

## **Problem Statement id: AVS317**

**THEME:** DIGITAL EMPOWERMENT FOR RURAL COMMUNITIES.

**PROBLEM STATEMENT:** Small and marginal farmers rarely receive timely, location-specific agricultural advice. Depending on outdated or generic guidance leads to poor crop choices, inefficient resource use, and avoidable yield losses.

**DESCRIPTION:** Small and marginal farmers often lack access to timely, localized, and science-backed agricultural advice, relying heavily on traditional knowledge or generalized recommendations. This deficiency leads to suboptimal crop choices, inefficient resource use (water, fertilizer, pesticides), and significant yield and financial losses. The system should provide crop selection guidance, weather-based advisories, soil nutrient analysis, fertilizer/pesticide dosage suggestions, and early warnings on pests and diseases. It should include a multilingual interface, chatbot support, and a farmer-friendly dashboard, ultimately improving resource efficiency, crop yields, and farm income.