

PONDS OF KOLKATA 2022 A SOCIAL AUDIT REPORT OF 7 WARDS

by Jaladarsha Collective
in Association with **Eco Hive Foundation.**



Painting by children in Behala, representing a dying fish in water

CONTENTS

I. Introduction	2
II. Water and Climate Change	5
III. Methodology	6
IV. Key Findings	8
V. The Emerging Issue: Garbage/Sewage	12
VII. List of Ponds Surveyed	20
VIII. We are Living Beings	24
IX. Acknowledgements	28

I. INTRODUCTION

“It only takes a second to make a paradigm shift,” states Kate Raworth, a pioneering economist of our times. Raworth has been talking about the need to think through economic models within the limits of our planetary boundaries. Raworth’s ‘doughnut economics’ advocates the need to put ecology at the center of all economic planning, i.e account for ecology and human wellbeing as critical to the aspects of growth. Many cities, globally, have now begun to use the ‘doughnut economic model’ when setting economic priorities.

It is pertinent for us to start this way for a report on Kolkata’s water bodies, a city facing the imminent reality of going under floods due to sea level rise, one that faced double disasters of a pandemic and cyclones, and a city constantly absorbing climate refugees from the Sunderban delta, which faced the worst wrath of three subsequent cyclones Bulbul, Amphan and Yass over the last three years from 2019 to 2020. Yet, when one looks around, urban planning, transport planning, housing construction activities seem to carry on as if it is “business as usual”. Particularly ironic is the fact that the city’s real estate and builder lobby simply circumvents pre-existing laws that already protect our water bodies. There has been no monitoring of smaller water bodies, and google satellite images across three time periods from 1990 to 2000 to 2020, show a sharp decline in the blue-dot surfaces.

This shift led us to survey water bodies on foot. To understand what the local communities living around them are saying, how are they being maintained and what are the critical reasons for their decline.

1.1 The problem of solid waste management

An overarching reality that emerged was that the city lacks an organized solid waste management system. The city has seen a ‘zero waste’ movement for the last ten to twenty years in the past, and in 2000, there were clear laws¹ put in place for waste management post this period. Despite this, the city has not been able to meet the ideal goals of solid waste management.

Municipal waste has particularly been a problem in the maintenance of water bodies. The overcrowding has resulted in extra waste. While on the one hand piling up and rotting waste can create the hazard of buildup of methane, the quick disposal of waste into water bodies clogs up all water channels leading to floods. Plastic waste has been the biggest problem for Kolkata. Household segregation of waste into plastics and wet waste is implemented in only small pockets, but a wider implementation plan is required for improved waste segregation at the household level. While plastic wastes should be sent for recycling, biodegradable wastes need to be collected by municipal trucks and then sent to waste composting sites. The actual implementation of ensuring the travel of waste from the household to the processing facility is missing. There have been no plans for sanitary landfills in the city or proper composting plans for biodegradable wastes. As a result, waste is littered all over the city and mostly gets dumped into wetlands, lakes, ponds, and rivers in the city. This is dangerous as it finally pollutes our freshwater sources, a critical natural resource for us.²

¹ <https://www.cpnr.in/wp-content/uploads/2012/10/Waste-Regulation-in-India-An-Overview-Bernard.pdf>

² Jaladarsha YouTube: An interview with Sasanka Dev on Waste Management

1.2 Prevent conversion of water to land

Converting large numbers of ponds to land by filling them up has been the second major problem that has been threatening all water bodies. In several of the wards we visited, communities informed us of the patterns of corruption. These included converting records which show water bodies to only show land, so builders may build without problems. Converting water bodies into landfills of waste by dumping waste at night. Posing life threats to community members who may have complained against such encroachment. Almost all the ponds surveyed had sewage outlets draining into them. There is no treatment of this sewage. Often this sewage is hazardous for fish and plants and monitoring is not done. Water bodies are sometimes linked to each other through a network of channels. Water hyacinth menace and waste dumping may clog one part of these networks, which then affect the entire area together. There is no clear updated information available on water bodies or a monitoring mechanism on the same.

1.3 WASH and water

A large majority of Kolkata's urban poor continue to depend on temporary water connections, popularly known as '*time Kol*'. *Time Kol* ironically suggests how water availability is timed and measured out in small quantities. Thus, for most of Kolkata's urban poor, it is these ponds or waterbody commons that provide ample water for bathing, washing and cooking. Invariably these have a popular shrine or goddess placed next to the waterbody to indicate the sacred importance of the waterbody for the community. On some of the visits to these sites, one found different folk deities like 'Raksha Kali' or the goddess of epidemics. The placement of the goddess next to the waterbody is not a surprise, since many of us saw how, during the pandemic, there were several instructions on constant washing of hands. Water was the most important resource then to restrain the spread of disease.

1.4 Water bodies are a source of food

It is postulated that with the increase in tap water connections, people's natural connection to water bodies has reduced. However, the water bodies play key critical functions such as being a source of food, both fish and green leafy vegetables. Our study shows that almost 50% of the water bodies, despite being dumped with garbage and waste water, are still being used for bathing, washing and cooking purposes among urban poor. This had its own pitfalls. The younger generation complained of skin diseases from the water, young women, and girls though, have increasingly stopped using water bodies, if they have a choice.

The fishing community of Kolkata is central to its history and identity. The fishing community continues to play the most critical role in the cleaning, maintenance and looking after of all water bodies. In almost all the areas in Behala, in the south eastern side of Kolkata, people mentioned how a clean water body indicated continued fishing practice. The community carries critical understanding on the condition of the fish, which fish can clean up the pond, how to tackle water issues and how to bring about ecological balance in a lake. In places where fishing practice has reduced, water bodies have fallen into neglect.

1.5 Poor Grievance Redressal Mechanism

On more occasions than one, several citizens called us up as we were doing the survey, to 'act' on reviving ponds in their neighborhoods. We found that they were confused about whom to address

for complaints.. Is it the councilor? Is it the police? Is it the Pollution Control Board? On several occasions they complained that no follow up action was taken despite complaints. A proper grievance redressal mechanism needs to be put in place for citizens to report to the KMC. The KMC should act on these grievances within a specified time period. On some occasions local councilors shared that they clean up water bodies only to find it dirty again. A proper community awareness drive is needed in every neighborhood, so that the freshwater bodies are kept clean.

II. Water and Climate Change

Water is the primary medium through which we will feel the effects of climate change. Climate change impacts are mostly felt through changing hydrological conditions including changes in snow and ice dynamics. (United Nations, 2020) Climate change will affect all aspects of the water cycle and the consequences and impacts of the same will be dependent on when and where they occur and the exposure and vulnerability of populations and ecosystems. This impact will particularly fall on freshwater systems, which will not look like what they were in the past. (OECD, 2013). Almost all ecosystems will be under threat due to climate change. However freshwater systems and flows will undergo maximum threat and species surviving in freshwater systems will be the most threatened. Some of the expected changes in freshwater systems are³:

1. In coastal regions, sea level rise will result in increased salinization of groundwater systems and reduce the availability of fresh water supplies.
2. There will be a change in water availability during warm and dry periods. Melting of glacial and snow caps with warming climates will affect the flows and streams in rivers and change the usual seasonal flow of water.
3. Higher temperatures in water will lead to a higher number of pathogen and microbial activity, algal blooms and dissolved organic carbon. This will affect water quality and in turn the health of all species depend on it. Places with increased precipitation may find cooler water bodies with larger masses of water though.
4. Increased evapotranspiration and changes in precipitation will affect groundwater recharge rates.

2.1 Kolkata and Climate Change Impacts

Some of the predicted climate change impacts for Kolkata are as follows:

1. **Sea level rise:** Kolkata is about 170km away from the sea. There is an alarming rate of sea level rise along the Bay of Bengal Ocean due to warming caused by El Nino factors. Thus, waters of the Bay of Bengal have been rising up to twice as fast as the global average at about 4.4 – 6.3mm/year.
2. **Rising temperatures:** Kolkata has recorded a steady rise in temperature of 1.2 degrees Celsius. This is higher than the average global temperature rises of most megacities in the world. It is the highest in India. This part of the world is steadily warming up faster than the other parts.
3. **Increased humidity:** Heat will change precipitation levels and this will result in flooding in the city.

