

M.SC. • THESIS DEFENCE

Microplastics in Urban Lakes: Sources and Seasonal Trends

M.Sc. Dissertation Viva

CANDIDATE

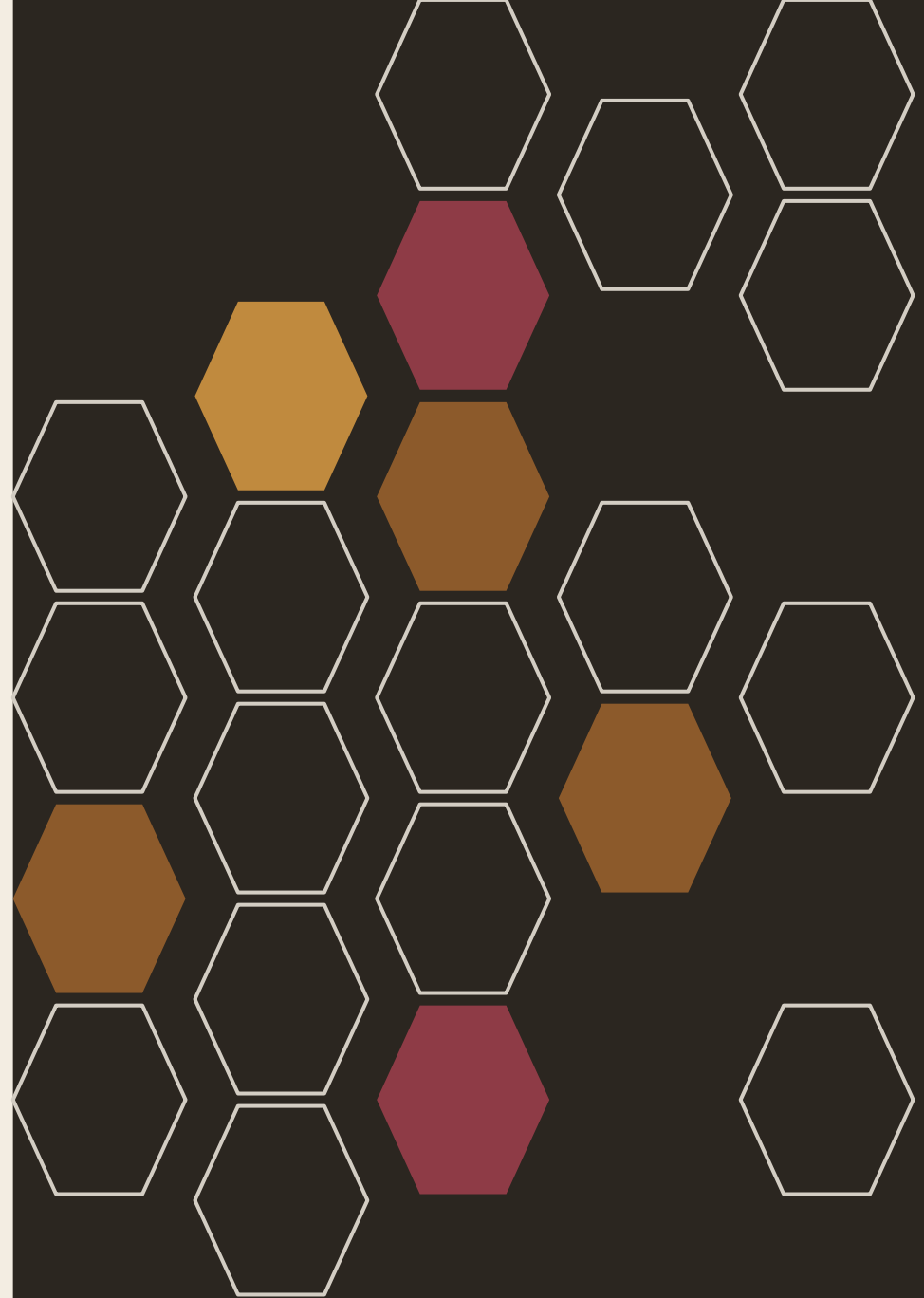
Research Scholar
Name

SUPERVISOR

Prof. Supervisor
Name

DEPARTMENT

Environmental
Science



Agenda

01

Background

02

Research questions

03

Methodology

04

Findings

05

Contribution

Background and motivation

- Microplastics are now found in most freshwater bodies
- Urban lakes receive runoff and untreated wastewater
- Local data on concentrations is scarce

RESEARCH GAP

No seasonal study exists for lakes in our city.

Research questions



RQ1

What are the concentrations across seasons?



RQ2

Which sources contribute most?



RQ3

Do concentrations differ by lake use?

Related work

Theme	Key findings	What is missing
Theme A	Established baseline methods	Limited to lab settings
Theme B	Recent data-driven approaches	Small, narrow datasets
Theme C	Field studies	No comparative evaluation

Summarise your literature here.

