Project Presentation

4th November 2023

GEOSPATIAL ASSESSMENT AND MAPPING OF URBAN PONDS IN PAYYANNUR MUNICIPALITY, KERALA STATE, INDIA

Starting Date : 10/08/2023 Ending Date : 03/01/2024

Goals : Mapathon

Grand Type : Individual

Total Budget : Rs 75000/-

Grantee : Dr. Bindu K B

Contact Details : drbindukb@gmail.com, bindugis@gmail.com

Dr. Bindu K B

Assistant Professor on Contract

Department of Geography

Kannur University

Project Presentation

4th November 2023

Addressing Issues

The present project is addressing two significant challenges.

- **The spatial availability of water resources in Payyannur municipality is not geospatially surveyed and recorded.**

In case of ponds availability only few ponds are identified and plotted early by Payyannur municipality but are not updated yet. Hence during the time of water scarcity, the governing body finds it difficult for provision of water availability and irrigation facility. Since there is serious issue of salt intrusion in available wells, canals, streams and river, local people depends on urban ponds for their water requirements.

- **Researchers specializing in water resource conservation and management the micro data is unavailable.**

Even though many research work are carried out in this regard but open accessibility of raw data and updating of data is not done yet. As the existing total ponds are not geospatially marked, researchers find it difficult to identify and derive data for their research work.

Hence OSM being an open platform for receiving vector data and information, an initiative towards generating geospatially vectorized water resources data (pond details) in Payyannur municipality can be a solution for the above said two local challenges.

Target Project Outcomes

a) **The inventory of ponds geospatially** plotted within Payyannur municipality can be made available for the administrators which can be used in various water resource conservation and management strategies.

b) **Conservation priority-based categorization of urban ponds** will be helpful for utilization of rejuvenation and maintenance funds as per the very high, high, moderate, low and very low priority.

c) A micro level spatial data generated on OSM Kerala platform will not only help researchers to **derive data but also its methodology can be used for OSM mapping** and database formation of other water resources in the study area.

Project Presentation

4th November 2023

Executing Plan

Phases	Key Activities	Mile Stones	Time line (Month and Weeks(W))	Specific Requirements
I	Area Selection and Data Collection	Training	Month 1 – W1,W2,W3	Training support from the mappers
		Listing of ponds	Month 1 – W3, W4 Month 2 – W1,W2,W3,W4	
		Data collection	Month 3 – W1,W2,W3,W4 Month 4 – W1,W2,W3,W4 Month 5 – W1,W2,W3,W4	
II	Digitization	Pond mapping and Data entry	Month 1 – W3, W4 Month 2 – W1,W2,W3,W4 Month 3 – W1,W2,W3,W4 Month 4 – W1	
		Municipality Spatial Layers	Month 1 – W4 Month 2 – W1,W2,W3,W4 Month 3 – W1,W2,W3,W4 Month 4 – W1,W2,W3,W4 Month 5 – W1,W2,W3,W4 Month 6 – W1, W2	
III	Validation and Correction	Ponds Data	Month 1 – W4 Month 2 – W1,W2,W3,W4 Month 3 – W1,W2,W3,W4 Month 4 – W1,W2	Validation support from the mappers and validators
		Spatial Distribution and Data Editing	Month 1 – W4 Month 2 – W1,W2,W3,W4 Month 3 – W1,W2,W3,W4 Month 4 – W1,W2	

Project Presentation

4th November 2023

Project Presentation

4th November 2023

Project Progress

- 10/08/2023 - Project started on
- 11/08/2023 - Appointed a Field Assistant – Mr Anand O K
- 14/08/2023 - Discussed about the Research Methodology of the Work and scheduled the working plan for the project.
- 15/08/2023 to 20/08/2023 – Training for using QGIS 3.28 Software
- 21/08/2023 to 26/09/2023 – Started Thematic Mapping and Field Survey Sheet preparation