2.2 Water bodies in Kolkata: A gift

Waterbodies, wetlands, and canals are Kolkata's gifts, which may help to adapt to the situation.

1. They can reduce micro climate temperatures as heat increases and provide open spaces for green and blue buffer zones within a neighborhood or ward
2. They are good channels to absorb flooding
3. They are good sources of fresh water and water security for urban poor populations
4. They are biodiversity hotspots critical for our future survival

3

Given these ecological limits, there is thus an urgent need to look at how to preserve these freshwater sources, help them to regenerate groundwater recharge and look at them as important resources for the future.

III. Social Audit Methodology

Jaladarsha Collective decided to walk in different wards of the city and locate waterbodies and speak to those who live around them. An online call for volunteers was made, and several young people came forward to participate in these walks. These findings have been put together mostly by these young surveyors.

While a lot of studies, articles and research pieces are pointing out the alarming rate at which waterbodies are disappearing in the city, very little on the ground data was available. We found that most studies were conducted through GIS mapping, projections and checking the comparative shifts in surface water over time. All these maps clearly show shrinking of water- bodies. Many of the studies recommend that the KMC should keep a listing of all waterbodies in the city and maintain a water body surveillance record with regular monitoring of the same. However, this water body information management system is yet to be put in place, and no clear systems are in place to report on, monitor and conserve waterbodies in the city.

The data on ponds on the KMC website needs to be updated regularly and organized in a manner which may be used publicly. Currently, the data requires to be classified properly. While we used this as a point of reference, we found it to be incorrect and inaccurate in many places when verifying on the ground. We thus do not have a clear count of the number of water bodies in the city. This has varied in different reports and research studies.

We completed this exercise in 7 wards, covering more than 50 percent of total water bodies in each ward.

These assessments were not with scientific testing kits but simply scales used to look at the degree to which a waterbody was smelly or dirty, whether it was being used or not and for what purpose, and the degree to which other life systems thrived on it. Likert scale was used for some of these questions and yes/no answers were used for those where we were asking if there was presence of other aquatic or bird life or whether action was being taken or not. Several pictures were also taken to give evidence of the situation.

Total Wards Surveyed: 7
Total Water Bodies found: 211

3.1 Statistical Note:

Internal Consistency

Given the possibility of existing heterogeneity when it comes to the aspect of Likert scale questions, Cronbach's alpha is most used when one wants to assess the internal consistency of a questionnaire (or survey) that is made up of multiple Likert-type scales and items. In other words, the reliability of any given measurement refers to the extent to which it is a consistent measure of a concept, and Cronbach's alpha is one way of measuring the strength of that consistency. Cronbach's alpha is computed by correlating the score for each scale item with the total score for

each observation (here, individual survey of each water body), and then comparing that to the variance for all individual item scores. Conducting a similar exercise on our data, it has been observed that the Cronbach's alpha coefficient is 87.43%, which to our understanding, means that our scales and items are internally consistent.

Methodology for calculating the indices

The data collected can be classified into two components and the indices for both are constructed subsequently.

1. Water Score – Four Likert scale responses, where 1 signifies “very good” and 5 signifies “very poor”, were available regarding the quality of water for each water body. The individual scores are combined to create a standardized score out of 5. This score is henceforth referred to as the “Water Score”.
2. Reversed Eligibility Score – Ten binary responses eliciting the presence or performance of each water body are collected, where 0 signifies “No” and 1 signifies “Yes”. These variables are combined to find the proportion of each variable in each ward. Relevant standardization is performed to create a score out of 5, henceforth referred to as “Reversed Eligibility Score”.
3. Total Score – As relevant standardization has been performed on both the scores for comparability, they are clubbed together to create a score out of 5. To our knowledge, this score, henceforth referred to as “Total Score.”

Using the methodology mentioned above to calculate the individual ward scores, the following tables elucidate the particularly poor performing wards in red. The poor performance categorization is based on whether the ward score is greater than the total average score across wards.

IV. Key Findings

4.1 Selection of wards

The collective chose to survey the south eastern wards of Kolkata where there has been sudden expansion or urbanization. This has been compared with two urban wards, ward 67 and ward 92. Ward 67 is a rapidly changing ward, where several complaints in the community are present for illegal encroachment of water bodies. There are surrounding wards which are facing a similar situation. Ward 92 does have some proactive community groups, but this has been insignificant in terms of improving the actual condition of the water bodies remaining in the ward.

4.2 Overall Ward Wise Rank

The overall condition of water bodies is not satisfactory as per the scale. Ward 67, 92 and 127 are in the worst condition.

Ward	No of water bodies surveyed	Average of Total Score
67	41	2.63
92	22	2.86
116	11	2.16
121	22	2.16
122	25	2.23
126	24	1.92
127	66	2.43
Grand Total	211	2.39

4.3 Degree of Use by Community

Ward	No of water bodies surveyed	Average of Total Score	Eligibility for bathing	Eligibility for fishing
67	41	3.12	41%	20%
92	22	3.22	27%	9%
116	11	2.11	64%	64%
121	22	1.97	68%	68%
122	25	2.21	60%	60%
126	24	1.72	79%	79%
127	66	2.55	50%	52%
Grand Total	211	2.51	53%	47%

It was found that though Ward 127 had a poor ranking, it had a much higher use for both fishing and bathing in comparison to Ward 92 and Ward 67. In the case of Ward 67, a similar trend is seen in terms of bathing, this points to the need to explore several questions around access to water, availability of water, water quality testing and other WASH concerns for communities living in these two wards. When compared with two other factors such as recreation and swimming only, the ranking of all the wards shoots up to an average score of above 3 showing that none of these are in a condition of wellbeing, where citizens find them as aesthetic places to spend their time.

4.4 Emerging issues

Unlike popularly held myths that increased usage by community or presence of bio-diverse life makes water bodies dirty, when both these factors were removed from the score the status remained the same. This shows that there is some other factor that is creating the problem.

Table 1. Score indices of the wards (accounting for “Cooking and Drinking Water Eligibility” and components of “Ecosystem Eligibility”)

Ward	No of water bodies surveyed	Average of Water Score	Average of Reversed Eligibility Score	Average of Total Score
67	41	2.77	2.50	2.63
92	22	2.36	3.36	2.86
116	11	2.41	1.91	2.16
121	22	2.34	1.98	2.16
122	25	2.41	2.04	2.23
126	24	2.40	1.44	1.92
127	66	2.65	2.20	2.43
Grand Total	211	2.54	2.24	2.39

Table 2. Score indices of the wards (without accounting for “Cooking and Drinking Water Eligibility” and components of “Ecosystem Eligibility”)

Ward	No of water bodies surveyed	Average of Water Score	Average of Reversed Eligibility Score	Average of Total Score
67	41	2.77	3.75	3.26
92	22	2.36	4.26	3.31
116	11	2.41	2.27	2.34
121	22	2.34	2.44	2.39
122	25	2.41	2.60	2.51
126	24	2.40	1.04	1.72
127	66	2.65	3.01	2.83

Grand Total	211	2.54	2.91	2.73
--------------------	------------	-------------	-------------	-------------

Additionally, the score indices for “Water Score” and “Total Score” are calculated again, by classifying according to whether the water body surveyed is managed by KMC or not. The following tables illustrate the same:

Table 3. Score indices of the wards classified by whether managed by KMC or not
(accounting for “Cooking and Drinking Water Eligibility” and components of “Ecosystem Eligibility)

Ward	No of water bodies surveyed	Average of Water Score		Average of Reversed Eligibility Score	Average of Total Score	
		Managed by KMC	Not managed by KMC		Managed by KMC	Not managed by KMC
67	41	1.58	2.97	2.50	2.04	2.74
92	22	2.30	2.40	3.36	2.83	2.88
116	11	1.93	3.25	1.91	1.92	2.58
121	22	1.95	3.18	1.98	1.96	2.58
122	25	1.93	3.13	2.04	1.99	2.58
126	24	2.08	3.60	1.44	1.76	2.52
Grand Total	211	2.00	2.99	2.24	2.12	2.61