Research design

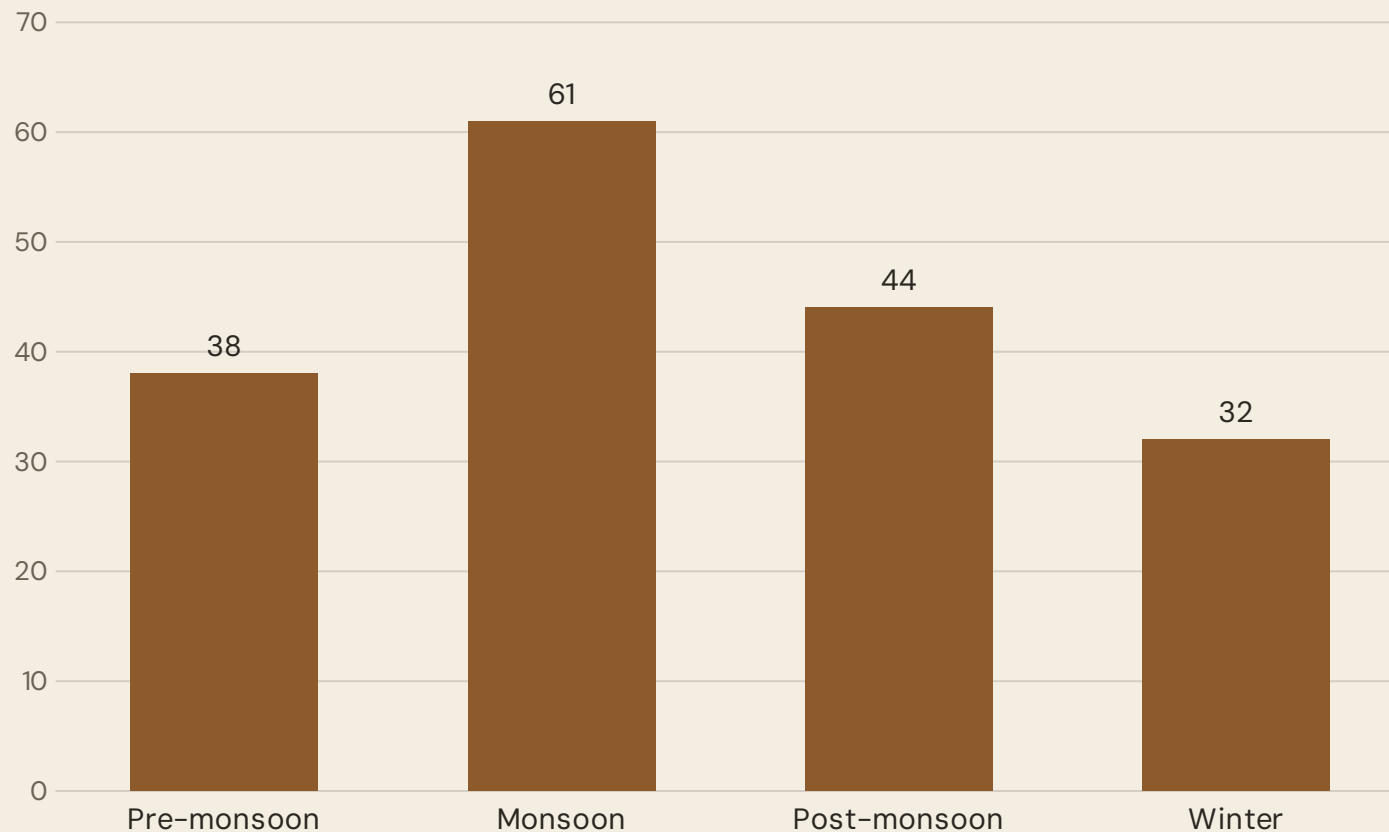
1	Sample	Monthly water and sediment samples
----------	---------------	------------------------------------

2	Extract	Density separation and filtration
----------	----------------	-----------------------------------

3	Identify	Microscopy and spectroscopy
----------	-----------------	-----------------------------

4	Analyse	Statistics by season and site
----------	----------------	-------------------------------

Key result



Concentrations peaked in the monsoon as runoff increased (sample data).

Sample data for illustration — replace with your own figures.

Findings vs hypotheses

Hypotheses

- Monsoon raises counts
- Fibres dominate
- Recreational lakes worse

vs

What we found

- Confirmed monsoon peak
- Fibres and fragments equal
- Inlet sites worst

Contributions



Baseline

First seasonal baseline for the city.



Method

Low-cost lab protocol.



Policy

Evidence for drain screening.

Thank you

I welcome your questions.

Research Scholar Name
scholar@university.ac.in

