

Public-Private Partnership in Sustainable Development: The Case of Puerto Galera



A leap of faith

Tourism is the lifeblood of Puerto Galera. It is the main source of income for the residents and a major source of revenue for the local government. Tourist arrivals have risen from 138,000 in 2002 to 637,000 in 2003 and, reportedly, to more than 1 million in 2004. Along with the growth of commercial activities, the municipality is faced with the challenge of making the tourism boom a sustainable activity by limiting the damage that rapid and unplanned development brings to the environment.

The Sabang Sewerage Collection and Treatment System of the municipality of Puerto Galera was initiated as a consequence of the clamor by the local community to provide a lasting solution to the issue of uncontrolled sewage discharges to the coastal waters. This issue raised fears of bacteriological contamination of beaches, which would undermine the municipality's tourism economy. This also became a cause of concern to environmental groups due to the community's close proximity to a highly sensitive marine biodiversity area, i.e., the Verde Island Passage.

The sewerage project was not a new idea; collecting EUFs was not a new approach; and private sector participation in water supply and sanitation services was not a new mechanism. However, these were "innovative" options for a small municipality like Puerto Galera. People tended to see the innovations in different ways — a breakthrough, a transformation, a leap of faith. They also acknowledged the innovative approaches' close ties with risk, hence, the hesitancy to move forward. It was therefore imperative to pay more attention to the prevailing institutional environment, including the legal, political, financial, and social challenges — which could make or break the sewerage project.

Scoping and Consensus Building

The sewerage project proposal

The project (Figure 1) covered three areas of Puerto Galera — Barangay Sabang and Sinandigan (Zone 1), San Isidro (White Beach) and Aninuan (Zone 2), and Sto. Nino and Poblacion (Zone 3) — where coastal waters were identified by the Philippine Department of Environment and Natural Resources (DENR) as being contaminated with fecal coliform. This raised concerns among the community that is highly dependent on the tourist industry. It was recognized that some waterborne pathogenic diseases that may coincide with fecal coliform contamination include ear infections,

dysentery, typhoid fever, viral and bacterial gastroenteritis, and hepatitis A.

The proposed project involved the collection of wastewater from the households and commercial establishments in the three areas. The wastewater would then be pumped to a sewage treatment plant and treated before being discharged to the sea or reused. The sewerage project had a dual purpose of improving environmental and personal sanitation, and protecting the water quality of waterways and the coastal waters — serving both the interests of individual residents and resort owners as well as wider public and environmental interests.

Based on preliminary assessments, the municipality of Puerto Galera needed to install three decentralized treatment plants located in three strategic areas. It was proposed that the treatment plant's service coverage areas be divided into three zones, namely: Zone 1 — the Sabang-Sinandigan areas; Zone 2 — the San Isidro-Aninuan areas; and Zone 3 — the Sto. Nino-Poblacion areas. A phased-development approach was advocated due to limited funds for capital investment.

The level of treatment proposed was secondary, which would allow reduction of coliform, biochemical oxygen demand (BOD), and nutrient discharges. Use of reed beds/wetland was also one of the options considered in order to polish the effluent prior to discharge to coastal waters. Disinfection of the effluent was proposed, in order to achieve an allowable fecal coliform concentration of 200 MPN/100 ml (See Table 1).

The municipality of Puerto Galera also considered nutrient effluent requirements for the treatment plant. The adopted total organic nitrogen effluent criteria were set at 10 mg/L, whereas the total phosphorous criteria were set at 1 mg/L (as PO₄).

As an alternative to the discharge of the treated wastewater to the sea, reuse of the treated effluent was identified as a possible option, with due consideration to the recurring water supply shortages during peak tourist season. Treated wastewater was proposed as an alternative to potable water for various uses, including laundry and watering of gardens in the resorts. Treated sludge was also identified as a potential ingredient for a compost soil conditioner. Both were considered as potential revenue sources.



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Getting the sewerage project on the agenda

Political leadership, will, and vision are essential ingredients in the planning and development of sewerage projects, considering the many competing demands and limited resources of small and medium-sized local governments. This particular project faced the additional challenge of being planned and implemented across two government administrations. As a consequence of local government elections, the project was initiated by one administration, and planned and developed by the second. Unfortunately, the project's transition across the two administrations was not smooth, with the former local chief executive becoming a major critic of the project.