Table 4. Score indices of the wards classified by whether managed by KMC or not
(without accounting for “Cooking and Drinking Water Eligibility” and components of “Ecosystem Eligibility)

Ward	No of water bodies surveyed	Average of Water Score		Average of Reversed Eligibility Score	Average of Total Score	
		Managed by KMC	Not managed by KMC		Managed by KMC	Not managed by KMC
67	41	1.58	2.97	3.75	2.67	3.36
92	22	2.30	2.40	4.26	3.28	3.33
116	11	1.93	3.25	2.27	2.10	2.76
121	22	1.95	3.18	2.44	2.20	2.81
122	25	1.93	3.13	2.60	2.27	2.86
126	24	2.08	3.60	1.04	1.56	2.32

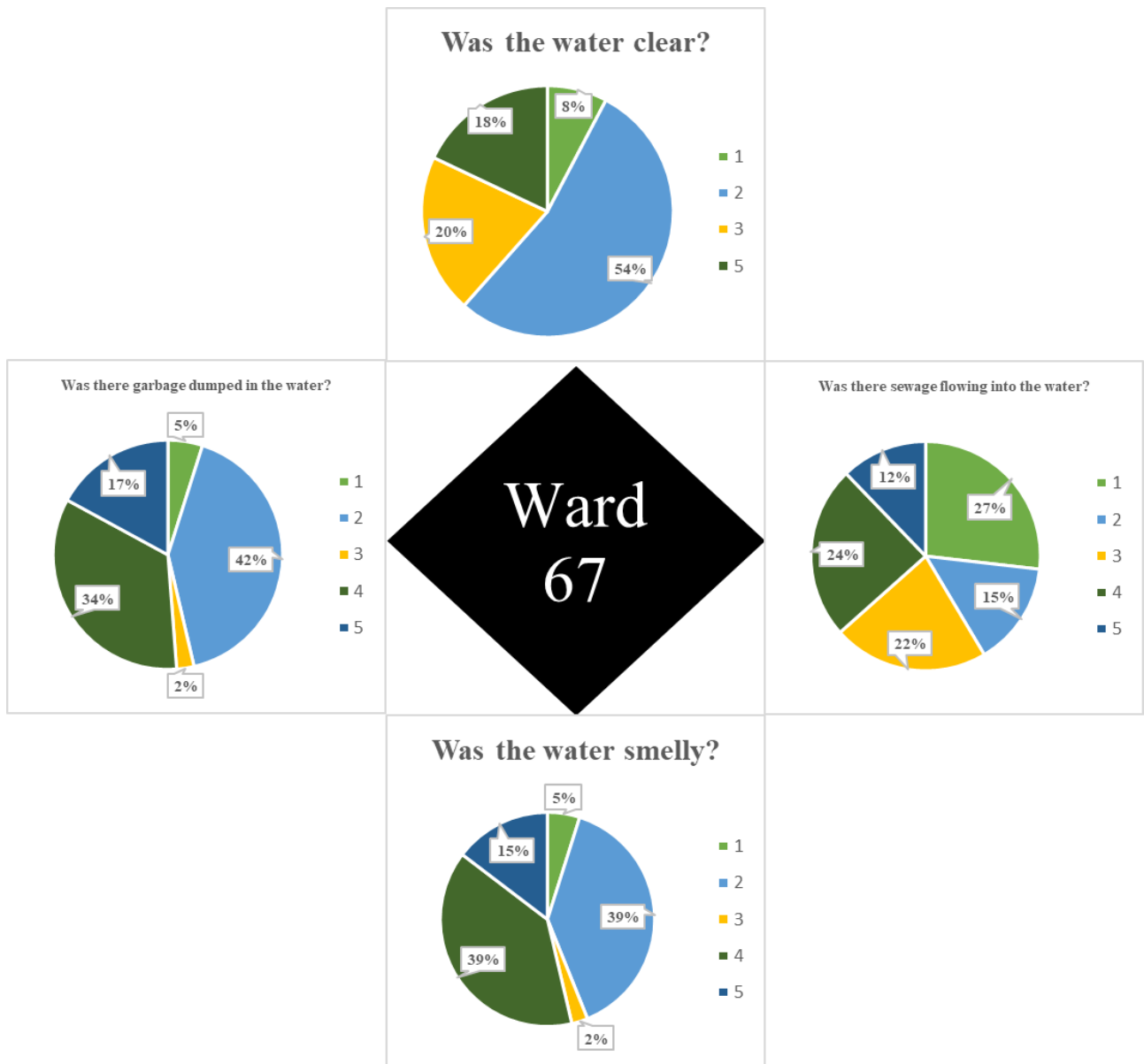
Grand Total	145	2.00	2.99	2.91	2.46	2.95
--------------------	------------	-------------	-------------	-------------	-------------	-------------

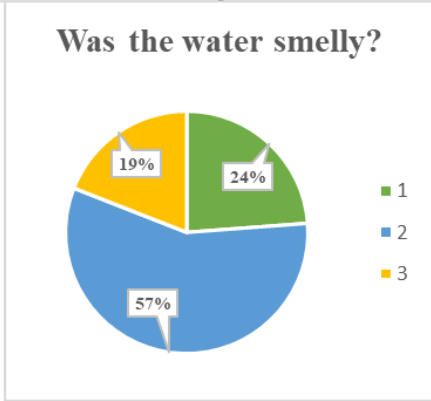
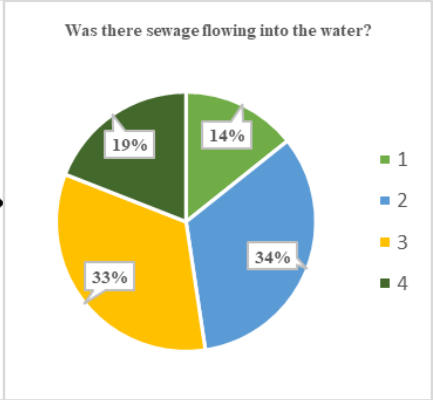
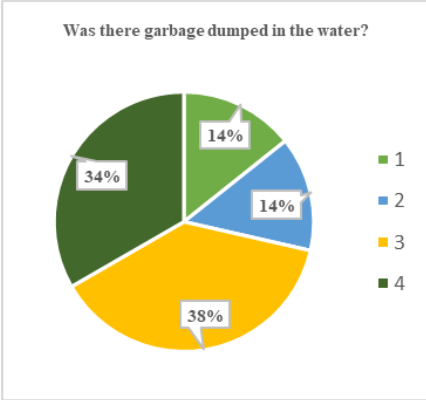
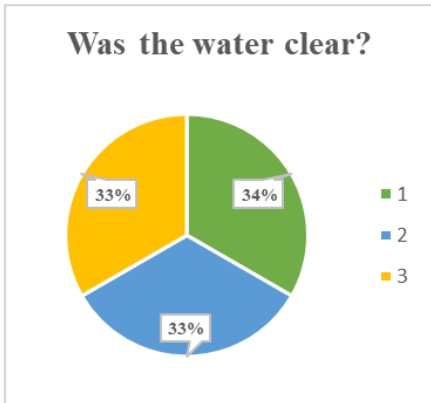
The rankings automatically go up as we assess against management by KMC or by community. On the whole the observations showed that water bodies are not being managed properly across the wards. Here managed by KMC or not does not look at ownership issues, but more at whether in that time of survey KMC had conducted any cleanup of the area or not.

