

# Ahmedabad

SECTION 1 - The following section contains items for informed consent for participants taking part in the survey questionnaire of Akshay Anand, Ph.D. researcher, Department of Urban and Regional Planning and Geo-information Management, Faculty of Geoinformation Science and Earth Observation, ITC, University of Twente, The Netherlands.

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\* I have understood the study information document, or has been read to me. I have been able to ask questions about the study, and my questions have been answered to my satisfaction.

*Consent of Participation*

OK

\* I consent voluntarily to be a participant in this study and understand that I can refuse to answer questions and I can withdraw from the study at any time without having to give a reason.

*Consent of Participation*

OK

\* If recorded, I agree to participate in audio recording and I have been informed that the recorded data will be transcribed as a text for analysis. Adding to that, I agree to my responses being manually noted down by the researcher

*Consent of Participation*

OK

\* I understand the risks and discomfort that taking part in the study may involve my personal opinions and preferences on the study subject getting revealed to close personal/community/work acquaintance(s) and time-consuming stressful interview..

*Consent of Risk and Discomfort*

OK

\* I have been informed about the right to withdraw consent at any time with erasure/rectification of my participation by contacting the researcher via email/phone..

*Consent of Rights and Retention of Data*

OK

\* I understand that taking part in the study involves sharing personal information such as name, email address, phone number, and work information with the researcher and that my responses may also be recorded with my permission..

*Consent of Rights and Retention of Data*

OK

\* I have been informed that the personal information will be pseudonymized for analysis and has a retention period of 10 years which can be accessed by an affiliate University of Twente (UT) credentials on UT data servers and are with GDPR compliance.

*Consent of Rights and Retention of Data*

OK

\* I understand that the information I provide will be used for analysis and the outcome of which will be published and presented in academic/scientific journals, conferences, data repositories as well as in the PhD thesis of the researcher.

*Use of data from the survey*

OK

**What is your age?**

- 18 - 29 years
- 30 - 39 years
- 40- 49 years
- 50 - 59 years
- Above 60 years

**Please select your gender**

- Male
- Female
- Other
- Prefer not to say

**Date**

yyyy-mm-dd

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**Place**

*Approximate Area/Village/Region of residence*

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latitude (x.y °)

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longitude (x.y °)

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altitude (m)

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accuracy (m)

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**What is your highest level of education?**

- No Formal Education
- Primary School
- High School
- Technical or Vocational Training
- University Bachelors
- Postgraduation
- Doctorate

**What is your primary occupation?**

- Service/Job
- Private Business/Consultant/Self-employed
- Daily Wage
- Student
- Household Activities
- Retired
- Other

**Specify (Other)**

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**What is your professional background?**

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**Please indicate how many lakes you visit often or have visited recently. You can point to these lakes on the map in the next section**

*Enter 1, 2 or 3 then press enter.*

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**How often do you visit the lakes you mentioned in the previous question?**

- Everyday
- Weekly
- Monthly
- In six months probably
- May be once a year

**Which lake do you know the best?**

*Enter 1,2, 3 or mention Lake 1, Lake 2, Lake 3 etc..*

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**During which seasons do you most frequently visit the lake you best?***Check all that apply*

- Spring
- Winter
- Summer
- Monsoon
- Autumn
- Prevernal season (end of winter beginning of spring)

**How far do you travel to reach this lake?**

- 0 - 0.2 Kms
- 0.2 - 0.5 Kms
- 0.5 - 3 Kms
- 3 - 5 Kms
- 5 - 10 Kms
- More than 10 Kms

**During your visits to the lake, what purposes or activities have you observed that people engage in?**

Multiple selection. Contextualized and derived from - <https://www.millenniumassessment.org/>

- Enjoy nature
- Observing and study nature
- Fresh air and better climate
- Cultural, spiritual or historical place
- Quite Place or Privacy
- Picnic with friends and family
- Water sports, boating, swimming, kayaking or shore cycling
- Attractive gardens and waterside fountains
- Exercise, walk or active health routine
- Fishing, fodder collection, harvesting, farming
- Water Use - drinking, bathing and washing clothes.
- Livestock rearing, grazing or bathing
- Fetching silt clay or sedimentary soil for construction mortars
- Cremation or Burial
- Toilet, open defecation
- Feeding birds, fish or other species
- Fairs, festivals or mythological events
- Environment Awareness event or lake cleaning or related activities
- Community- group meetings
- Playground
- Other

**Specify (Other)**

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**For which purpose or activities do you visit the lake?**

Multiple selection. Contextualized and derived from - <https://www.millenniumassessment.org/>

- Enjoy nature
- Observing and study nature
- Fresh air and better climate
- Cultural, spiritual or historical place
- Quite Place or Privacy
- Picnic with friends and family
- Water sports, boating, swimming, kayaking or shore cycling
- Attractive gardens and waterside fountains
- Exercise, walk or active health routine
- Fishing, fodder collection, harvesting, farming
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- Fairs, festivals or mythological events
- Environment Awareness event or lake cleaning or related activities
- Community- group meetings
- Playground
- Other

**Specify (Other)**

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**Have you noticed any changes in your purpose or activities over the past few years? If so, please describe.**

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**What according to you, could be the reason for this change in purpose or activities?**

*Some pattern or event that triggers this change*

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<b>On a scale, how would you rate the ecological state of the lake?</b>	Very Poor	Poor	Fair	Good	Very Good
<b>Current Ecological State of the Lake</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>In last 5 years</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Before 10 years</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Before 20 years</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Can you specify why?

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How long have you been aware of the existence of the lake?

- 0 - 5 years
- 05 - 10 years
- 10 - 20 years
- 20 - 30 years
- 30 - 40 years
- More than 50 years

In your view, which factors have a significant impact on the ecological state of the lake?

- Declining Lake Levels
- Contaminated Lake Soil Quality
- Poor Lake Water Quality
- Loss Aquatic and Bird Habitats
- Encroached Lake Edge Conditions
- Pollutants from surrounding area
- Other

Specify (Other)

*Regional climate crisis, disaster or any other conditions/events...*

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What steps would you like to see taken at the lake to keep it safe and healthy?

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Do you think, as a user/resident you may have influence to positively affect the ecological condition of the lake?

- Yes
- No
- Not Sure

Why do you think so?

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Do you believe you have the ability to take action on decisions/situations to make a positively impact on the ecological condition of the lake?

- Yes
- No
- Not Sure

Can you elaborate briefly, how?

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**Have you been involved in any efforts or activities aimed at safeguarding the ecological condition of the lake?**

- Yes
- No

**Can you describe these efforts and activities?**

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**Can you specify any reason?**

*Or what kind of activities you would be interested in.*

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**Do you think you have a role in contributing to the protection and preservation of the lake?**

- Yes
- No
- Not Sure

**Why do you think so?**

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**Role**

- Government
- Non-Government Organisation/Non-Profit Organisation/Trust/Community Group
- Individual/Resident/Villager
- Private Business

**Capacity**

**SECTION 2 - ACTOR SPECIFIC QUESTIONS**

*Nested question based on the selection of the 'Role', in a previous response.*

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**Please select the appropriate response for the following sentences.**

Strongly Disagree	Disagree	Can't Say	Agree	Strongly Agree
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**The environmentally sensitive peri-urban lakes should be identified, especially in climate-sensitive zones.**

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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**Peri-urban lakes have huge potential to become regional nature parks and recreation as well as public space.**

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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**Peri-urban lakes can provide many shared benefits for rural, urban and the peri-urban region.**

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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**We should prioritise on developing the peri-urban lakes in the outskirts to reconnect nature to avoid encroachments.**

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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Peri-urban lakes are often at risk, affecting public health, hygiene and cleanliness.

The financial partnership models for lake rejuvenation like, public-private partnership (PPP), Corporate Social Responsibility (CSR), Corporate Environmental Responsibility (CER) can bring promising outcomes for lake conservation and restoration initiatives.

Depending on the size, area and catchment, peri-urban lakes can provide for increasing regional water supply demand for irrigation and domestic use.

Integrated land use, infrastructure, and multi-modal connectivity are key challenges for peri-urban areas. Peri-urban lakes can serve as vital nodes, enhancing neighborhoods with gardens, nature amenities, and public spaces, adding aesthetic value

Certain peri-urban lakes have the capacity to facilitate groundwater recharge, retention, and water treatment facilities.

The administrative transition of a rural lake into a peri-urban or urban setting also changes the lake ecological as well as socially on how it is used.

The goals of various departments within the state, parastatal, regional, urban and municipality differ in scale, work cycle and policies and interests hence there are some overlapping issues with respect to peri-urban lakes.

Do you believe that the goals of various state departments, parastatal organizations, regional bodies, urban authorities, and municipalities differ in terms of their boundaries, scale, jurisdiction, working styles, policies, and interests, which may potentially leave peri-urban lakes in a state of uncertainty or neglect?

Please select the appropriate response for the following sentences.   
 Strongly Disagree      Disagree      Can't Say      Agree      Strongly Agree

Lake ecosystem express a sense of unity, of circularity, of internal relationship among inhabitant species, of common tie to their own waters and to the flora and fauna.

Peri-urban lakes form a micro-climate to produce cooling effect in the region.

Peri-urban lakes support aquatic biodiversity with diversified flora and fauna. Hence, they are good places to observe nature, birds for education and awareness.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Peri-urban lakes are a form of climate amenity and an important ecological asset/climate goods.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lakes gives natural beauty and aesthetic value and ecological continuity in the neighborhood as well as in the peri-urban landscape.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lakes are stimuli of historicity with spiritual and cultural values. They represent real deposits of memories, of culture, of traditions associated with the lakes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lakes can potentially improve quality of life of residents in the region.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lake is a public good, hence it should be equitable and accessible to all, which includes the land covered by it, the water it stores and the public space around it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The environmentally sensitive peri-urban lakes should be identified, especially in climate-sensitive zones.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Peri-urban lakes have huge potential to become regional nature parks and recreation as well as public space.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Peri-urban lakes are often used by heterogeneous users - farmers, local residents, villagers, migrant workers, users or visitors for different activities and purpose.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Peri-urban lakes are an economic source for many of these users which are dependent on lake for the livelihoods.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A degraded or polluted lake puts public health and hygiene at risk.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Please select the appropriate response for the following sentences.	Strongly Disagree	Disagree	Can't Say	Agree	Strongly Agree
Peri-urban lakes are a source of livelihoods for local communities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The environmentally sensitive peri-urban lakes should be identified, especially in climate-sensitive zones.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Peri-urban lakes should be accessible to all, but some user groups have more control and influence.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Peri-urban lakes have special cultural and historical attachment with the local communities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Lakes gives natural beauty and aesthetic value and ecological continuity in the neighborhood as well as in the peri-urban landscape.

Lake garden projects or lake precincts development should be in consultation with the preferences of local user groups and communities.

Lake is a public good, hence it should be equitable and accessible to all, which includes the land covered by it, the water it stores and the public space around it.

A degraded or polluted lake puts public health and hygiene at risk.

Peri-urban lakes have huge potential to become regional nature parks and recreation as well as public space.

Peri-urban lakes are an economic source for many of these users which are dependent on lake for the livelihoods.

Ownership of the lake and influence over its management decisions should primarily belong to the community.

Lake community groups/NGOs provide an essential momentum for public awareness and education for the protection of lake ecosystem

Lake community groups play an important role in generating public awareness and providing education for the conservation of the lake ecosystem.

Community groups have members who may have influence of local politicians or powerful local leaders to leverage collective action for a cause.

Please select the appropriate response for the following sentences.  Strongly Disagree  Disagree  Can't Say  Agree  Strongly Agree

Investments around lakes may provide long term strategic and economic advantages.

Business have experienced economic benefits from investments around peri-urban lakes.

Incorporating surrounding lake into design and planning of large projects may enhance property value of the proposed project.

Businesses see potential for innovative, lake-centric real estate development that benefit both residents and the environment.

**The financial partnership models for lake rejuvenation like, public-private partnership (PPP), Corporate Social Responsibility (CSR), Corporate Environmental Responsibility (CER) can bring promising outcomes for lake conservation and restoration initiatives.**

**Business should seek opportunities for corporate partnerships/schemes related to peri-urban lake conservation and development.**

**Have you contributed to any such CER/CSR activity with the government?**

Yes  
 No

**Name of the lake**

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**Can you identify for which lakes you contributed?**

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latitude (x.y °)

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longitude (x.y °)

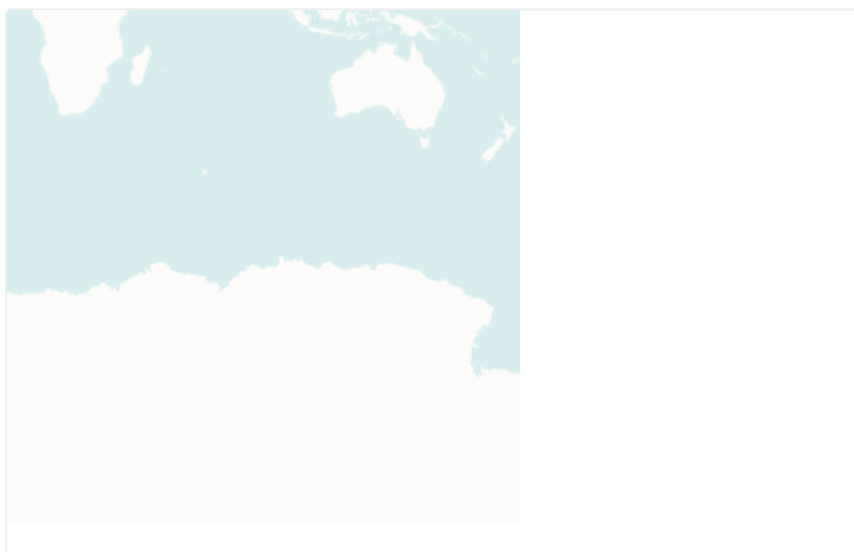
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altitude (m)

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accuracy (m)

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**Lakes are an attractive feature for development in the peri-urban area.**

**Peri-urban lakes have huge potential to become regional nature parks and recreation as well as public space.**

**Peri-urban lakes are often at risk, affecting public health, hygiene and cleanliness.**

**Businesses should engage in partnership or collaboration with government, local village and residents to ensure responsible and sustainable development in the peri-urban area.**

<b>Businesses that operate near the lakes, serve the needs of lake visitors or residents.</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Lakes attract a significant portion of customer/visitor base.</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Businesses should consider the environmental impact of their activities on lake and aim to minimize waste and pollution.</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Businesses must participate in community events and initiatives related to peri-urban lakes.</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Lakefront or lake development projects improves the economic land value of the surrounding area.</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Our business ensures responsible lake use and conservation in recreational or other activities around the lake.</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Our nursery engages in community outreach to raise awareness about the importance of peri-urban lakes in gardening</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>We are aware of the environmental and social responsibilities associated with our activities/investments around the lakes.</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>The environmentally sensitive peri-urban lakes should be identified, especially in climate-sensitive zones.</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**From your viewpoint, who has higher potential to effectively safeguard and conserve the ecological state of the lake?**

*Multiple selection*

- Relevant Government Department/Authority/Environment Enforcement Agency
- Collective Actions/Community Groups/NGOs/NPOs/Research Organisations
- Individuals Actions from Local Residents/Users/Environment Activists
- Conservation efforts with financial Support from Corporate Social Responsibility (CSR)/Corporate Environment Responsibility (CER) Schemes with Business/Industries