Project Presentation

4th November 2023

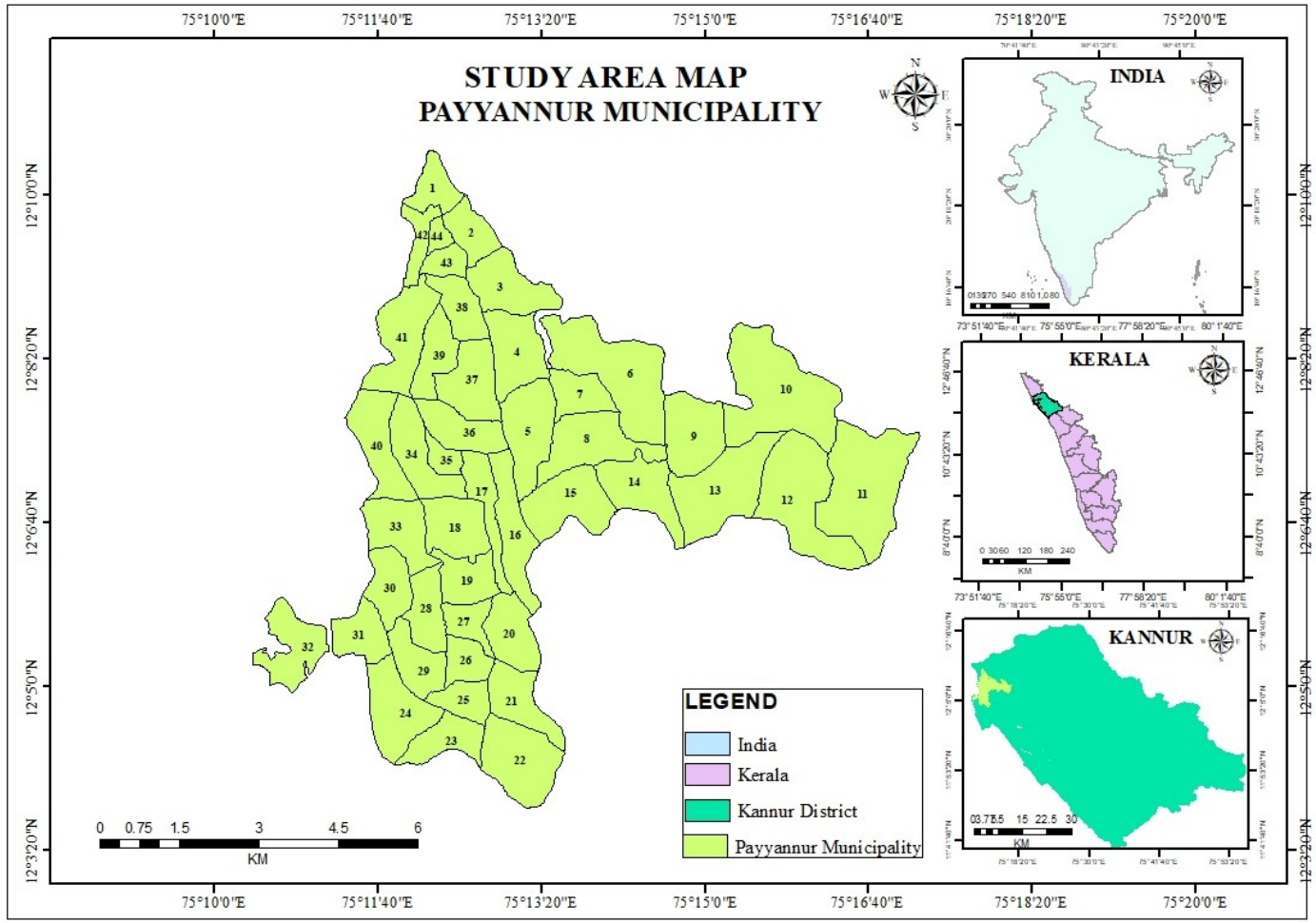
Project Progress

- 09/10/2023 – OSM Training Workshop at Department of Geography, Kannur University
- 27/09/2023 – Started field data collection and survey based inventory preperation