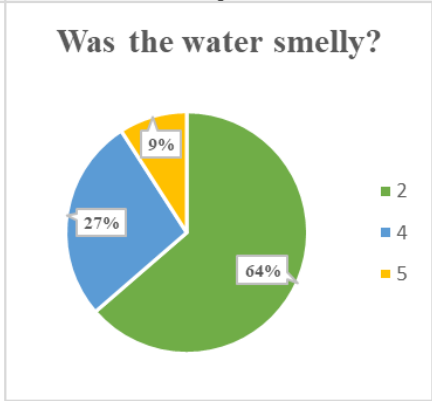
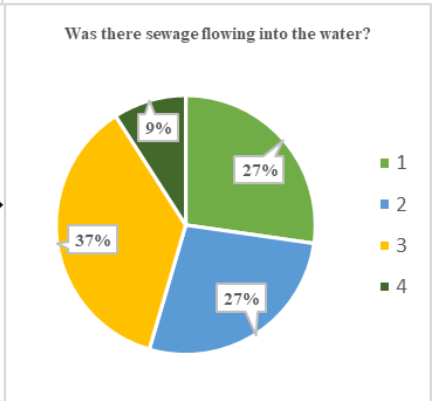
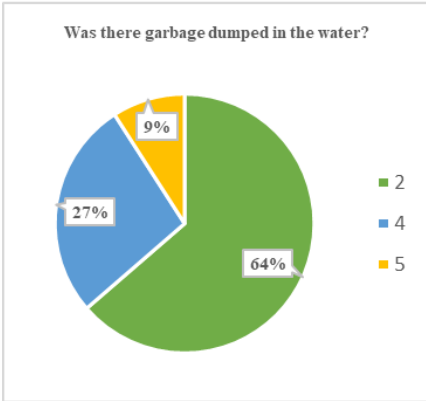
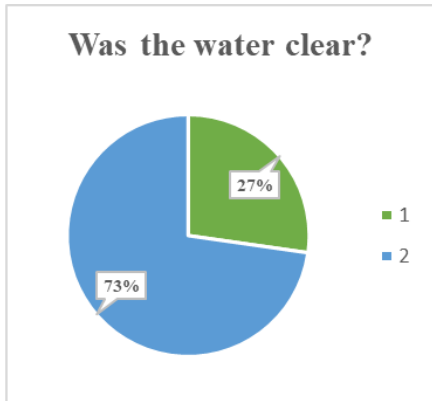
The other major contributing factor was found in the questions on garbage dumping and sewage treatment. This is seen in the subsequent sections.

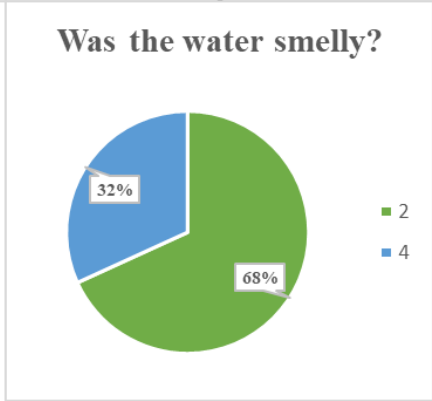
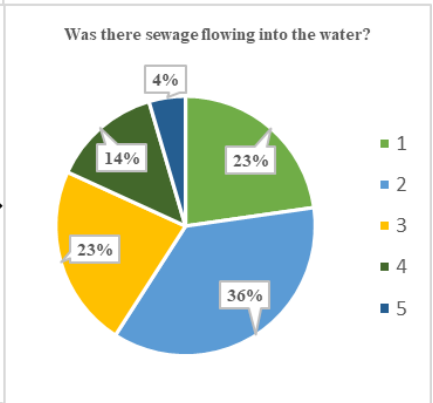
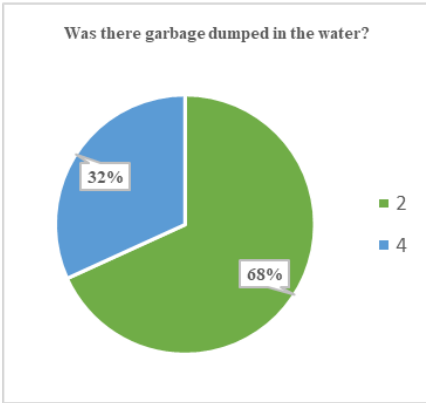
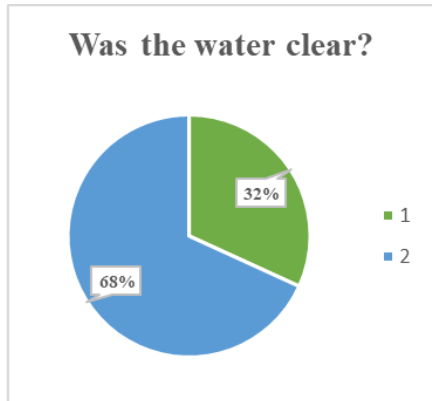
V. The Emerging Issue: Garbage/Sewage

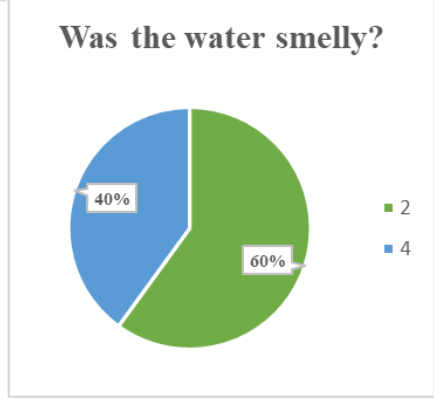
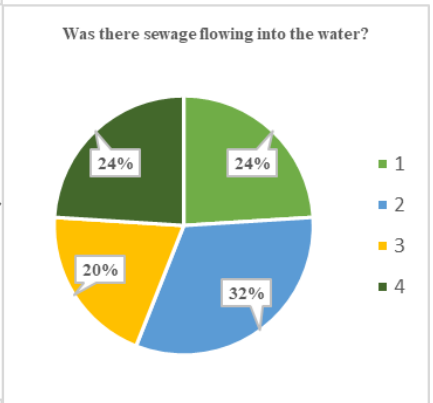
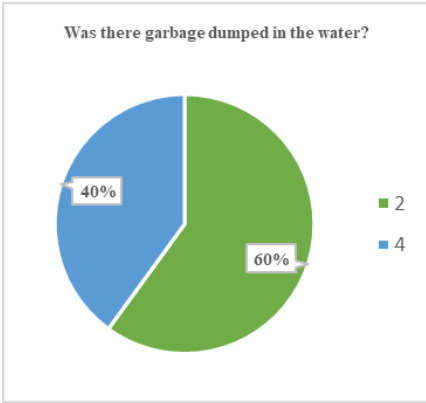
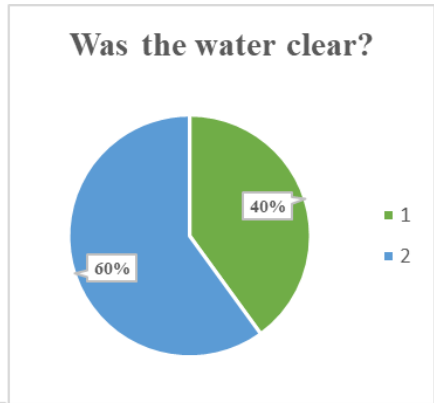
The following pie charts gives us the percentage of water bodies falling on each part of the Likert Scale for the three specific questions such as was the water smelly or dirty, was there garbage dumped in the water, was there sewage flowing into the pond. The Likert Scale ranging 1 to 5 moved from Very Good at 1 to Very Poor at 5.

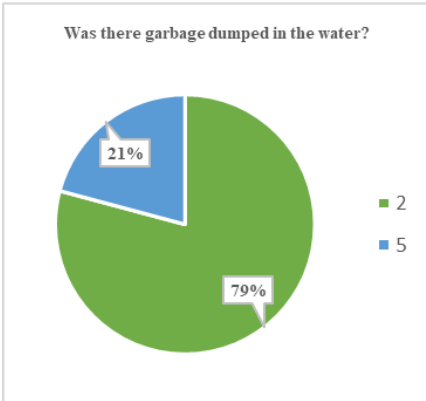
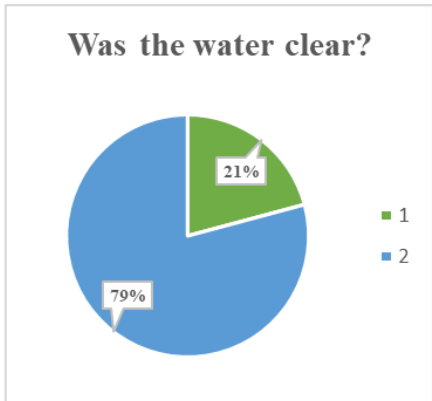




