

## **Summary**

The role of modern technology in economic transformation and sustainable development of Africa has been a subject of debate amongst theorists. Two dominant schools of thought have come up namely pro-modern technology and those opposed to scientific technology. Lessons from literature show a number of technological failures in Africa. Despite the trend of failures, policy and development practitioners continue to implement external technologies to achieve community development. The Broad-Ridge and Broad-Furrow technology was imposed on the Zungwi community and only benefited few people at the expense of others who lost their access and use rights. The study was therefore conducted to analyse socio-economic outcomes of implementing innovations like the Broad-Ridge and Broad-Furrow tillage system over resources access, use and management in Zungwi vlei Mutambi ward, Zvishavane district, Zimbabwe. The project largely adopted both participatory and non-participatory approaches. Some of the tools used in data collection included questionnaire surveys, interviews, trend analysis, mapping, focus group discussions and community meeting. It was established that comparatively more people benefited from Zungwi vlei before it was transformed into the Broad-Ridge and Broad-Furrow scheme than was the case after the transformation. Numerous benefits were derived from the different resource units in Zungwi vlei including: cultivation, grazing, aquaculture, domestic watering, traditional ritual, gathering fruits and may others. Management of vleis resources was done by the traditional institutions, which used myths. Conflicts within the community are the major outcome of the imposition of the technology on Zungwi vlei. The results of the study indicate the presence of both internal and external conflicts, which include; leadership problems, unequal sharing of fields, laziness, suspected embezzlement, absenteeism and nepotism. These conflicts have been waged through; verbal attacks, absconding from meetings and resisting decisions made by leadership. On the other hand external conflicts have been between households

and institution over the Zungwi vlei. Introduction of the new technology resulted in the increase in conflicts has shown by questionnaire respondents, 15% of 72 respondents who said there were conflicts before the technology and 50% who acknowledged existence of conflicts after the technology. The major causes to external conflicts after the implementation of the technology were: changing tenure, lost benefits, no compensation for losses, restricting admission of new members and under utilisation of vlei resources by scheme members. Fifty-three percent indicated that there is soaring of relations between those who support the vlei scheme and those against it. Out of 38 respondents 60% said conflicts had negatively affected conservation of natural resources while 40% said they did not. 53% of 38 respondents said vlei resources are being degraded as a result of conflicts. Seventy-three percent of 38 respondents said conflicts over Zungwi vlei were affecting agriculture, while 27% said they were not. The findings of the study have shown that although external technologies have succeeded in other areas different communities can resist them and not legitimise it. The study results support the arguments by scholars who are anti-technocentrism. In conclusion the Broad-Ridge and Broad- Furrow tillage system has limited access and uses of the common poll vleis to scheme members and restricted use of the resource units to cultivation. Hence the technology has exacerbated conflicts, which are dysfunctional for social capital, productivity and conservation of resources. This has limited the success of the technology in the case of Mazvihwa communal Area.

**Dedication**

This work afforded me the opportunity to generalise concepts about conflicts at the family level. I dedicate this work to my late Daughter Tadiwa Mbereko and everyone affected by conflicts especially in the home. God bless those who are victims of conflicts and those who attempt to resolve conflicts.

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## List of Acronyms

AGRITEX	Agriculture Technical and Extension Services
AREX	Agriculture Research and Extension Services
AIDS	Acquired Immune Deficiency Syndrome
CA	Communal area
CBD	Convention on Biological Diversity
CBNRM	Community Based Natural Resources Management
CITES	Convention on International Trade in Endangered
CONEX	Conservation and Extension
CSO	Central Statistics Office
CV	Community Visioning
DA	District Administration
EMA	Environment Management Act
FC	Forestry Commission
FGD	Focus Group Discussion
FGDs	Focus Group discussions
GMB	Grain Marketing Board
GMOs	Genetically Modified Organisms
HIV	Human Immunodeficiency Virus
ITK	Indigenous Technical Knowledge
IWRM	Integrated Water Resources Management
MEAs	Multi-lateral Environmental Agreements
MoHCW	Ministry of Health and Child Welfare
NGO	Non –Government Organisation
NRB	Natural Resources Board
PRA	Participatory Rural Approach
RPK	Rural People's Knowledge

SDAMP	Smallholder Dry Area Resources Management Project
SIMA	Systems Wide Initiatives on Malaria and Agriculture
SPSS	Statistical Programme for Social Sciences
TOT	Transfer of Technology
TTL	Tribal Trust Land
UNFCCC	United Nation Framework Convention on Climate Changes
VIDCO	Village Development Committees
VIDCO	Village Development Coordinator
WCED	World Commission on Environment and Development