

# Abstract

This research aims to develop a predictive model for farmers' contributions to the Pradhan Mantri Fasal Bima Yojana (PMFBY), an agricultural insurance scheme in India. Utilizing historical data on crop insurance coverage, the study will identify patterns and trends in farmer contributions, considering factors like crop type, state policies, and premium rates. The analysis will inform the optimization of government subsidies to maximize coverage while ensuring equitable access. Furthermore, the research will enhance transparency and informed decision-making in policy design. The final model will be deployed as an interactive web application using Flask, enabling stakeholders to explore predictions and their implications dynamically.