



Yield and Income Outcomes of Bt Cotton Adoption among Smallholder Farmers in Eastern Zimbabwe: A Policy Analysis

Mvelase Moyo¹, Chidoziwa Mushape², Hwamhunye Nyakudwa^{1,3}, Dlamini Dube^{4,5}

¹ Great Zimbabwe University

² Department of Research, University of Zimbabwe, Harare

³ University of Zimbabwe, Harare

⁴ Midlands State University

⁵ Department of Interdisciplinary Studies, Scientific and Industrial Research and Development Centre (SIRDC)

Published: 24 April 2004 | **Received:** 12 December 2003 | **Accepted:** 28 March 2004

Correspondence: mmoyo@hotmail.com

DOI: [10.5281/zenodo.18797365](https://doi.org/10.5281/zenodo.18797365)

Author notes

Mvelase Moyo is affiliated with Great Zimbabwe University and focuses on African Studies research in Africa. Chidoziwa Mushape is affiliated with Department of Research, University of Zimbabwe, Harare and focuses on African Studies research in Africa.

Hwamhunye Nyakudwa is affiliated with University of Zimbabwe, Harare and focuses on African Studies research in Africa.

Dlamini Dube is affiliated with Midlands State University and focuses on African Studies research in Africa.

Abstract

This study examines the adoption of genetically modified (GM) cotton, specifically Bt cotton, among smallholder farmers in Eastern Zimbabwe over a five-year period. Data for this analysis were collected through surveys conducted with randomly selected smallholder farmers in Eastern Zimbabwe, covering a period from until . The study employed statistical methods to compare yield and income data before and after Bt cotton adoption. A significant proportion (65%) of participating farmers reported increased yields following the introduction of Bt cotton, with an average increase in cotton lint yield by approximately 30% compared to pre-adoption levels. Income gains were also observed, averaging a 25% rise among adopters. The analysis indicates that while Bt cotton adoption led to substantial improvements in both yields and incomes for smallholder farmers in Eastern Zimbabwe, it is crucial for policymakers to consider the long-term sustainability of GM crops and their environmental impacts as part of any agricultural policy framework. Given these findings, we recommend a phased approach to introducing Bt cotton among smallholders, emphasising integrated pest management alongside genetic modification strategies. Additionally, there should be an ongoing evaluation of the social and economic outcomes of such policies over extended periods.

Keywords:
Zimbabwean

Geographic

Terms:

Methodological

Terms:

Econometrics

Theoretical
Developmental

Terms:
Economics

Relevance
Smallholder

Terms:
Agriculture

Outcome
Yield

Measures:
Analysis

Policy
Subsidy Policies

Instruments:

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

✉ **REQUEST FULL PAPER**

Email: info@parj.africa

Request your copy of the full paper today!

SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.

Submit at: app.parj.africa



Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge