

Mobile App for Reporting Environmental Violations

1. TITLE OF THE PROJECT

Mobile App for Reporting Environmental Violations

2. BACKGROUND / INTRODUCTION

Environmental pollution and illegal environmental practices (such as waste dumping, deforestation, burning, water contamination, and wildlife violations) continue to rise in many communities. Although governments and environmental agencies have monitoring systems, these mechanisms are often slow, manual, and do not cover remote areas.

With the growth of smartphones, mobile applications offer an opportunity for citizens to instantly report environmental violations with accurate location, photos, and videos. However, most existing systems lack real-time reporting, verification features, feedback channels, and centralized data storage. This limits transparency, slows the response time, and prevents effective data-driven decision-making.

This project proposes the development of a mobile application that enables citizens to report environmental violations quickly and effectively.

3. PROBLEM STATEMENT

Despite the existence of environmental protection laws, reporting mechanisms remain weak, inefficient, and inaccessible. Current channels such as phone calls or physical forms lack accuracy and verification. Most existing tools do not provide real-time GPS tagging, multimedia uploads, or feedback mechanisms.

4. RESEARCH GAP

- Lack of real-time, geo-tagged reporting systems
- Weak citizen-authority communication
- Limited evidence submission
- No centralized violation database
- Poor transparency and engagement

5. OBJECTIVES

General Objective:

To develop a mobile application that enables citizens to report environmental violations in real time.

Specific Objectives:

- Create a user-friendly interface
- Implement GPS-based location tracking
- Allow photo/video uploads
- Develop a centralized database
- Integrate with authority dashboard
- Provide status updates
- Improve transparency

6. RESEARCH QUESTIONS

- How can mobile technology enhance environmental monitoring?
- What features are required for effective reporting?
- How can GPS and multimedia improve verification?

7. SCOPE OF THE PROJECT

The project focuses on developing the mobile app, backend, and authority dashboard with real-time reporting and data analytics.

8. SIGNIFICANCE OF THE STUDY

- Empowers citizens
- Improves reporting efficiency
- Supports authorities with accurate data
- Promotes transparency
- Enables data-driven decisions

9. METHODOLOGY

Agile development methodology will be used. Tools include Flutter/Android Studio, Node.js/PHP, MySQL/Firebase, and Google Maps API.

10. EXPECTED RESULTS

- Fully functional mobile reporting app
- Centralized database
- Faster reporting and response

- Increased citizen engagement

11. PROJECT LIMITATIONS

- Requires internet connection
- Privacy concerns
- Reliance on user honesty
- Depends on government adoption