prospects

Given the legal constraints, the Municipality of Bursa has chosen not to opt for the PPP approach but to follow instead the traditional BOT route to solve the waste problem of the municipality.

IV. Lessons Learned

KEYS TO SUCCESS

Country

- ✓ Government interest in developing the PPP approach to municipal waste solutions;
- ✓ Existence of some mixed-capital companies in the industrial sector; and
- ✓ Dynamic and powerful private sector with a strong independent entrepreneurial sense.

Public Sector Partners

- ✓ Committed municipality, under the leadership of a dynamic Mayor, was active in environmental projects; and
- ✓ Motivated municipal team with access to reliable data.

UNDP

- ✓ Involvement of UNDP Country Office lent credibility to the introduction of the PPP methodology in Turkey.

PPP Methodology

- ✓ Dynamic private sector group (CEVKO) already active with the Municipality; and
- ✓ Experienced and well-informed local consultant was able to ensure reliability of work undertaken with the Municipality. Personal credibility and experience in advisory work with the public and private sectors enabled the Consultant to operate as effective “on-site” representative of PPPUE in all dealings with CEVKO, the Municipality, and the industry sectors.

OBSTACLES AND WEAKNESSES

Country

- ✗ Independence of private industry and relative immunity to municipal pressure on environmental issues;
- ✗ Absence of economic or regulatory incentives for industry to seek solutions to waste problems;
- ✗ Private sector considers environmental issues to be of secondary importance; and
- ✗ Some distance between the decision-making process at the municipal and central government levels.

PPP Methodology

- ✗ The broad consensual approach to waste project identification and execution failed to secure a tangible response from the Bursa private sector other than CEVKO. A highly specific, pre-evaluated project would have been more likely to capture the attention of the private sector;
- ✗ The example provided by other PPP projects regarding the motivation and engagement of the local private sector was not applicable in this case; and
- ✗ The decision to change to the approach based on a pre-identified project (industrial waste recycling) came too late in the process.

ZIMBABWE

Energy and Environment Management Enterprise at Willowvale Industrial Park, Harare

Region: Southern Africa
Reporting Period: 1994 – 1998
Project Status: Advanced Development, but on hold
Location: Harare, Zimbabwe
Project Type: Energy, Water and Waste Optimisation
Estimated Investment Range: U.S. \$10 M

I. Project Summary

Project Objective

To establish a mixed-capital company to optimise the use of energy, water, and waste on an established industrial area in Willowvale.

Current Partners – Potential Shareholders

Public Sector

- Ministry of the Environment
- City of Harare, Water and Waste Management Authority
- Zimbabwe Electricity Supply Authority (ZESA)
- Industrial Development Corporation (IDC)

Private Sector

- Almin Metals Industries
- Asea Brown Boveri
- Olivine Pty (Subsidiary of the Heinz Corporation)
- Cochrane Engineering
- W.M.M.I. (Mazda Motors)
- Confederation of Zimbabwean Industry (CZI)
- Integrated Energy Systems Zimbabwe (IESZ)

Project Description

The public and private sector partners will form a mixed-capital company to buy bulk electricity and manage its distribution within Willowvale Industrial Park. The project will include demand side management and the provision of technical advice and services to customers in the Park. Based on the results of the energy venture, the project scope may expand to address water and waste issues.

II. Project Development Process

Introduction

The growth of Zimbabwe's industrial base and heavily industrialised areas has placed increasing strains on the nation's energy and water resources and the government is eager to find solutions. Prior to PPPUE involvement, neither the central government nor the municipalities were considering a PPP response to urban waste, water and energy problems. The PPPUE was essentially breaking new ground in this respect, which slowed the initial progress.

PPPUE selected Zimbabwe for initial investigation because of its political stability, established infrastructure, active private sector, and its willingness to consider PPP solutions. The PPPUE undertook several exploratory missions in 1994 and 1995, during which time the team met with central government and municipal officials to present the PPP approach and gather advice on potential projects. Consultation with the Public Works Department of the City of Harare, the Ministry of Transport, the Energy Power Utility ZESA, and selected private sector businesses suggested a common interest in a pilot project to optimise the use of energy, water, and waste on an established industrial area in Willowvale (located 5 miles Southwest of

Harare). Public sector stakeholders were motivated by hopes of an improved energy demand pattern, lower water off-take, and less need for pollution treatment. The potential for lower energy bills and reduced penalties motivated the potential private sector partners. Possible replication on a local, national, and regional scale served as an additional motivating factor for the national government.

Identification of Public and Private Sector Partners

The public and private sector partners came together easily for this project. Public sector partners included the providers of power, water and waste disposal services; private sector partners included the industrial users of these services in Willowvale. PPPUE undertook a pre-feasibility study of the project in 1995 that included workshops involving the utilities, participating industries and a local non-governmental organisation. The study indicated that a viable business could be created to respond to the energy, water, and waste issues of the industrial area and was sufficiently positive for the public and private sector groups to come together to move the project forward.

Engagement of Government Support

PPPUE discussed the proposed project from the outset with senior officials from the involved Ministries – Energy and Transport, Local Government, and Environment. The Ministries expressed strong support for the project with the Secretary for the Environment confirming government backing at the signing of the Memorandum of Understanding (MOU).