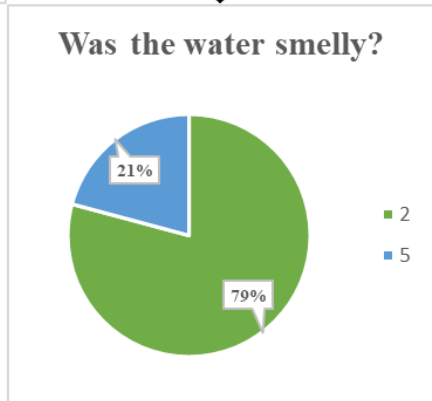
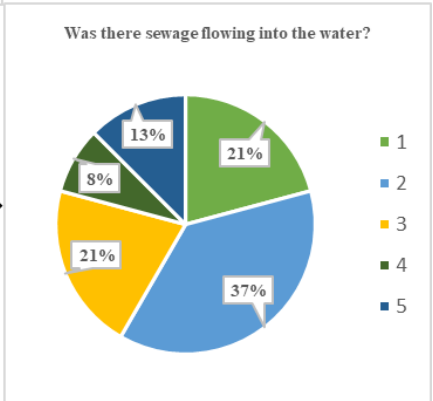


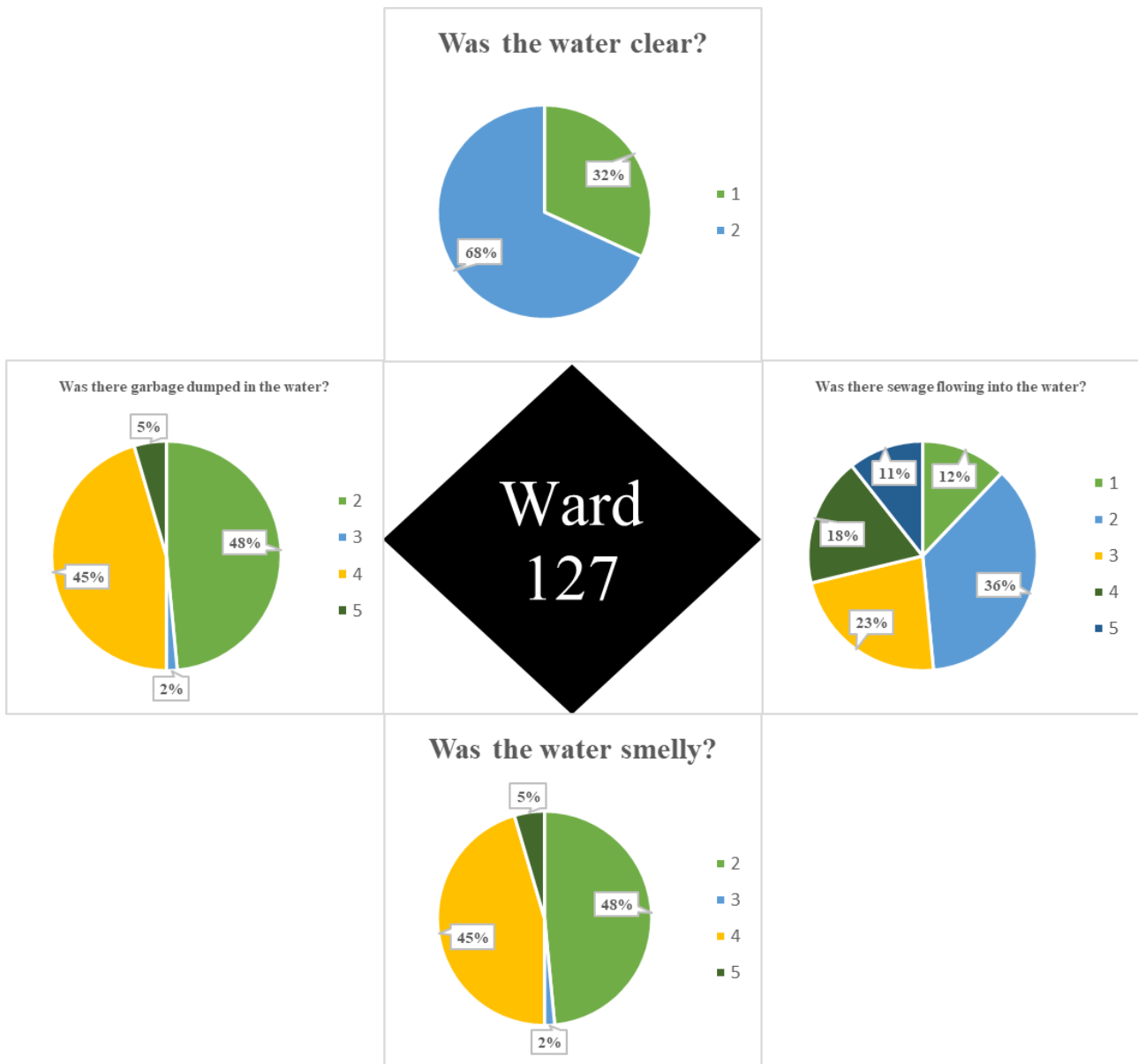






**Ward
126**





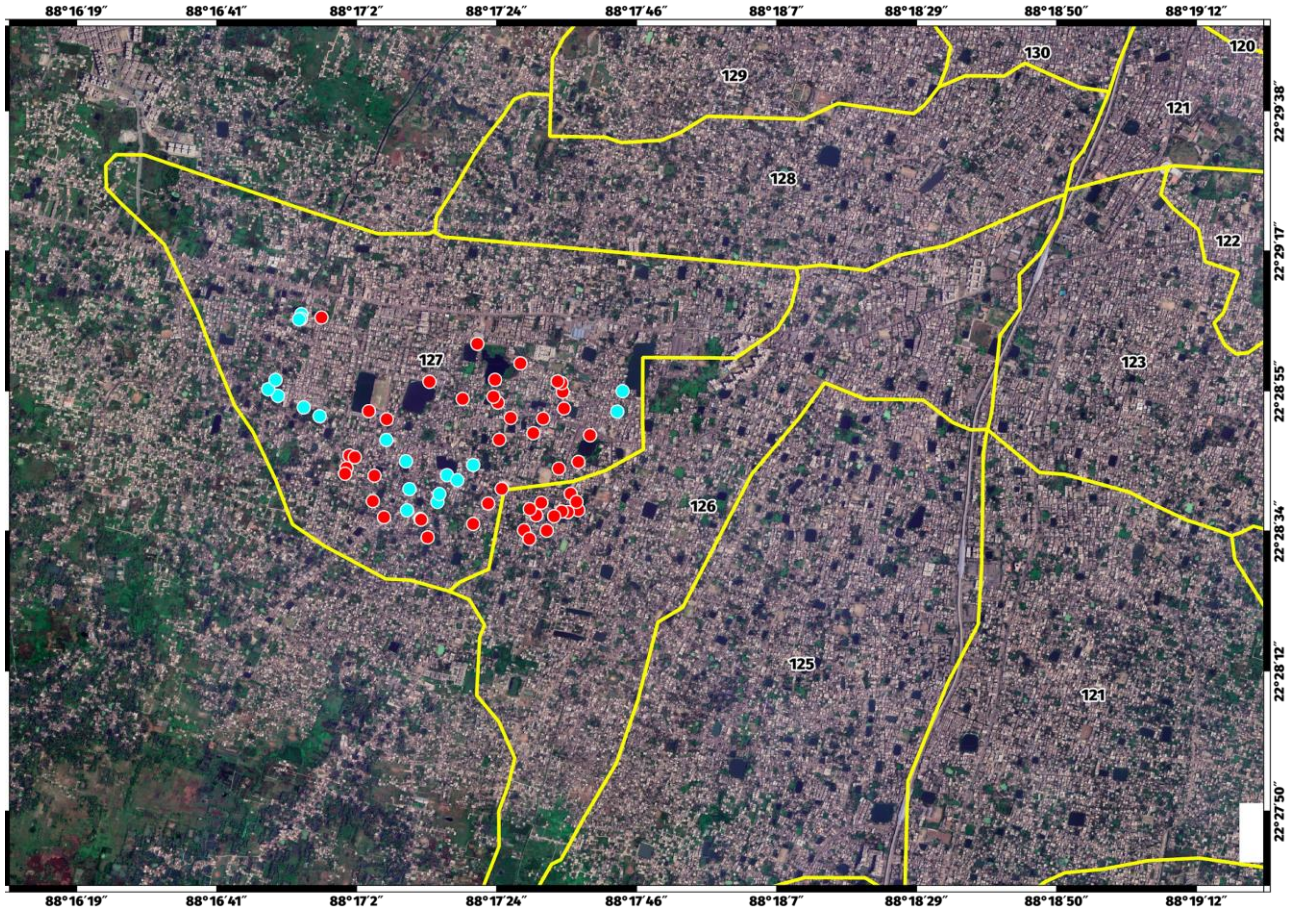
In the segregated grading of water bodies we have found that while aggregate score rankings were good for some wards, they received very poor ratings of 5, 4, 3 for these questions. Clearly showing how sewage and solid waste management are the key problems.