Hon. Hubbert Christopher Dolor, the new mayor of Puerto Galera and a medical doctor, made hygiene, sanitation, and environmental protection priorities and integral to his objective of bringing in sustainable economic development to Puerto Galera. In pushing the sanitation project, the mayor identified the following key elements (Dolor, 2009):

- making it a priority project within the municipality's Coastal Resource Management Plan;
- mobilizing political and stakeholder support through conduct of public awareness and consultation campaign;
- enforcing national policies and local ordinances;
- implementing an EUF (environmental user fee) system as a financing mechanism for sanitation (solid waste and wastewater management facilities) and other coastal resource management projects;
- piloting and demonstrating public-private partnership (PPP) to improve delivery of sanitation services; and
- focusing on results — in partnership with a private company.

Mayor Dolor showed tenacity in pushing forward the implementation of the project in partnership with a private sector company, and in rallying his constituents to support the sewerage project — which were essential aspects to getting the project on the government's agenda.

With the initial viability of the project assessed and found acceptable by the mayor, municipal council and key local department heads, a decision to go ahead with the project was made. A municipal council resolution was passed, allowing the mayor to sign, on behalf of the municipality, a Memorandum of Agreement (MOA) with the Sustainable Coastal Tourism Asia (SCOTIA)¹ and PEMSEA to enhance collaboration, cooperation, and commitment on the project. The MOA, which was signed on 30 March 2006, stated the respective roles and responsibilities of the municipal government, PEMSEA, and SCOTIA.

PEMSEA's role in the project was to facilitate the conduct of a pre-feasibility study, sewerage and wastewater treatment plan, willingness-to-pay (WTP) survey, drafting of ordinances and other legal requirements, and essentially building the capacity of the local government in project structuring, procurement process, and partnership development and sustainability.

SCOTIA's role was to provide assistance in building the capacity of the local officials and the tourism nongovernmental organization

Table 1. Project description.

A. Sewerage collection system	
Area coverage	Barangay Sabang and adjacent areas
Total area of coverage	4.48 km ²
Total wastewater catchment area	127,697 m ²
Current wastewater flow rate	3,135 m ³ /day
20-year maximum wastewater flow rate	7,163 m ³ /day
B. Wastewater treatment plant	
Proposed wastewater treatment capacity	3,500 m ³ /day
Technology	Second ary (biological) treatment
Effluent requirements	Minimum requirements: BOD: 20mg/l Suspended Solids (SS): 20 mg/l
Site of treatment plant	Subject to environmental compliance certificate (ECC)/ environmental impact assessment (EIA) approval
C. Financial requirements (estimated)	
Capital cost (including collection/ conveyance system, treatment facility, pumping stations, outfall and land)	PhP100 million
Annual cost	
- annualized capital cost (15% p.a., 7 years)	PhP24 million
- operating and maintenance cost	PhP11.5 million
- management cost (15% p.a.)	PhP14 million

(NGO) in developing and implementing a communication plan for the sewerage project. PEMSEA and SCOTIA worked together in conducting stakeholder consultations and creating awareness about the issues and solution options, including EUFs and the sewage treatment system. A demand-driven approach was used along with suitable technology, increased financing, political commitment, and accountability to ensure that sanitation remained on the political and public agenda.

Determining the financial means

The municipality of Puerto Galera has very limited financial resources, approximately PhP 50 million per annum, plus an internal revenue allotment from the national government of about PhP 25 million. The main sources of revenue for the municipality were the business, community, and real estate taxes, which accounted for 18 percent of the total. The local revenues from the water distribution system were also one of the biggest sources of income, accounting for 14 percent of the total.

Moreover, the municipality did not have a track record in undertaking similarly-sized investments. As such, it had limited options in the form of pure debt financing or a joint venture arrangement. The local government had to address the issue of investor confidence in order to attract funding. Building up the financial resources of the municipality was critical in order for it to access loans, attract private sector investors, and show that it could pay its debt obligations as well as cover the necessary annual

¹ SCOTIA is a regional environmental project supported by the United States Agency for International Development, which objective is to strengthen local capability for the protection of the coastal and marine ecosystem in project sites in order to sustain their tourism value.

operating and maintenance expenditures, achieve reasonable levels of return on the investment (profit), and return sufficient funds to pay taxes and replace infrastructure as the system reached the end of its useful life (depreciation).