Study Area

Project Presentation

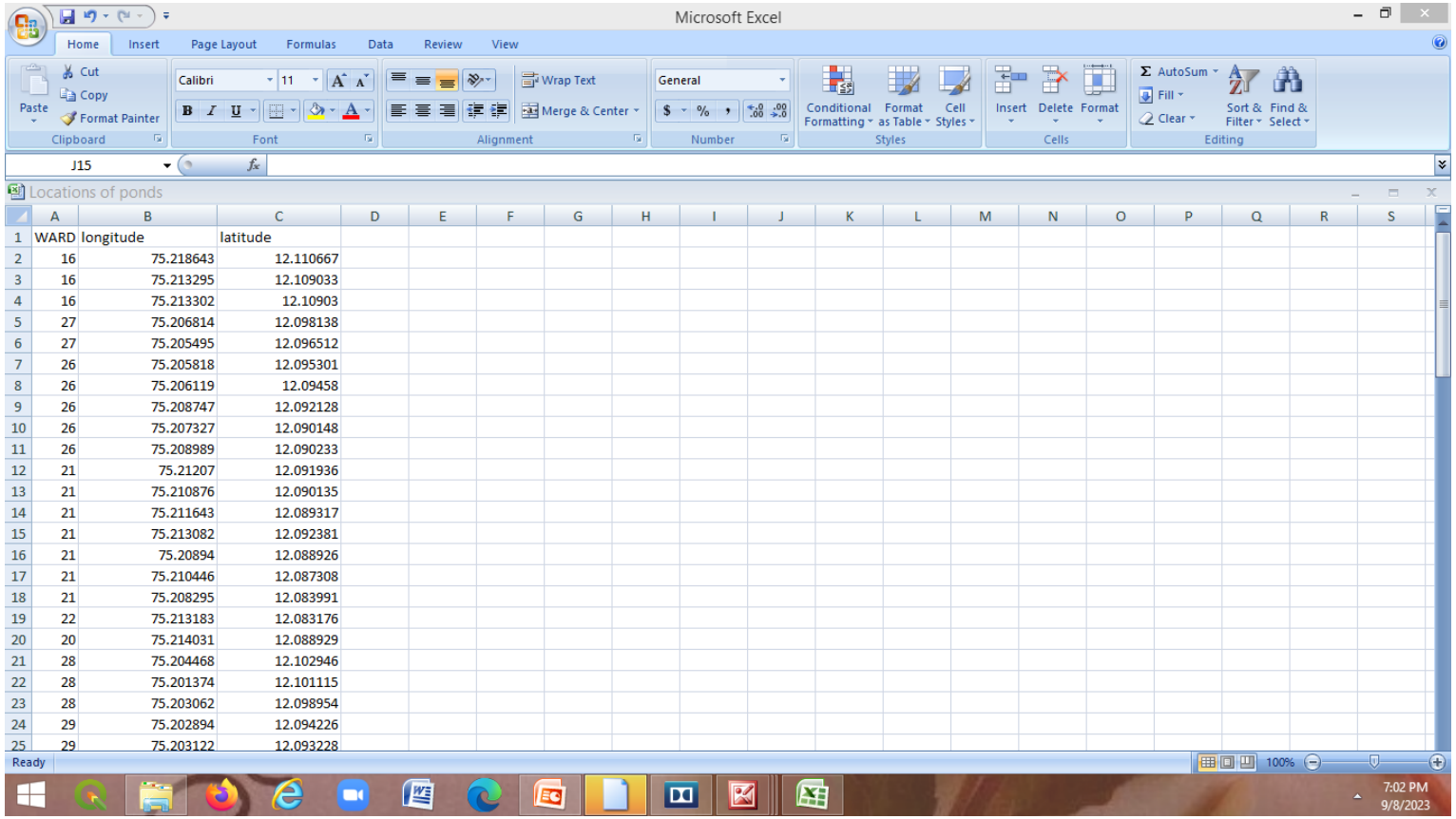
4th November 2023



Project Progress

Project Presentation

4th November 2023



	A	B	C
1	WARD	longitude	latitude
2	16	75.218643	12.110667
3	16	75.213295	12.109033
4	16	75.213302	12.10903
5	27	75.206814	12.098138
6	27	75.205495	12.096512
7	26	75.205818	12.095301
8	26	75.206119	12.09458
9	26	75.208747	12.092128
10	26	75.207327	12.090148
11	26	75.208989	12.090233
12	21	75.21207	12.091936
13	21	75.210876	12.090135
14	21	75.211643	12.089317
15	21	75.213082	12.092381
16	21	75.20894	12.088926
17	21	75.210446	12.087308
18	21	75.208295	12.083991
19	22	75.213183	12.083176
20	20	75.214031	12.088929
21	28	75.204468	12.102946
22	28	75.201374	12.101115
23	28	75.203062	12.098954
24	29	75.202894	12.094226
25	29	75.203122	12.093228