5.1 This pond shall never be clean!

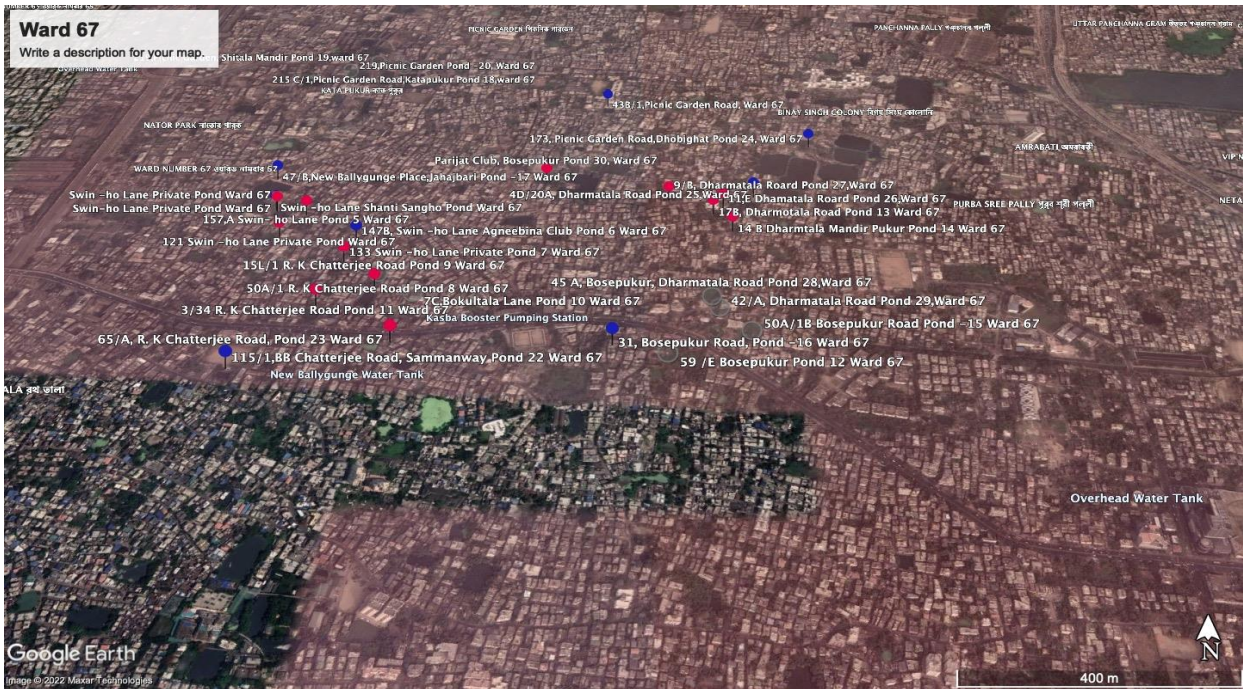
In one of the attempts to clean up a pond, Shyamanandapally, Ward 127, the community mentioned that the pond shall never be clean. While authorities complained that every time they clean it, the community dirties it, the community mentioned that no one has ever succeeded in cleaning the pond. We finally realized that one of the largest drains carrying all the dirt from the rest of the area flows into the pond. Unless a sluice or filtering system is instituted in the main drain, the pond would remain dirty. The infrastructural cost was too high for the community or even non-governmental and voluntary organizations to bear. So sometimes the solution does not rest with the communities but at a larger level.

VI. Maps

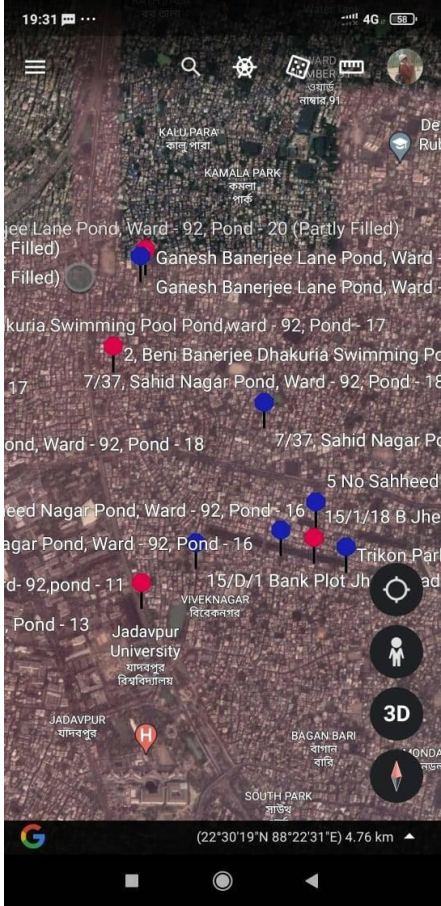
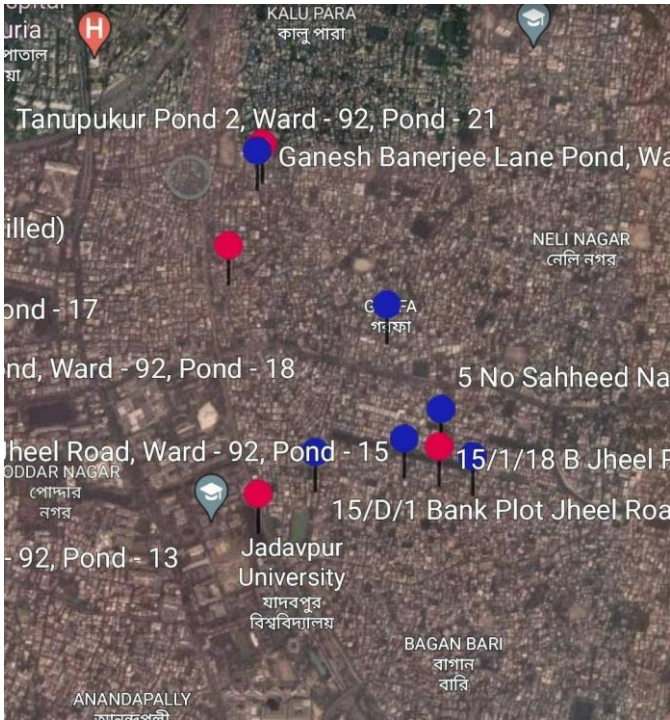
The following maps show the markings from the three worst wards. Ward 127, Ward 67, and Ward 92. The markings in red show neglected water bodies and those in blue show healthy water bodies.



The condition of water bodies in Ward 127. Ward 127 is the area around Sarsuna, where the oldest fishing communities of Kolkata live. The ward has recently been facing very rapid urbanization processes.



Ward 67 and Ward 92 had very few healthy ponds. Communities are scared to complain about encroachment in Ward 67. Neighboring the East Kolkata Wetlands, the area has recently seen massive booms in unplanned building development, poor drainage systems. Ward 92 also had many ponds in a decrepit state, here too in areas around Jheel Road, urbanization is eating into water bodies and canals.