Investing in a water supply and sewerage system would indeed seem insurmountable – a situation recognized by the municipal government, and pointed out by the resort owners who were skeptical that a sewerage system could be put in place in Puerto Galera given the institutional and financial challenges.

Considering the level of investment involved, the commitment of the local government and the support of the communities and local private sector had to be concretely shown to attract investors and private operating companies. Given the limited revenue collection and internal revenue allocation from the national government, PEMSEA proposed the establishment of an environmental management fund, with funds raised from the collection of EUFs from tourists. The rationale for collecting EUFs from tourists was quite obvious: a million tourists were using/ consuming and enjoying the natural resources; a million tourists were generating more wastes than 2,000 households; a million tourists can contribute to the protection of the natural resources and the environment so they and the next generations can continue enjoying the benefits that nature has to offer.

Packaging and Promoting: Working with Everyone

Involving the stakeholders – from planning to implementation

To raise awareness, promote behavioral change toward improved sanitation, and get public support for the sewerage project and the financing strategy, a systematic information, education, and communication (IEC) campaign was undertaken, involving key

stakeholders – from planning to implementation of the project. PEMSEA, together with SCOTIA, supported the local government in conducting stakeholder consultations, development and dissemination of IEC materials, social marketing, and capacity and consensus-building workshops.

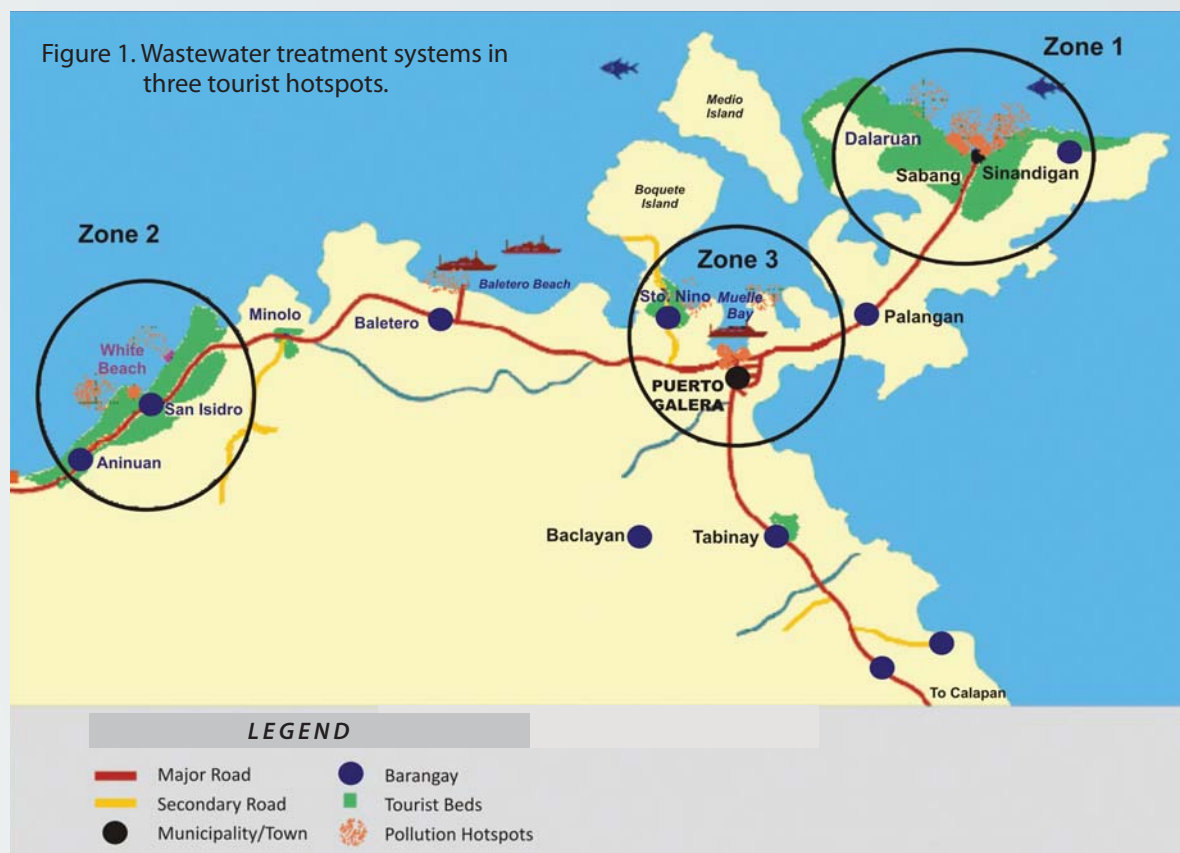
Key stakeholders (local government staff, resort and dive shop owners/managers, transportation groups, etc.) were invited to participate in a capacity-building and action planning workshop on social marketing, and information and education campaigns. Subsequently, posters, flyers, and videos were produced and distributed around the town and province. Jeepneys, tricycles, and many *bangka* (motorized boats) carried these posters as part of the wide-scale promotion drive.

