

Visit Report - Taluka Krushi Adhikari Office

Date: 3rd March 2025

Location: Taluka Krushi Adhikari, Amode, Maharashtra

Latitude/Longitude: 21.333265°N, 74.892202°E

Purpose of Visit:

The visit was aimed at collecting soil health and fertilizer usage data for Shirpur Taluka to enhance the Sustainable Fertilizer Usage Optimizer for Higher Yield project. The goal was to understand real-world agricultural challenges and gather relevant datasets for analysis.

Key Discussions & Observations

1. Interaction with Agricultural Officers

- Discussed common farming practices and fertilizer application methods.
- Understood the impact of soil quality on crop production.
- Gathered insights on existing fertilizer recommendation guidelines.

2. Dataset Collection Process

- Source: The dataset was obtained from the agricultural department, including soil health reports, crop-wise fertilizer recommendations, and climatic conditions.
- Method:
 - Collected district-wise soil test reports for different regions of Shirpur Taluka.
 - Obtained crop yield records based on different soil conditions.
 - Retrieved weather impact reports affecting soil fertility.
 - Conducted farmer surveys to understand their fertilizer usage patterns.

3. How to Study the Dataset Properly

Data Cleaning: Remove inconsistencies and missing values from soil health and fertilizer usage reports.

Data Categorization:

- Soil Parameters: pH, nitrogen (N), phosphorus (P), potassium (K), organic carbon, etc.
- Crop-Specific Fertilizer Needs: Ideal fertilizer dosages for major crops in Shirpur Taluka.
- Weather Influence: Correlation between rainfall, temperature, and soil fertility.