VII. List of Ponds Surveyed

All the ponds surveyed in 7 Wards are as follows:

Name of Ponds	Ward No.	Name of Ponds	Ward No.
Bediadanga Pond 1	67	Kalowar Pond	122
Bediadanga Pond 2	67	Bose Family Pond	122
Mosjidbari byl ane Pond 1	67	Private Family Pond	122
Mosjidbari lane Pond 2	67	Dakkhin Para Private Pond	122
Mosjidbari by lane Pond 3	67	Ideal Ground Pond	122
186, Picnic Garden Pond	67	Brickfield Road Doba Pond	122
152/1 Picnic Garden (Trishakti)	67	Colony Pond 2	122
173, Picnic Garden in front of Ramtekari Gate	67	Colony Pond 3	122
Bionoy Singh Pond, Ramtekari Pond 2	67	Dhopa Para Pond	122
Ramtekari Gate Pond 3	67	Dhopa Para Pond 2	122
Ramtekari Dhopar-math Pond	67	Sodepur Kalitala Pond	122
50/3d Dharmatala Road Pond	67	Sarsuna Youth Club Pond	126
Swinehoe lane Santi Sangha Pond	67	Young Star Club Pond	126
Swinehoe lane Private Pond 1	67	Talpukur Sekh Allauddin Pond	126
Swinehoe lane Private Pond 2	67	1 No Jheel	126
121 Swinehoe lane Private Pond	67	2 No Jheel	126
157, A Swinehoe lane Pond	67	Khan Mohammed Para Pond	126
147 B, Swinehoe lane Agniabeena Club Pond	67	Kabiraaj Para Pond	126
133, Swinehoe lane Private Pond	67	Boddi Mollah Pond	126
50A/1, R.K Chatterjee Road Pond	67	Kabiraaj Para Private Pond	126
59/E, Bosepukur Pond	67	land's Math Pond	126
17B, Dharmatala Road Pond	67	Kalyan Nagar Jheel	126
14B, Dharmatala Mandir Pond	67	Taal Pukur	126
50A/1B Bosepukur Road Pond	67	Douglas Ground Pond	126
31, Bosepukur Road Pond	67	Chandi-Mandir Pond	126
47/B, New Ballygunge Place, Jahaj Bari Pond	67	Mejobaari Pond	126
215C/1, Picnic Garden Kantapukur Pond	67	SabarnaPara Private Pond	126
219, Picnic Garden Sitala Mandir Pond	67	Kishore Sangha Pond	126
219 Picnic Garden Pond	67	Sabarna Para Private Pond 2	126
43B/1, Picnic Garden Road Pond	67	Shmashan Kalitala Pond	126
115/1, B.B Chatterjee Road,Samanway Pond	67	Harisabha Pond	126

65/A, R.K Chatterjee Road Pond	67	Barisha Youth Club Pond	126
173, Picnic Garden Road, Dhobighat Pond	67	Battala South Behala Pond	126
4D/20A, Dharmatala Road Pond	67	Bat tala Private Pond	126
11E, Dharmatala Road Pond	67	Dutt-er Maath Pond	126
9/B, Dharmatala Road Pond	67	Supermarket Pond	127
45A, Bose Pukur Dharmatala Road Pond	67	Chatterjee Para Pond 1	127
42/A Dharmatala Road Pond	67	6 Mandir Pond	127
Parijat club, Bosepukur Pond	67	AatBaari Pond	127
7c, Bakultala lane Pond	67	78/1, Chatterjee Para Pond 2	127
3/34,R.K Chatterjee Road Pond	67	Chatterjee Para Pond 3	127
Jdavpur university pond 3	92	Sarsuna 3 No Jheel	127
Green Zone Pond,JU	92	Subedi Sangha Pond	127
JU 4no Gate Jheel	92	Sarsuna 2 No Jheel	127
APC Pond	92	Kartik Nagar Colony Pond	127
Ganguly Pond	92	Sarsuna 1 No Jheel	127
Ashim Mather Pond	92	Sarsuna Kathgola Pond 1	127
Dhakuria Swimming Association Pond	92	Sarsuna Kathgola Pond 2	127
NK Paul Pond	92	Sarsuna Kathgola Pond 3	127
Newland Society Pond	92	Sarsuna Kathgola Pond 4	127
Bibek Nagar Jheel	92	Sarsuna Kathgola Pond 5	127
Bibek Nagar Bank Plot Pond	92	BaroBagan Samiti Pond 1	127
15/D/1 Bank plot Pond	92	BaroBagan Samiti Pond 2	127
11/R jheel road Pond	92	BaroBagan Panchanan Mandir Pond	127
Trikon park jheel road Pond	92	Sonamukhi Pond	127
15/1/18B jheel road Pond	92	12/J, Rakkhitpara Pond	127
15/1/10 jheel road Pond	92	Rakkhitpara Pond 2	127
5no. Shaheed nagar Pond	92	69, Ramgopaal Pal Road Pond	127
2 Beni Banerjee Avenue Dhakuria Swimming Pool Pond	92	Ramgopaal Pal Road Pond 2	127
7/37 Shaheed nagar Pond	92	55, Banerjee Para Road Pond 1	127
Tanupukur Dhakuria Pond	92	Banerjee Para Maath Pond 2	127
Ganesh Banerjee lane Pond	92	16/1, Jadav Ghosh Road Pond	127
Tanu Pond 2	92	16/E, Jadav Ghosh Road Pond	127
Senhaati Pond	116	249D, Jadav Ghosh Road Pond	127
Senhaati Jheel	116	277/B, Jadav Ghosh Road Pond	127
Senhaati Pond 2	116	Shyamananda Pally Pond	127

Chanditala Pond	116	Banerjee Para By lane Pond	127
Chanditala Rice-Mill Pond	116	100/2/B, Banerjee Para Pond	127
Chanditala Jubak Sangha Pond	116	Banerjee Para By lane Pond	127
Chanditala Udayan Sangha Pond	116	Banerjee Para Pond	127
Siriti Kalitala Pond	116	Banerjee Para Sheetala Mandir Pond	127
Chanditala Company Pond	116	Banerjee Para By Lane Pond	127
Goyla Para Jalabhumi Pond	116	Banerjee Para By lane Pond 2	127
Goyla Para Jalabhumi Pone 2	116	4A, Banerjee Para Pond	127
Itkhola Pond	121	162/1A, Sarsuna Main Road Pond	127
Charaktala Pond	121	240/3, Sarsuna Main Road Pond	127
Charaktala Mandir Pond	121	29/C, Sarsuna Main Road Pond	127
Jayshree Padmapukur Pond	121	57, Ram Road Pond	127
Uma Pally Jora Pond	121	Ram Road Recreation Club Pond	127
Adibasi Pond	121	Sarsuna Housing Estate Pond	127
Pocha Pond	121	Padma Pukur Sarsuna Pond	127
Manmohan Park Pond	121	Shyamali Udyaan Pond	127
18 Bigha Masjid Pond	121	8 No Uttar Kashthodanga Pond 1	127
18 Bigha Basti Pond	121	8 No Uttar Kashthodanga Pond 2	127
Muchipara Padma-Jheel	121	8 No Uttar Kashthodanga Pond 3	127
Sukanta Pally Pond	121	Sarsuna Upanagari Phase 1 Pond	127
Gabbar Miyan Pond	121	KashthoDanga Road Private Pond 1	127
Netaji Sadak Pond	121	KashthoDanga Private Pond 2	127
Netaji Sadak Mandir Pond	121	KashthoDanga Private Pond 3	127
Swamiji Sadak Private Pond	121	Loknath Mandir Private Pond	127
Sarada Pally Roy-Pond	121	KashthoDanga Main Road Pond 1	127
Mondal Para Pond	121	KashthoDanga Supermarket Pond	127
Behala Blind School Pond	121	Nandagopal Mukherjee Road Private Pond 2	127
Hindustan Park Pond	121	Nandagopal Mukherjee Road Private Pond 2	127
Jodu Colony Pond	121	Banerjee Para Private Pond	127
Kamar Para Pond	121	80/4, Banerjee Para Doba Pond	127
Sodepur Brickfield Road Pond	122	95/25, Banerjee Para Pond	127
Dhawan Colony Pond	122	53, Banerjee Para Road Pond	127
Bangatirtha Sangha Pond	122	SP Chatterjee Road Private Pond	127
Basanti Pally Pond	122	Satin Sen Pally Pond	127

Das Family Private Pond	122	Satin Sen Pally Jheel	127
Jora Pond 1	122		
Jora Pond 2	122		
Daktar Bagan Pond	122		
Daktar Bagan Jheel	122		
Itkhola Jheel	122		
Koyal Bari Pond	122		
Hard Metal Private Pond	122		
Yaar Ali Jheel	122		
PVC Company Private Pond	122		

VIII. We are Living Beings

Water bodies are an intrinsic part of our heritage and culture. We want it to remain the same. Our social audits showed how this is so.