The activities of other organizations also contributed to raising awareness of the people regarding unsustainable tourism development, deteriorating water quality, and degradation of coastal resources. For example, the World Wide Fund for Nature (WWF)-Philippines focused on sustainable fisheries and coastal resource conservation, including the establishment of marine protected areas. The Locsin Foundation and the group of Maribel Ongpin raised the issue of resorts and establishments that violated the restrictions on development in the foreshore and salvage zone, height requirements and discharges of untreated wastewater. It was important to explain to the local stakeholders and NGOs that the sewerage project was not a separate issue, but in line with the broader objectives of the Coastal Resource Management Plan and sustainable tourism goal of the municipality.

Gauging the demand

To assess public perception regarding coastal management, sanitation, sewage treatment, and collection of EUFs to support

Figure 1. Wastewater treatment systems in three tourist hotspots.



Box 1: The PPP process.

Developing and implementing investment opportunities entail a behavioral change on the part of local government and its constituents. To be effective, the identification and promotion of investments requires a methodical and transparent process, involving local officials, communities, private companies, civil society, and other interested parties. A methodical process provides stakeholders the chance to participate in the development of the project, including the assessment of technical and financial options; selection of partners; determination of affordability; and appropriate allocation of resources, risks, and rewards. Stakeholder involvement and transparency are essential to partnership development, where the foremost objective is to build a trusting relationship among potential partners and ensure social acceptability. Thus, the process must be clear and understood by all, and there must be a firm commitment to follow it through.

PPP is at the heart of a government's attempts to develop infrastructure investments, but this strategy comes with considerable risks. Neither governments nor private firms alone are likely to have the resources to build essential infrastructure and bear all the risks. Hence, the scope for mutually beneficial partnerships between the public and private sectors involves an allocation of rights between partners as well as a corresponding allocation of risks, roles, and responsibilities.

Governments that have market-oriented policies and financing mechanisms (e.g., user pays/polluter pays policies; incentive programs for environmental protection and sustainable use of natural resources; etc.) are more likely to successfully engage in PPP. Access to financing and mechanisms for cost recovery and/or revenue generation are major considerations in undertaking environmental investments.

Moreover, PPP projects are more common in countries with strong and effective political and legal institutions, and where the legal code protects investors' rights (Hammami, et al., 2006). Transparency in transactions, consistent enforcement of policies and laws, control of corruption, a level playing field, accountability, and rule of law create a more conducive climate for investments. PPP arrangements are contractual arrangements by definition. As such, their sustainability depends critically on the regulatory environment, which in turn is shaped by the capacity and quality of government institutions.

Figure 1 shows PEMSEA's process of developing a PPP as an environmental investment mechanism, as applied in Puerto Galera.

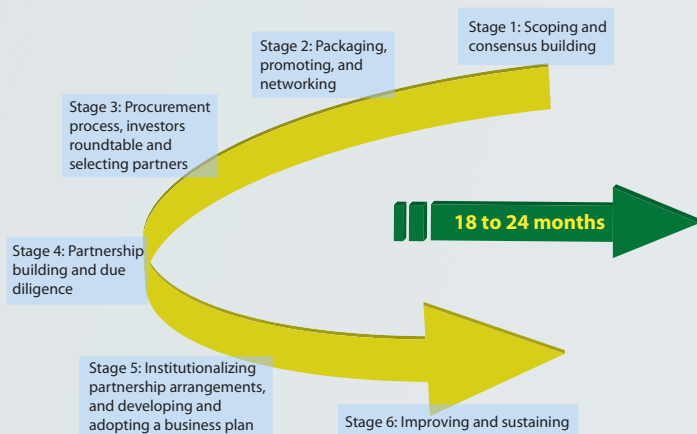


Figure 2. PEMSEA's PPP process in the development of environmental investments.

these programs, a willingness-to-pay (WTP) survey was conducted among three sectors, namely: foreign and local tourists, households, and establishments. As part of its technical assistance, PEMSEA conducted a training workshop on contingent valuation method and survey techniques for enumerators and local staff. The local government, in collaboration with PEMSEA, WWF, and SCOTIA, conducted the WTP survey. Through this survey, estimates of demand for the proposed services or WTP were determined as well as the factors affecting preferences. In addition, the survey also attempted to determine people's support, priorities, and WTP for environmental management programs; assess people's degree of awareness; and disseminate information.

From this WTP survey, a range of "prices" were obtained, which were then used in: (a) ascertaining the social acceptability of EUF; (b) determining EUF levels that can be collected from users; (c) the conduct of financial analysis; and (d) drafting of the ordinance for the establishment of an EUF system. In the past, most EUFs were structured based on arbitrary rates, perceived affordability, or full cost recovery. The WTP survey allowed the assessment of affordability, acceptability, and potential financial viability among the primary users.

On average, the household respondents were willing to pay PhP 50 (US\$ 1) per month for the sewage collection and conveyance system and wastewater treatment plant. For the commercial establishments, the average maximum amount that the respondents were willing to pay for the sewerage system was PhP 151 (US\$ 3) per month. Only 3.5 percent of the respondents from the establishments gave a zero bid.

There was high WTP for EUF by tourists. The average WTP for both local and foreign tourists was around PhP 274 (US\$ 5.50) per visit. Separate estimates for local and foreign tourists put the WTP at PhP 70 (US\$ 1.40) and PhP 530 (US\$ 10.60), respectively. Around 10 percent gave protest bids or zero WTP.

The results of the public perception and WTP survey were used as inputs in the drafting of the ordinance on the establishment of the EUF system. The municipal council (Sangguniang Bayan) enacted the EUF ordinance (No. 06-03, Series 2007), which set the amount of EUF to be collected from tourists and the purpose of EUF; established a collection system for EUF and the special account Trust Fund; identified the uses of the fund; and defined the management of the fund. The EUF ordinance went through a series of public hearings and stakeholder consultations. The Implementing Rules and Regulations were approved through Executive Order (EO) 12 and EO 17-07 on 8 October 2007.

The initial EUF was set at PhP 50 (about US\$ 1) per tourist, which was well below the average WTP estimate for tourists.

Changing people's mindsets

An IEC campaign was essential given that some respondents – households, establishments, and tourists – had declared protest bids (i.e., they were not willing to pay). For households, the reasons were: (a) no money, cannot afford to pay the monthly fee (34.5 percent); (b) satisfied with existing conditions (10 percent); (c) it's the government's responsibility (41 percent); and (d) it's the tourism sector's responsibility (14 percent). This implied the need for an IEC campaign to explain the responsibility of each individual/sector in the management of Puerto Galera's resources and environment, and the objectives and expected outputs of the EUF collection.

Establishing an EUF system requires public consultations and consensus. It was essential to explain the purpose and objectives of a sewerage project and the EUF system, how the fees will be used and how the communities will benefit (e.g., share in the revenues from sales of compost and recyclable wastes). Studies have demonstrated the social and economic costs of “no action”, thus, at the end of the day, it is still prevention—through advocacy and awareness campaigns—that will save communities’ human and financial resources in coastal cleanups, health damage, and recovering lost revenues from tourism and fisheries.

The IEC campaign was successful. During the public hearing on the issuance of the Environmental Compliance Certificate (ECC), residents, tourists, and the business community turned out to discuss the project. A number of problematic issues and concerns were raised, including rights-of-way for the sewage collection and conveyance system, potential odor from the sewage plant operation, and effective management of the EUF system. However, with the explanations provided by the project proponent and the mayor, there was ready consensus on the need for and benefits of the project. As one tourist facility owner expressed, “We have been waiting for this project for more than 10 years!”

