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ASEAN-NORWEGIAN COOPERATION PROJECT ON LOCAL CAPACITY BUILDING FOR REDUCING PLASTIC POLLUTION IN THE ASEAN REGION (ASEANO) 2020 – 2021

REPORT PRIMER

ASSESSING KNOWLEDGE, ATTITUDES AND PRACTICES CONCERNING PLASTIC WASTE AND THE ABILITY AND WILLINGNESS TO PAY FOR MEASURES TACKLING PLASTIC POLLUTION ALONG IMUS RIVER, CAVITE, PHILIPPINES

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Small boats moored beside riverside homes attest to the strong relationship between people and the Imus River, a river in Cavite which passes through Silang, Dasmariñas, Imus, Bacoor and Kawit. This study surveyed stakeholders in 14 selected barangays about what they thought of the river. **(PRF)**

Like many rapidly developing countries, the Philippines is grappling with the growing problem of plastic waste. According to the Global Alliance for Incinerator Alternatives (GAIA, 2019), the Philippines consumes 60 billion sachets, 48 million shopping bags and around 16.5 billion single-use *labo* bags yearly. Around 80% of plastic waste is distributed in over 1000 rivers, with the majority of waste flowing down small rivers in densely populated areas (Meijer, et al. 2021).

This study targeted communities along the **Imus River**, one of six major water sources in the province of Cavite, a rapidly-developing province south of Manila. This development comes at a price: insufficient waste management facilities have resulted in around 2000 tons of garbage being dumped into Cavite's rivers daily (DENR 2021).

De La Salle University Dasmariñas (DLSU-D) surveyed stakeholders in 14 selected barangays in the five cities or municipalities located along the Imus River: Silang, Dasmariñas, Imus, Bacoor and Kawit.

The study determined the stakeholders' knowledge, attitude and practices related to plastic pollution problems including the impact, management and the communities' reasons for using plastic products. It assessed the economic value of the river by identifying and analyzing economic benefits like employment, livelihood, plus goods and services derived from the river. Lastly, it determined the ability to pay and willingness to pay of the selected communities dependent on the river for people's daily needs. The study results are as follows:

(1) **The majority of respondents were aware of the negative effects of plastic pollution in the Imus River and their community as well as various government programs to rid rivers of waste**. Barangay officials are perceived as both knowledge sources and implementers of solutions to clean rivers.

(2) **Respondents generally have positive attitudes regarding conservation and mitigation efforts in the Imus River**. They agree that self-discipline, an individual's ability and motivation to practice proper waste management, is the solution to the waste problem, as plastic pollution is perceived to be environmentally harmful to their communities.

(3) **Respondents usually prefer sachets and single-use plastics**. Surveyed residents prefer small single-use plastics mostly out of necessity and convenience. Being more affordable, sachet-sized packets are perceived to have good value for money.

(4) **Respondents have ineffective waste segregation practices**. Surveyed residents rarely separate biodegradable from non-biodegradable wastes.

(5) **The attitude of respondents to conservation and pollution management is directly affected by their knowledge about the given issue**.

(6) **Except for some fisherfolk from Kawit, most respondents do not perceive the river as harboring useful economic benefits as it is thought to be polluted and dangerous for swimming, drinking and bathing.**

(7) **Respondents' ability to pay (ATP) ranged from PHP0 to PHP300,000 with a mean of PHP3266 per month**. For every peso increase in the monthly household's income, ATP increases by about PHP0.978. For every peso increase in the monthly household's expenses, ATP decreases by around PHP0.969.

(8) **For every unit increase in the amount of plastic waste generated, the amount that respondents are willing to pay increases by PHP2.756**.

Based on results, this study recommends the following:

(1) **Stronger Information, Education and Communication (IEC) initiatives**. Innovative and creative means of engaging and motivating local households to increase and consistently adopt pro-environmental practices should be developed. A critical review of existing programs and projects on waste management should be undertaken to determine if they are still appropriate or relevant in the present context of the barangays.

(2) **Better incentives**. Practical interventions like incentives or rewards may be instituted to generate interest while promoting environmental sustainability. Incentives may be given to households with small businesses that provide product refills, use alternative packaging and comply with waste management policies.

(3) **Stricter implementation and enforcement of solid waste management laws**. The lack of political will and consistent implementation of regulations by local officials and the lack of discipline for proper waste management in the community contribute to the weak enforcement of the laws. Barangay officials are mandated to strictly enforce ecological solid waste management policies, sanctioning all local violators.

(4) **More community involvement**. A strong volunteer program should be created to maintain and engage volunteers for continuous involvement in river clean-ups and other possible environmental programs.

(5) **Engage the private sector via Build Operate Transfer (BOT)**, a type of public-private partnership to enhance the province's Integrated Solid Waste Management System (ISWM) from collection, segregation to waste disposal. External partnerships should be sought for funding and technical assistance. Some projects may be linked to programs initiated by relevant government agencies like the Department of Trade and Industry (DTI) via its support for plastic waste management initiatives for World Consumer Rights Day (WCRD), plus the Department of Environment and Natural Resources (DENR) under the National Action Plan on Marine Litter.

ABOUT PROJECT ASEANO

East Asian countries produce over half of our world's marine plastic pollution. Rivers act like conveyor belts to discharge waste to the oceans.

To stem this flow, Project ASEANO is developing practical and sustainable measures to reduce the impacts of plastic pollution and their implications on both socioeconomic development and the environment.

The ASEAN – Norway local capacity development project is a three year project that aims to enhance local capacity on monitoring and understanding the source, flow and nature of riverine waste. It aims to strengthen local enforcement and provide practical solutions to tackle problems at the local level.

The project uses an integrated solid waste management approach and focuses on the city and municipal level through two pilot sites: the Citarum River in Indonesia and the Imus River in the Philippines. For more information, Email PEMSEA ASEANO Project Manager **Thomas Bell** at **TBell@pemsea.org** or download the **Full Study** at **pemsea.org**.