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Project Presentation

4th November 2023

Source : Google Earth Pro

Legend

Location of Ponds

Project Progress

Project Presentation

4th November 2023

Budget

Project Presentation

4th November 2023

Item	Unit	Unit cost (INR)	Total (INR)
Mapping			
Mapping and Data editing	1	4000	4000
Water Quality Test	20	750	15000
Staff Renumeration			
Field Assistant (Rs 10000 *5 months)	1	50000	50000
Other Expense			
Transportation	1	4000	4000
miscellaneous	1	2000	2000
Total (INR)			75000

Fund released as First Installment

Rs 30000/-

Salary for Field Assistant Staff released

Rs 20000/-

Fund utilized for Miscellaneous

Rs 2000/-

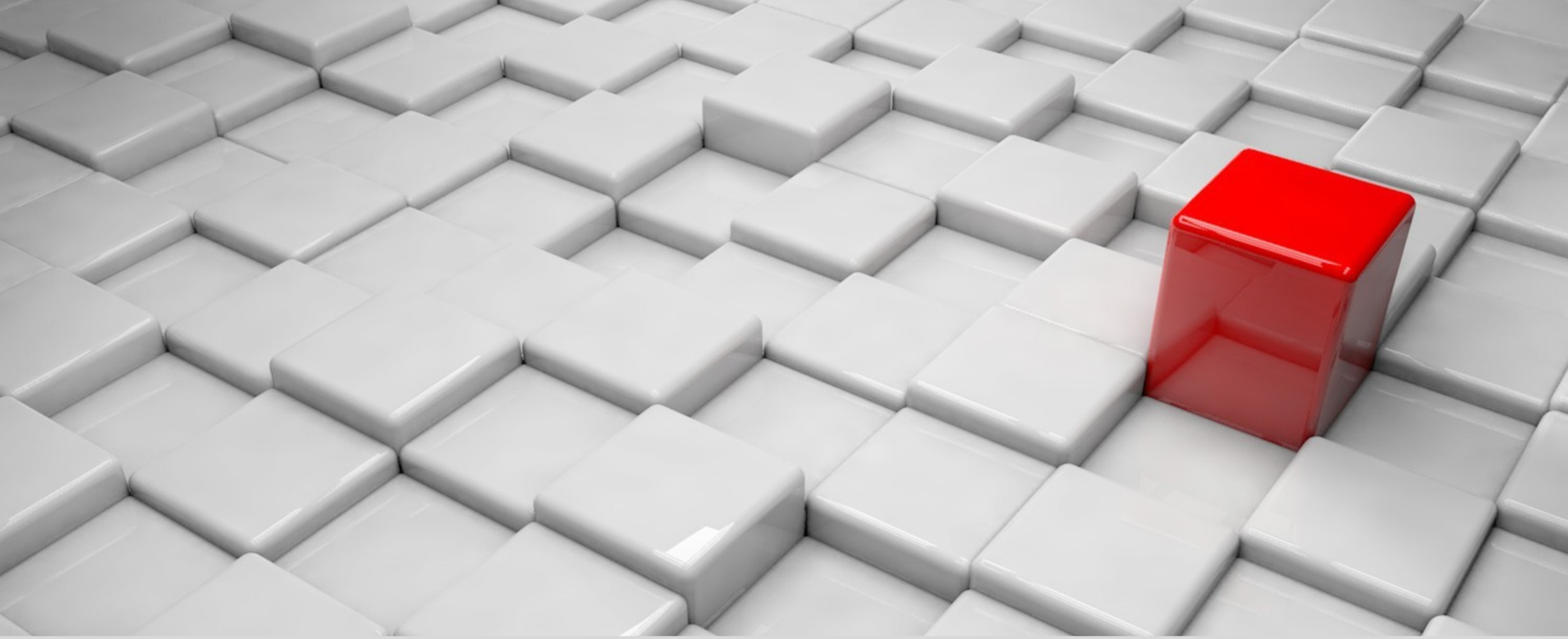
Fund utilized for Training

Rs 4000/-

Fund utilized for Transport

Rs 1000/-

Balance of Amount Rs 3000/-



Thank you