The Procurement Process

PEMSEA organized a series of capacity-building workshops for the local government unit (LGU), with the Build-Operate-Transfer (BOT) Center of the Department of Trade and Industry providing the resource persons, to enhance the capability of the LGU staff to undertake the procurement process. Technical assistance was provided to assess the various arrangements by which the private sector could be engaged in the project, prepare and issue the request for proposals, and evaluate, select, and award the contract. In the end, the municipality decided that the proposed partnership arrangement to be offered to the private sector would include the design, construction, financing, and commissioning of the sewerage system. The private sector would then turn over the facility to the municipality for operation. The municipality’s commitment was to pay back the capital cost of the sewerage facility to the private sector over a 10 to 15-year period, as well as to compensate the private sector at agreed interest rate and profit margin. The request for proposal also invited interested companies to include terms and conditions of a management and operating contract for the sewerage facility, which the local government would consider as an option to a government-operated sewerage facility.

The request for proposals was issued in July 2008. The sewerage plan, pre-feasibility study, WTP survey, and ordinances were packaged for presentation to interested investors, financial institutions, and private companies. These were also uploaded to the project’s website.

The municipal government organized a prequalification, bidding and awards committee to receive and evaluate proposals from interested investors and private sector companies, and select the “best” proposal and partner for the design and construction of the sewerage system. Five proponents originally expressed interest in the project, culminating in the contract award to the Puerto Galera Water Consortium (now incorporated as Puerto Galera Infrastructure Corporation).

Box 2 shows the proposed project design and enhancements that were made by the private company. The sewerage proposal, as submitted, was linked with the water supply project. A value-added

Box 2: The private sector’s added value in project design.

The Puerto Galera Water Consortium submitted a successful proposal in response to the request for proposals, including a number of value-added features:

Conveyance. The proposed solution for the collection and conveyance of sewage will intercept the sewage along the beachfronts and convey this to the treatment plant. The main sewerage system will be aligned along the perimeter of beachfront resort developments emanating from the eastern portion of Sabang Beach, towards the west to Small Lalaguna Beach, ending in Big Lalaguna Beach, to connect inland to the wastewater treatment plant.

Treatment. The wastewater treatment utilizing SBR-NH4 PO technology is proposed to be located within a 5,000 m² property in Big Lalaguna.

Disposal. The project’s terms of reference located a discharge point in Big Lalaguna towards the sea. However, inasmuch as the area has been declared a protected area and tourism zone, the proponent has proposed to upgrade the effluent classification to meet SA* criteria, wherein the effluent will not be discharged to the marine waters, but rather to a wetland or biotope. This will be developed in a 3,000 m²-property acquired by the municipality of Puerto Galera along the fringe of a wetland for infiltration.

Project enhancements

The project will allow other enhancements, including improvement of the beach walkways to be undertaken along with the installation of the sewerage system. Built-up areas along the beaches of Sabang, Small Lalaguna, and Big Lalaguna encroach upon the required 25 meters easement away from the high tide water mark per Presidential Decree 1805, Amending Presidential Decree No. 1605-A (6 January 1981), and mostly built to high tide level, leaving no beachfront. In Sabang Beach, existing structures are built up to within 20 m from the mean lower low water line. This requires not only providing for utility facilities, but safe access to pedestrians, especially since convenient access between the three beaches is along the shore due to the area’s topographic conditions.

Further, to effectively “clean up” the coastal waters, there is a need to address issues regarding safety and aesthetic conditions posed by haphazard system of bancas embarking, disembarking, and parking in Sabang. The current condition disallows safe recreational use of the beach. An appropriate water transport landing and parking facility has been integrated as an enhancement. Aside from safety and aesthetics reasons, there is a need to install proper water transport facility to enable ease of embarking and disembarking for passengers; and inspections of bancas by local officials to ensure their compliance with waste disposal and sanitation regulations, as currently, banca operators discharge bilge water from their engine compartments to the marine waters.

Along with the embanking, landing and parking facility (jetty pier), another feature is the provision of a proper passenger waiting area and restroom facilities, upgrading current tourist and passenger facilities in Sabang. Note that this water transport facility or jetty pier component of the project will undergo a separate environmental impact assessment, and is not covered by the IEE for the sewerage project.

* Class SA refers to: 1. Waters suitable for the propagation, survival and harvesting of shellfish for commercial purposes; 2. Tourist zones and national marine parks and reserves established under Presidential Proclamation No. 1801 existing laws and/or declared as such by an appropriate government agency; and 3. Coral reef parks and reserves designated by law and concerned authorities (DAO 34, 1990).

Table 2. Effluent criteria for SB² classified marine water.

