Supplementary Material A: Sample Survey Questionnaire for Contingent Valuation of Constructed Wetlands

Purpose of the survey: This survey aims to elicit the awareness of the community on the presence of constructed wetlands, the uses/benefits, ecosystem services, their willingness to pay for these services, as well as the opportunities and challenges for its replication in the Philippines and other countries.

Target audience: The target participants of the survey are the community members who benefit from the constructed wetlands as a nature-based solution to treat their domestic wastewater. Particularly, the participants should be the heads of the households of the community.

Description of the Instrument: The survey questionnaire is divided into five (5) sections, each of which aims to collect a different type of information. Before proceeding with the study, a brief summary of the study is provided. The participants will be asked to provide their informed consent to participate in the study in the first section of the questionnaire to meet the standards of ethical considerations.

The first section aims to collect information regarding the respondents' socioeconomic background as this may also reflect their willingness to pay. The second section ascertains the respondents' awareness of the presence of constructed wetlands in their community. The third section extracts information characterizing the ecosystem services offered by constructed wetlands. The fourth section asks the willingness to pay of the respondents for the ecosystem services of the constructed wetlands. The final section elicits the problems and success factors that the respondents believe to have a significant impact on the implementation of the constructed wetlands project.

The online version of the survey questionnaire can be found at the following link: https://forms.gle/8NmXDYW5iK22CSiz5
BAYAWAN CITY

Socio-Economic Survey for Wastewater Treatment using Constructed Wetlands (Nature-Based Solutions)

This survey is part of an international research project on Nature-Based Solution for Water Management consisting of countries such as Sri Lanka, Vietnam, Australia, and the Philippines.

The aim of this survey is to elicit the awareness of the community on the presence of constructed wetlands, their uses/benefits, ecosystem services they provide, willingness to pay, challenges, and opportunities for project replication in other parts of the Philippines and other countries.

Please answer this survey honestly. Rest assured that no person will be identified in the report writing as the data will be processed and analyzed for all respondents in the survey. All the information shared with us will be used solely for its intended purpose and treated with utmost confidentiality.

* Indicates required question

By proceeding to this survey, you agree and provide prior consent to use the information that will be collected and stored here for research undertaking of the researchers. Disclosure of personal data will not be done without notice and expressed consent of the respondents.

☐ Yes
☐ No

Next Clear form
Part 1. Socioeconomic Profile

1. Name/Nickname:
   Your answer

2. Age:
   Your answer

3. Sex:
   Your answer

4. Marital Status:
   - Single
   - Married
   - Widowed
   - Separated
   - Common law (Domestic partnership/Live-in)
5. Highest Educational Attainment:

- Elementary Undergraduate
- Elementary Graduate
- High School Undergraduate
- High School Graduate
- College Undergraduate
- College Graduate
- Vocational
- Post-graduate
- Other: _____________________________

8. Total monthly income of the household:

- Below 5,000
- Php 5,000 - 10,000
- Php 10,000 - 30,000
- Php 30,000 - 70,000
- Php 70,000 - 140,000
- Php 140,000 - 250,000
- Above Php 250,000

9. Cluster Number (e.g., Cluster 1) 

Your answer _____________________________
Part 2. Awareness on Constructed Wetland

2-1. Do you know what is a constructed wetland? *

- Yes
- No

2-2. Are you aware on the existence of a constructed wetland to treat your wastewater in the Gawad Kalinga Village? *

- Yes
- No
Part 3. Ecosystem Services offered by Constructed Wetlands (Beneplay)

Ecosystem services (ES) are the direct and indirect benefits of ecosystems to human well-being. Below are the four categories of ES and the identified benefits of constructed wetlands.

What are your motivations on answering the willingness to pay questions? (Check all that apply)

3-1. Provisioning Services

☐ Water supply
☐ Biomass
☐ Other: __________________________

3-2. Regulating Services

☐ Wastewater treatment
☐ Water purification
☐ Climate regulation
☐ Flood prevention
☐ Erosion control
☐ Other: __________________________
3-3. Supporting Services

- [ ] Habitat formation
- [ ] Nutrient cycling
- [ ] Hydrological cycle
- [ ] Other: ____________________________

3-4. Cultural Services

- [ ] Recreation
- [ ] Aesthetic
- [ ] Tourism
- [ ] Educational and research
- [ ] Other: ____________________________

Other services (benefits):

Your answer: ____________________________
Part 4. Willingness to pay

4-1. Are you willing to pay to continue the services provided by the constructed wetland?

☐ Yes

☐ No

4-2. What is/are your motivation/s for your non-willingness to pay for the service? (Check all that apply)

☐ Household’s budget constraint (non-affordability)

☐ Unsatisfactory performance of the CW

☐ There are other better solutions on the problem of wastewater treatment.

☐ Other: ___________________________

4-3. To continue the services provided by the constructed wetland, what is the range of your willingness to pay on a monthly basis?

Your answer  ___________________________
4-4. To continue the services provided by the constructed wetland, at what price would you consider the service to be so expensive that you would not consider availing/paying it? (Too expensive)

Your answer

4-5. To continue the services provided by the constructed wetland, at what price would you consider the service to be priced so low that you would think the quality won't be very good? (Too cheap)

Your answer
Part 5. Challenges in the Constructed Wetland

5-1. Did you encounter any problem in the constructed wetlands? (e.g., foul smell, flooding, not pleasing to the eye, etc.) If yes, please mention.

Your answer

5-2. Do you think the project will be sustainable in the long run? If not, what factors might affect its operation? (e.g., typhoon, flooding, storm surge, sea level rise, earthquake, public acceptance, change in policy, change in rates, overcrowding of the community, improper maintenance, mismanagement, etc.)

Your answer

5-3. Why do you think the CW project was successfully implemented in GK village (e.g., Government support, public acceptance/support, proper information and communication with the residents, promised benefits, good governance, consistent monitoring and evaluation of the project, strong international partnership, etc.)? (Check all that apply)

Your answer