

Highlights of the discussion

The communication story of Estero de Paco

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This brown bag is part of a knowledge-sharing series that the DER Project Communication group regularly conducts for operations staff. Project leaders share practical strategies on how communication strategies can be effectively designed and used to engage stakeholders, change behavior, and mitigate risks - for better project results.

Speakers:

- Javier Coloma Brotons, Urban Development Specialist, SEUW; Project Officer of a Pilot Project to Improve Environmental Conditions of Estero de Paco
- Faizza Tanggol, former Media Manager, Kapit Bisig para sa Ilog Pasig Project
- Miko Alino, ABS-CBN, Lingkod Kapamilya Foundation

Project Background

- Estero de Paco is one of the 47 tributaries of the 27-kilometer long Pasig River, and the first to be rehabilitated by the Philippine government in 2009. The ADB project approved in 2012 followed up on efforts of the Pasig River Rehabilitation Commission (PRRC), the Executing Agency (EA), to improve the river's water quality which remained below Class C standards.

- The PRRC had already done substantial work in easement clearing, garbage removal, channel dredging, riverbanks stabilization and floating aerators operation. The Commission had also resettled more than 2,000 families to Calauan and Laguna provinces to facilitate the *estero's* rehabilitation.
- The project put forward another approach to improve the river's water quality standards: intercept pollutants before they get to the river using infrastructure and change people's behaviour to use the infrastructure and stop practices that pollute the river (i.e., direct discharge of wastes into the river, non-clearance of sludge, etc.). These were the interventions under the project implemented by various government agencies from 2012-2015:
 - Waste water treatment pilot
 - Flood gates management guidelines (Metro Manila Development Authority)
 - Interceptors and combined sewer management (Maynilad - local water provider)
 - Headwaters interception (MWSS and Manila Water - local service providers)
 - Solid waste management improvement (Local Government Unit)
 - Paco Market water and waste management (concession)
 - Stakeholder awareness, capacity building, institutional arrangement
- Total cost for infrastructure: US\$60 thousand; total cost for communication / stakeholder awareness: US\$50 thousand

Communication challenges and ADB's approach

- Clean-up and dredging activities along Pasig River and expensive schemes to aerate river water have not only proved unsustainable but also created new problems such as the build-up of sludge that required more dredging, and others. Interventions were largely concentrated on water treatment and not reducing the pollutants from untreated solid and liquid waste that go into the river.
- The different approach piloted by ADB focuses on the 3-kilometer Estero de Paco used sustainable technology and behaviour change communication activities to intercept pollutants **before** they get to the river through:
 - Treating water on site or connecting to the network

Majority of the households along the Estero de Paco treated the river as an open sewer and garbage pits discharging their wastes directly into the *estero*. Maynilad used to routinely remove the sludge every two years.

ADB helped build a low-cost condominal sewage system that treated water from 58 households (496 individuals) in Barnagay 672 which were served only by seven existing septic tanks. Household water is collected through a network of PVC pipes and manholes to a sump pit which temporarily stores the wastewater. Solar-powered submersible pumps then convey the wastewater into an anaerobic baffled reactor (ABR)—a septic tank capable of treating wastewater. Solid waste (i.e., grease, etc.) and sludge are removed by Maynilad monthly. From the ABR, the waste water is transferred to an artificial wasteland planted with vegetation that further treats the water before it is released back into the Estero de Paco.

- Sorting, recycling and collecting remaining waste

The local government did not regularly collect household wastes -- 90% of which were biodegradable while 23% could be recovered – because garbage trucks couldn't enter into the community since the alleys were too small. Due to the large quantities of wastes involved, garbage collectors found it too tedious to manually collect and carry them to and fro the trucks. Rather than wait for the irregular connection, household simply discharged their wastes into the river.

ADB helped pilot a solid waste management system by providing containers for the residents' easy disposal, and establishing collection, transfer and storage schedules and points for selected alleys. The routes and schedules of the LGU's garbage trucks were changed to thrice weekly to coordinate with the collection and transfer schedules points. Materials recovery facilities were established right in the community to encourage residents to bring recyclables, and in the Paco Market. A vermin-composting system was designed for organic wastes (including the Paco Market's) but this was not fully implemented as no agreements were forged with city parks which were supposed to receive the compost.

Segregating the wastes provided a resource-generating scheme from the sale of the recyclables (i.e., paper, metal, glass, etc.) – which were used to pay for the salaries of the garbage collectors. While the system worked to intercept waste being discharged directly into the river, wastes which have been carefully sorted in Estero de Paco were again mixed together after they were transferred to the LGU's trucks.

- Practicing good market management

Solid wastes from the Paco Market, located along the river, were not regularly collected, and simply dumped into the river. The septic tank from the fish section overflowed into the *estero*.

The project assisted the market's management to draft a new wastewater treatment plant design and collection system to improve its drainage and septic tank. Market concessionaires, however, opted to use a donated high-tech system that may prove to be less sustainable in the long term.

- Addressing the residents' resistance to pay for garbage collection and connection to the waste water treatment facility

Residents resisted paying the P100 monthly fee to sustain garbage collection and connect their household's plumbing to the improved combined sewer overflow (CSO), a cost-effective system designed for low-income areas.

- Although the Pasig River Rehabilitation Commission (PRRC) is tasked to oversee all rehabilitation programs along the Pasig River and all its tributaries, there are multiple stakeholders engaged in river-related operations making the institutional arrangements difficult and challenging

- government agencies and private utility companies tasked to oversee water and sewage administration, infrastructure maintenance and flood management, easement clearings and resettlement of urban poor households
- local government units involved in clean-up and improvement of water quality and solid waste and wastewater management
- civil society groups organizing and training the urban poor
- urban poor residents living along and near the *estero*
- Paco Market administration and market vendors

Communication approaches by various stakeholders

- ADB funded the communication activities of ABS-CBN Foundation and Manila Water to support the project's infrastructure component using community-based and multi-media information channels to raise awareness on:
 - Wastewater disposal and management
 - Solid waste management
 - Desludging of septic tanks
 - State of the Pasig River
- ABS-CBN Foundation used the following communication and social mobilization approaches :
 - **TV interstitials** – 60-second videos produced by an award-winning director, Brillante Mendoza, using the talents of ABS-CBN. While the ads maximized the appeal of celebrities to generate attention to the state of the Pasig River, they did not promote concrete behaviour changes, and there were no concrete calls to action. The interstitials were also produced without ADB's prior concurrence and were then only shown through social media.
 - **"Toka-Toka"** series – 30-second TV and radio plugs that challenged various stakeholders to change their behavior and name their stake to save the Estero de Paco ("This is my stake, what is yours?"). In one plug, for instance, Manila Water commits to treat water from sewer lines and drainage systems before releasing it back to the river, and then asks that household also commit to: proper disposal of garbage in bins and having septic tanks desludged every five years.
 - **Training and mobilization of River Warriors** – Trained on basic community organizing, River Warriors (a group of local volunteers) were crucial in the house-to-house campaign to promote behavior changes among residents particularly on the use of the project facilities (i.e., segregate waste, identify recyclables and bring them to the MRF, throw garbage in designated bins, pay the monthly connection fee). The volunteers also organized regular clean-up and de-clogging activities with residents and other stakeholders.
 - **Storybooks and household magazines** – River warriors used the storybooks for storytelling sessions with local children and the magazines to raise awareness about the importance of segregation among local women
 - **Run for the Pasig River** – Organized from 2009-2013, this activity sought to drum up wider external support for cleaning the Pasig River and generated funds to sustain the community's activities.
- The project also funded a street play to reinforce the behavioural messages and mural painting activities. The play, *Monster in the River*, was mounted in the community and a

local park, using mythology to explain to the residents of Barangays 671 and 736 the environmental and social effects of their disposal of wastes into the river. In the local vernacular, Tagalog, the play depicted a *diwata* (river nymph) whom residents used to believe guarded the river and allowed people to use the clean water until the pollution drove her away. In her stead, villagers reported sightings of a monster to whom they attributed the rising incidences of diseases and deaths. When the monster attacked some sick children, they tried to fight back by throwing garbage scattered around but it grew more until they realized that the monster was actually nourished by the wastes. They later discovered that the nymph and monster were one and the same, and to transform the *diwata* back, they needed to stop discharging their wastes into the river.

The mural painting activities were also done by residents of Barangays 671 and 736 to remind themselves of their responsibility and stake to have a cleaner and disease-free community.

- The project was turned over to local organizations, Kilusang Pang-Kapitbahay at Pangkabuhayan, Inc. and representatives of Barangay 672 in a MOU signing ceremony which also delineated the roles and responsibilities of key stakeholders in improving the environmental conditions of Estero de Paco

Communication lessons

- Infrastructure projects to improve water quality, however well-designed, will not be effective if people will not use them. Behavior change communication and social mobilization are crucial to the success of projects aiming for solid waste management, wastewater treatment and urban renewal.
- The Pasig River and Estero de Paco campaigns did not go through a strategic communication planning process that could have rationalized the format, channel and messaging of the campaign, better synchronized the communication activities of all stakeholders, and integrated sustainability mechanisms
 - While there was observed improvement in solid waste management practices, the communication campaign's effectiveness and impact could not be systematically assessed as no monitoring and evaluation framework was built into the campaign's design, and the communication activities were not informed by baseline research on audience behavior, stake, media habits to direct messages and justify the type, form and extent of communication approaches
- The improved individual and collective behavior on solid waste management can be attributed to the training and social mobilization of River Warriors who were absorbed by the PRRC and are now receiving regular salaries as "environmental aides" to sustain their activities
- ABS-CBN fully maximized its multi-media conglomerate (TV and cable: ABS-CBN and ABS-CBN News Channel; radio: DZMM and MDR 101.9 – AM and FM radio stations; its print sister companies; internet and social media networks) to give the project and the campaign full exposure. The downside to the arrangement, however, is the exclusivity accorded to ABS-CBN which excluded its rival networks and media organizations not affiliated to it – which could have given the campaign the widest possible mileage

- The communication campaigns of other government agencies, CSOs and private companies were not synchronized with ABS-CBN's which could have reinforced messaging, affected timing and covered more stakeholders