Parameter	Effluent criteria (value)
BOD5	30 mg/L
OOD	60 mg/L
TSS	50 mg/L
Total Coliform	3,000 MPN/100 mL
Surfactants	2.0 mg/L
Oil and grease	5 mg/L

feature included enhancement of the foreshore area to improve access and use of coastal amenities, to maintain and protect the foreshore from further encroachments, and to serve as a corridor for the installation of the upgraded water distribution system and the sewage collection and conveyance system.³

Partnership Building and Due Diligence

Assessing and mitigating environmental impacts

One of the key requirements before construction was the issuance of ECC. This was a process undertaken by the private sector proponent in collaboration with the local government.

An initial environmental evaluation (IEE) for the Sabang Sewage Collection and Treatment System was conducted to establish the existing environmental and socioeconomic conditions in the service and project areas; to examine the project's alternatives; and to identify ways of mitigating its adverse effects and enhancing environmental and socioeconomic impacts of the project. Furthermore, the IEE presented a comparative scenario of the environmental conditions with and without the project, as well as alternatives to the project to show that it is most advantageous and responsive to the given project objectives and consistent with local, regional, and national development plans and goals.

Following a public hearing on the proposed project, in which residents and the business community directed questions to the project proponent, representatives of DENR, and the mayor, it was deemed that the IEE was sufficient for assessment and issuance of

an ECC for the project. The ECC was subsequently issued in September 2009.

Assessing the financing and cost-recovery mechanism

Financing arrangements to cover the capital investment costs were initiated with the Development Bank of the Philippines (DBP), for a 15-year facility. DBP's indicative loan terms included: a grace period of 3 years; an interest rate of 9.50 percent per annum; and a 1 percent commitment fee and a 0.75 percent closing cost.

However, project startup was delayed because the required documentary submissions to DBP could not be completed due to the following:

- Based on the financial assessment, the existing collection level from EUF was not sufficient to cover the amortization.
- The present structure of the EUF system did not provide a source of "steady" stream of finance for capital cost amortization since disbursement was not fully controlled (i.e., 65 percent for other use, not clearly mandated by the EUF ordinance).
- The site acquired by the local government for the wastewater treatment plant could not be utilized for the proposed technology. Another site was identified for acquisition, and rights-of-way had to be negotiated for the access road and sewage conveyance system.

The local government understands that the EUF at its current structure is insufficient to cover the annual amortizations and operations and maintenance costs. It has identified means to close the financial gap by way of:

- increasing EUF to Php 100 – 150 per visitor;
- imposing EUFs to be charged to households and establishments on a municipal-wide basis;
- imposing fees per dive;
- allocation of terminal fees from the pier to be constructed in Sabang as part of the project's



² Class SB refers to: 1. Recreational Water Class I (areas regularly used by the public for bathing, swimming, skin diving, etc.); and 2. Fishery Water Class I (spawning areas for Chanos chanos or "bangus" and similar species) (DAO 34, 1990).

³ A United Nations Economic and Social Commission for Asia and the Pacific (2009) study of utilities in different countries found that returns on investments in water and sanitation/sewerage together are *three times* higher than investments in either one sector alone.



enhancement; and

- allocation of rental income for leaseable areas along the pedestrian/utility system boulevard to be developed along Sabang Beach and improvement of rental income from other beachfront properties owned by the municipality.

The additional income to be derived from these options need to be quantified, and further covered by municipal ordinances. The option that holds better promise is to increase EUFs charged to tourists/visitors to Php150 since this poses no political backlash as tourists/visitors are not “voters” of the municipality. Nevertheless, without clear accounting and auditing procedures, and fully controlling the disbursements and earmarking sufficient percentage of the collection for the sewerage project, the additional revenues may still go to “other uses”. Thus, the challenge lies in ensuring that there will be renewed and sustained commitment to infrastructure financing and fund management, and that this will be supported by work to improve governance. What matters most are the supporting local ordinances that are put in place, and the success in implementing them.

Institutionalizing the Partnership Arrangement

Keeping the momentum

Puerto Galera’s incipient environmental crisis must be met with a clever mix of new solutions before it’s too late to save. The critical

actions of taking on responsibility for a new policy and approach to environmental sanitation, changing mindsets to mobilize action, charging EUFs, partnership with the private sector, and focusing on results are good ingredients to start with. But the recipe remains to be proven. As a pilot project, the sewerage project demonstrated innovative approaches that can be further refined and replicated.

