

Synopsis Submitted to



**The IIHMR University, Jaipur
for Master of Business Administration (MBA)**

in

Development Management

by

Ishika Agrawal (0043)

Under the Supervision and Guidance of

Dr. Himadri Sinha

**(Professor, Provost IIHMR University & Dean SDS at IIHMR
University, Jaipur)**

SYNOPSIS FOR DISSERTATION

1. TITLE: EFFECTIVENESS OF COW-BASED ORGANIC FARMING AS A SOLUTION TO HARMFUL EFFECTS OF AGROCHEMICALS UNDER SROFR&TC (GGVS) IN LADPURA, KOTA, RAJASTHAN.

INTRODUCTION

Introduction and Literature Review

A. Identification of Specific Problem Area

The excessive use of agrochemicals in conventional farming has led to significant environmental degradation, soil infertility, and health hazards. Finding sustainable farming solutions is crucial to mitigating these negative effects.

B. Prevalence and Scope of the Problem

Agrochemicals, such as synthetic fertilizers and pesticides, are responsible for biodiversity loss, water pollution, and soil deterioration. Farmers relying on these chemicals often face health risks and economic challenges due to the long-term impact on soil productivity.

C. Overview of Existing Research

Research indicates that cow-based organic farming offers a sustainable alternative to chemical-intensive farming. This method promotes soil health, reduces dependency on synthetic inputs, and improves biodiversity.

D. Research Gaps

While various studies discuss organic farming's benefits, limited research focuses on the economic feasibility and practical adoption of cow-based organic farming at the farmer level. This study aims to fill that gap.

E. Research Purpose and Questions

This research aims to evaluate the effectiveness of cow-based organic farming in addressing agrochemical-related issues and its feasibility as an alternative to conventional farming.

RESEARCH QUESTION:

1. How does cow-based organic farming function effectively as a sustainable solution?

OBJECTIVES:

1. To assess the adoption of cow-based organic farming by farmers under SROFR&TC, Ladpura tehsil, Kota.
2. To evaluate the extent to which conventional farming is being replaced by cow-based organic farming.
3. To analyze the reduction of harmful side effects caused by agrochemicals through organic farming methods.
4. To assess the production cost and economic feasibility of cow-based organic farming.
5. To evaluate the cost-benefit ratio of cow-based organic farming compared to conventional methods.

HYPOTHESIS:

H0: There is no significant difference in farming cost between conventional and cow-based organic farming.

H1: Cow-based organic farming leads to significant cost savings and environmental benefits over time.

H2: Adoption of cow-based organic farming significantly reduces soil and water contamination compared to conventional farming.

MATERIAL AND METHODS:

RESEARCH/ STUDY DESIGN: A mixed-methods approach will be used, incorporating both qualitative and quantitative analysis to evaluate the effectiveness of cow-based organic farming.

SETTINGS: Ladpura tehsil, Kota district, Rajasthan- specifically the villages Under the SROFR&TC and Goyal Proteins Limited, Kota, Rajasthan.

STUDY POPULATION:

1. **Inclusion Criteria:** Farmers practicing both conventional and cow-based organic farming in various villages of Ladpura tehsil, Kota.
2. **Exclusion Criteria:** Farmers practicing only conventional farming in various villages of Ladpura tehsil, Kota, Rajasthan.
3. **Study Tools or Measurement Instruments:**
 - Survey questionnaires for farmers.
 - Soil and water quality assessment reports.
 - Cost-benefit analysis frameworks.

Procedures: Farmers will be surveyed, and field observations will be conducted to assess farming practices, costs, and benefits.

DURATION OF STUDY: The study will be conducted over a period of 3 months.

SAMPLE SIZE: 40 farmers of Ladpura Tehsil, Kota, Rajasthan.

SAMPLING TECHNIQUE:

- A stratified sample of farmers who have adopted organic farming practices will be selected.
- Purposive sampling for in-depth qualitative interviews

DATA COLLECTION METHOD/ PROCEDURES:

Primary Data:

- Surveys and structured interviews with farmers.
- Field observations of farming practices.
- Performance testing of organic farming in different regions.

Secondary Data:

- Review of existing research studies on organic farming.
- Analysis of government policies and reports on organic farming promotion.

OPERATIONAL DEFINITIONS:

1. **Cow-Based Organic Farming:** Uses cow dung, urine, and natural inputs instead of chemicals.
2. **Conventional Farming:** Relies on synthetic fertilizers and pesticides.
3. **Adoption Rate:** % of farmers shifting to organic methods.
4. **Soil & Water Contamination:** Chemical residues measured in samples.
5. **Economic Feasibility:** Affordability and profitability of organic farming.
6. **Cost-Benefit Ratio:** Comparison of income vs. expenses.
7. **Effectiveness:** Success in improving environment, health, and income.
8. **Barriers:**
 - **Lack of Awareness:** Many farmers are unaware of organic methods and their benefits.

- **Initial Low Yields:** Organic farming may give lower yields in the short term compared to chemical-based farming.
- **Market Access Issues:** Difficulty in finding buyers or fair prices for organic produce.
- **Labor Intensive:** Requires more manual work and time, especially in preparing inputs like jeevamrit.

DATA ANALYSIS PLAN:

1. Quantitative Analysis:

- Comparative analysis of farming costs.
- Impact assessment through soil and water quality testing.
- Cost-benefit evaluation.

2. Qualitative Analysis:

- Thematic analysis of interviews and farmer experiences.
- Case studies of successful organic farming implementations.

ETHICAL CONSIDERATIONS:

- Informed consent from participants.
- Confidentiality and anonymity of respondents.
- Use of credible and verified secondary data sources.

IMPLICATIONS OF RESEARCH:

- **Environmental:** Promotes soil health, reduces pollution.
- **Economic:** Cuts farming costs, boosts income.
- **Health:** Lowers risks from chemical exposure.
- **Policy:** Supports eco-friendly farming policies and schemes.
- **Academic:** Fills research gap on practical use and cost benefits of organic methods.

EXPECTED OUTCOMES:

- Insights into the efficiency and sustainability of cow-based organic farming.
- Evaluation of economic feasibility compared to conventional farming.
- Assessment of environmental benefits and reduced dependency on agrochemicals.

REFERENCES:

Agricultural Policy Report (2021). Government of India.

Exploring the Benefits of Organic Farming for Health and the Environment Article ID: 44122 (Vikrant Malik et al 2023).

Organic agriculture in a low-emission world: exploring combined measures to deliver a sustainable food system in Sweden. Sustainability Science, 18(1), 501-519. (Basnet et al 2023).

Environmental impact of different agricultural management practices: conventional vs. organic agriculture. Critical reviews in plant sciences, 30(1-2), 95-124 (Gomiero et al 2011).

Agrochemicals and Their Impact on Environment (Mukesh Kumar et al 2024).

Toxicity of agrochemicals: Impact on environment and human health (Pranav Anjaria et al 2024).