A living pond always draws other living beings towards it. Trees surround it, fishes swim and sunbathe at the surface of the pond. The sunlight reflects and shimmers on the water. People gather around it. They sit to enjoy a quick evening breeze. Many come to forage wild greens that grow abundantly - easily making a day's meal. Men and women wash their clothes and dry them beside the pond.

A living pond is like a community space. There are cultural histories, religious myths and lores, personal stories of memories associated with every quaint pond living amidst a surrounding neighborhood.

Talpokur – 126 Ward

Paradise for Fisher Folks: Want to try fishing, you can join in here too

This was the first pond surveyed in this ward, the largest water body in the region. It is a private pond, but at one time everyone in this region used it for day-to-day work. Currently the fishermen clean and maintain it. They also organize fishing competitions where people come from faraway places – buy tickets to fish in the pond. This is like a recreational activity. The participants are free to carry their picks for the day. These fish are not allowed to be sold in the market.

However, the hazard of plastic waste dumping has its effects here too, making the survival of small fish a challenge.

Pochaa Pukur – 121 Ward Behala

Even though the name suggests a not so pleasing history of this pond, the edges of this pond have fencing and mild beautification is done by the municipal corporation. A lot of people come for a walk in the afternoon.

Aadibasi Pond – 121 Ward Behala

About a hundred years ago many tribal people from the jharkhand region started living here. Now the water of this pond is used only by the people from this community. Here they bathe, wash utensils and clothes.

Jayasree Padmapukur – 121 Ward Behala

A very old water body. The neighborhood is also quite quiet, so the water in the pond is quite clean. It is surrounded by railings. There are long stairs, seats to sit on. The pond is again under the control of the fishermen of the area. Many people come here to buy tickets and go fishing.

Tala Park – 5 Ward Paikpara

One of the most important areas amidst the bustling north Kolkata is the Paikpara Tala Park. In 1717, when the East India Company acquired the rights of 38 villages from the Mughal Emperor Farrukh – Siyar, this tala area was the heart of Dihi Panchanagram. Then the waters of history flowed with the flow of time. This area still exists today and with it is the Tala Jheel Park.

At present, two swimming clubs, Tala Sports Alli and North Kolkata Sporting Centre, run in the Tala Jheel Park premises. Every year swimmers from these clubs represent the district, the state, and the country. Along with this, some important institutions like the Laughing Club or The Morning Walk Association also run at Tala Jheel Park. Even today, many migratory birds flock around this lovely lake in winter. Jheel Park, filled with large trees is a piece of nature's gift to the elderly. The gates of this park are open from 5 a.m. to 8 p.m.

A nearby resident of Tala Park fondly shared his experience of growing up there. Among many things that he enjoyed, was afternoon 'adda' with his friends.

During the survey in ward no. 121, we have witnessed many histories of old Kolkata time and again! The forgotten Charaktala, the red stairway which leads to a pond Ghat.

The Cocola-Bagan Pond is entwined with the traditions of Bengal in every sense. On one side the Shiva temple under the huge banyan tree, the pond ghat with the paved staircase, the century-old pond-side surrounded by a lot of big trees and the long *adda* sessions there, the children swimming, boys' fishing – gives us a sense of a vibrant people's history.

Community Led Cleaning Drives

Viveknagar Jheel – 92 Ward

It is necessary for the municipal corporation and the people of the local region to work together to make the city of joy, Kolkata beautiful and well-equipped. The real manifestation of such a joint effort is The Viveknagar Jheel of Ward 92. The Jheel-Reservoir Development Committee and the Kolkata Corporation oversee the maintenance of the *jheel*. The water in the lake is clear. Strict surveillance measures are in place to ensure that the water is not polluted. Guidelines have been issued by the Jheel Development Committee. Appropriate measures have also been taken from the corporation to ensure that no one leaves dirt in the water. On the banks of the lake is the waste bin of the Kolkata Corporation. There was a swimming system in one part of this lake at one time. Probably, the swimming pool has been shifted because the water is contaminated.

Dhakuria Yuva Tirtha Sangha – 92 Ward

This water body has been beautifully restored with plants and shrubs as a live boundary. Located amidst many high-rise buildings, the water body became a garbage dump and source of dengue mosquitoes. At one point of time.

The Yuva Tirtha club cleaned the pond and placed important community messages on dengue prevention and keeping the water body clean.

Bhaskar Sangh Pond – 92 Ward

Bhaskar Sangha Club has taken a great initiative to reduce harmful chemicals found in soaps and detergents from flowing into the pond. Local community people use the pond for washing and other activities but they are prohibited to go down to the edge of the pond. A separate arrangement has been made right next to the pond for washing utensils and clothes. This reduces pollution in the pond. Fish farming is also beneficial. This pond is mainly maintained for business purposes. For the same reason, due to some conscious steps, the overall aquatic environment is being protected and the local people are also benefiting from the fish.

Jadavpur and the Surrounding Dhakuria area – Ward 92

The name Jadavpur has been associated with a long history of struggle-struggle-movement for ages. Basically, after the partition, the area adjacent to Jadavpur became one of the shelters of most of the displaced people who had migrated to upper Bengal. At that time, they could not afford to build a permanent house, and there was no provision for tap water. All the day – to day activity was dependent on the pond. With changing times and increasing facilities the dependency over the pond has decreased. In the meantime, only the bridge of the past and the present is standing silently at the age-old Jadavpur University! This jheel has been closely associated with the students for generations now. Once famous for its lotus blooms is called 'Padma Jheel'. Rich with small fishes, many young boys jump in' enjoying a nice afternoon dip.t

All the ponds inside the Jadavpur university premises are maintained and supervised by the university with great care and dedication. Visible instructions and sign boards are placed requesting people to not dump plastic waste in the pond.

IX. What can you do as a citizen?

- a. Segregate your household waste into wet, dry, and hazardous waste. You may give your hazardous and dry waste to waste collectors.
- b. Create a composting club in your neighborhood so all of you can use the compost to grow food and a flower garden.
- c. Reduce use of single use plastic. Ensure safe disposal of single use plastic. Reuse plastic and recycle as much as possible.
- d. Water is scarce, and not everything dissolves in it. Many materials make it toxic. Look after your freshwater and groundwater systems.
- e. Use Municipal Vats to dispose of your waste, do not litter.
- f. Keep an eye on the water bodies in your neighborhood, they create fresh air and cool down temperatures for you.
- g. If you own a private pond and cannot afford to keep it clean, seek out help from voluntary organizations who may help you, or call KMC to clean it for you.
- h. Keep drains in your area clean. Drains are not for garbage disposal.
- i. Learn more about lakes and wetlands, their life and how they connect with yours.

IX. Acknowledgments

Eeshanee Chatterjee
 Zoya Hossain
 Tamalika Dey
 Swagata Mukherjee
 Bidisha Bhattacharjee
 Sujan Sarkar
 Saumyadeep Bhaumik
 Sumana Ghoshal
 Pamela Dey
 Diya Mondal
 Divan Mondal
 Aopala Banerjee
 Sanghamitra Mukherjee
 Madhyama Halder
 Anshuj Sinha Roy
 Deepayan Purkait
 Debaleena Datta
 Sreetama Bhattacharya
 Sumona Ghosal
 Chaiti Nath
 Shaswata Lahiri
 Sayantoni Datta
 Koustabh Chakraborty
 Gaurab Srivastava
 Megha Malakar
 Ujaan Chandra



Get in Touch with us:
Eco Hive Foundation
 93/A, Santoshpur Avenue, Kolkata 700075
 theecohivefoundation@gmail.com
 9748038672