

Issues and Concerns of Pesticide Use in Agriculture: Exploring Facts from the Malwa Region of Indian Punjab

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Introduction

The Malwa region of Indian Punjab face a lot of environment and health issues due to the hazards, excessive, and unsafe use of pesticides, fertilizers, and poor groundwater quality. Cotton crop failure owing to white fly attack in Malwa region of Punjab in 2015 has proved environmental and climate changes have affected cropping pattern adversely that further leads to economic crisis of agrarian community.

Objectives

Given the current agrarian crisis in the Malwa region of Punjab, the main aim of the current project is to evaluate the socio-economic externalities of pesticide use in selected areas of the region.

Specific objectives of the study are:

- A. To study the socio-economic externalities of pesticide use in the selected areas of Malwa region of Punjab;
- B. To assess the factors responsible for extensive use of pesticides for cotton crop in view of the current crisis;
- C. To suggest appropriate guidelines for regulating the safe use of pesticides

Methodology

A total sample of 120 farmers and 80 agricultural labourers (including women labourers) from four selected villages in equal numbers are randomly chosen to study the socio-economic externalities of pesticide use in the region. Ten pesticide dealers, five from each district are selected to know the information regarding pesticide, insecticide and herbicides currently in use by the farmers for various crops. To measure economic, social, environmental and health externalities, the present study is heavily relied on the methodology adopted by Khan et al.(2002).Formal survey and case study methodologies are conducted to collect evidence on health hazards, production losses due to pest resistance etc. The

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