- **Strong local government commitment and accountability:**

Like many other local governments in the East Asian region, the establishment of a sewerage system is not just a public works project, but also a project that involves political will, policy reforms, capacity building, and social acceptability. Institutional capacity development is all about reforms, and accepting that changes do not happen overnight. Strengthening an institution requires strong leadership that can drive a top-down and bottom-up transformation process. To be able to put all problems, issues, and options on the table and behave in a transparent manner, good governance is a must.

- **Clear legal and institutional framework and regulatory capacity:**

Local governments have to understand their role and responsibility in bringing about environmental improvement infrastructure development, and effective and sustainable services and partnerships. A firm legal basis for the financing and partnership arrangement produces a safe environment for investors. Puerto Galera underwent capacity



development at the same time that it was developing the project financing structure and supporting ordinances, and procuring private sector participation. Capacity-building workshops for the local government staff and other stakeholders included the development of a communication plan, the conduct of WTP survey, the drafting of the EUF ordinance and request for proposals, and the procurement and evaluation process. This approach has reinforced the sense of ownership for the project.

- **Support and involvement of stakeholders:** A strong community demand-driven project is critical to achieve successful implementation. Without strong support and desire by the local community for the project, there is high risk of failure. This demand would ensure political support, and will not allow for political maneuvering toward gaining community resistance to the project. However, there is a need to raise awareness and increase knowledge in order to stimulate demand. In the case of Puerto Galera, people have a high awareness of the environmental problem and want the government to prioritize solving it. Asking them to pay for it though was a contentious matter that required a series of consultations and consensus-building processes.
- **Efficient project design:** Appropriate technology and project structuring are needed to ensure that the wastewater is collected and treated properly and environmental standards are met. Regardless of cost, all systems should address sanitation all the way from toilets to rivers and coasts. In Puerto Galera, the prefeasibility study and sewerage plan with the technology parameters and options were developed prior to engaging the private sector to: (a) make sure that the stakeholders understood the project and the required commitments; and (b) provide basis for the terms of reference as part of the procurement process.
- **A systematic and transparent procurement process:** With technical assistance (from PEMSEA and the Philippine BOT Center), the local government was able to develop the request for proposal, secure interest and proposals from private sector companies, and evaluate the submitted technical and financial proposals. Rigging of bids and corruption are issues that have been raised in many projects, thus, transparency and formal public process were undertaken in the screening and evaluation of proposals/bids.
- **Cost-recovery/revenue-generating mechanisms:** Ability to recover the costs and ensure a stream of revenue will sustain the service delivery, and ensure that the facilities are operating efficiently and being maintained. Subsequent replacement and upgrading needs and expansion of the coverage area can likewise be addressed with available funds. The consumers must be aware why they should pay EUFs and not get the service for free, and at the same time, the government and its private sector partner must ensure the quality and timely delivery of service to encourage people to pay. Effective project design and business plan are essential to push the project forward.

Should any of these key success factors be absent or weak, efforts on institutional capacity development and ensuring environmental sustainability will still be an uphill battle.

Conclusion

It is important to keep in mind that PPP is not a panacea, but an alternative delivery mechanism, especially when local governments lack the technical capacity, financial resources, managerial capability, and business skills required to deliver sanitation services more efficiently. Technical assistance – from national government and development agencies – can play a crucial role by helping local governments to package bankable projects. Capacity-building activities should focus on developing appropriate skills and attitudes, sharing knowledge of solution options, and enhancing the legal and regulatory system and management structures – key elements in ensuring and sustaining partnerships.

The Puerto Galera sewerage project has some success stories to share, but there are still challenges, which if not addressed, could outweigh what have been achieved so far. Foremost concern is financing. Although the local government plans for further reforms in the collection, earmarking, and management of EUF as well as accessing other sources of funds, it is important to take the necessary actions now.

The project also has some lessons for national agencies and donors who are providing technical assistance to local governments for the development and implementation of environmental infrastructure improvements. The way forward is clear. As discussed in this paper, sanitation and environmental investment programs must involve more than just constructing new facilities, but must also include efforts to build institutional capacity, ensure funding for operation and maintenance, and keep momentum behind sanitation and waste management by mobilizing political champions and stakeholders in the various stages of the development and implementation of the project.

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