Memorandum of Understanding

The original public and private sector partners and the Industrial Development Corporation (IDC), the principal national industrial investment bank, signed the MOU in September 1997 to form the Energy-Environment Management Enterprise (E-EME). IDC joined the venture for three reasons: (1) it had a number of investments in Willowvale; (2) it identified possible new investment opportunities in E-EME; and (3) it saw the potential for replication in a greenfield industrial park it was planning east of Harare in Ventersburg.

The MOU triggered the German Investment and Development Company (DEG) to express interest in the project and to finance a full feasibility study, which was undertaken by the consulting firm Lahmeyer International. The feasibility study confirmed the project's validity and suggested that the company's starting point should be energy management. Under this scenario, ESCO, a mixed capital company involving ZESA, IDC, private industries in Willowvale, and an operator, would buy bulk electricity and manage its distribution within Willowvale. ESCO would also undertake demand side management, providing technical and upgrade advice to its customers in the Park.

Working Group

The MOU provided for an Executive Committee (EC) to manage the project, comprised of the public and private sector partners. PPPUE assumed an advisory role within the EC. The EC met regularly and made all major decisions regarding the project. A Technical and Economic Working Group, under the leadership of the Southern Centre for Energy and Environment (a local NGO), contributed to the development of a Business Plan and Bankable Document against which the partners could make their investment decisions.

Financial / In Kind Contributions of Respective Partners

The partners have not made any financial contributions to the project evaluation process – the private sector claimed it is beyond their remit to do so and the private sector said it was unwilling to contribute without a corresponding public sector commitment. Both the public and private sector partners have however contributed time and engineering capacity to the Working Group and feasibility analyses.

III. Project STATUS and Future Prospects

Current Status of Project Advancement

The Lahmeyer International feasibility study highlighted the need for an operator with energy management skills to play a key role in project development and ultimately manage the resulting business. Since none of the partners had the necessary qualifications, PPPUE identified Integrated Energy Systems Zimbabwe (IESZ) as a possible operator and shareholder. IESZ signed a Letter of Intent with the EC in 1997 in which it undertook development of the Business Plan and in return would become the operator and a major

shareholder in the newly formed ESCO. The EC terminated its relationship with IESZ shortly thereafter when IESZ introduced conditions into the Business Plan that were incompatible with the PPP model. Another credible operator based in South Africa has been identified and is ready to start discussions with the EC.

Future Prospects

Zimbabwe encountered major economic difficulties in 1998. The currency collapsed, interest rates escalated, business confidence fell, and new investment became stagnant. ZESA, the power utility, is reportedly insolvent with politically unacceptable tariff increases their only option. The City of Harare is also experiencing some difficulties and showing signs of political fragility and unrest. Under these conditions, the partners have had difficulties focusing on this project or any other business opportunity. It seems likely that PPPUE will have to wait for less turbulent times in Zimbabwe before reviving this project.

Assuming that Zimbabwe returns to some political and economic stability in the near future and the partners continue to support the project, realisation of ESCO could be achieved in a period of about six months. This would require some additional support through PPPUE.

Beyond this, there is the option of expanding the geographical area of the pilot project and of progressing, as originally planned, into water and waste optimisation. Replication on a local, national, or regional basis appears feasible once the pilot activity in Willowvale has confirmed the validity of the concept. An extension of the logic is the development of the eco-efficient industrial park in association with IDC, which would combine the experience learned in Willowvale with other sustainable concepts.

IV. Lessons Learned

KEYS TO SUCCESS

Country

- ✓ Strong initial support from the highest levels of the government;
- ✓ At a time when Zimbabwe is contemplating increased private sector involvement in a number of key public organisations, the project has provided a useful experience to the public sector in terms of understanding the opportunities in public-private collaboration.

Public Sector Partners

- ✓ Automatic identification of interested public sector partners.

Private Sector Partners

- ✓ The private sector partners developed an understanding that sustainable solutions to eco-efficiency problems can be profitable; and
- ✓ Automatic identification of interested private sector partners.

PPP Methodology

- ✓ Public and private partners worked together, creatively and in a business mode, on common eco-efficiency problems;
- ✓ Public and private sector partners worked together from the project's outset; and
- ✓ Any early and well-developed feasibility study strengthened the commitment of the public and private sector partners.

OBSTACLES AND WEAKNESSES

Country

- ✗ The central government was not aware of the PPP model, slowing the project's initial progress; and
- ✗ Zimbabwe experienced significant economic hardship during the project development process, essentially bringing the project to a halt.

Public Sector Partners

- ✘ Tendering for services is still the accepted means of working with the private sector. Direct negotiations, which may be more appropriate for certain PPP projects, are still considered unacceptable by most municipalities and public utilities; and
- ✘ Not able to contribute financially to the project.

Private Sector Partners

- ✘ Unwilling to make financial contributions to the project in the absence of a corresponding public sector commitment.

PPP Methodology

- ✘ In the absence of a local champion or active local project co-ordinator to drive the process forward, progress has been slow. The partners do not have the necessary operating skills and as a result have tended to be passive in this regard.

Public-Private Partnerships for the Urban Environment

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