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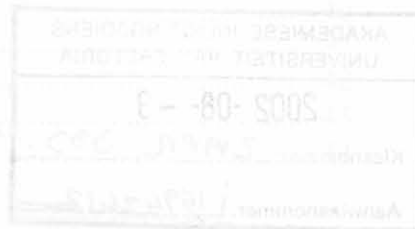


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N N Maswana

Signature: *N N Maswana*

Date: 2006/04/20

DECLARATION

I declare that this mini-dissertation describes my original work, except where specific acknowledgement is made to the work of others, and has not previously in its entirety or in part been submitted for a degree to any other university.

I dedicate this work to my grandmother, Mashugu, for being everything to me.

N.N. Maswana

Signature *N.N. Maswana*

Date *10.01.2002*

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DEDICATION

1. My supervisor, Professor M.C. Laker, whose outstanding guidance, courage and patience throughout the study made my dreams a reality
2. My parents **I dedicate this work to my grandmother, Mashugu, for being everything to me.**
prayers during my studies
3. The Madikizela community, Tom Penn, HDI, EDA and My Zakeya Shubane who assisted me with information
4. DFID, Mr. Tim Poy in particular, who funded my studies
5. Mr. Theo van der Merwe, who was my supervisor at the research stage of my study, for his parental guidance and his encouragement during difficult times
6. ARS – Institute for Soil, Climate and Water, André Henson, Mr M. Maphahlele and Mr V. Lwiza in particular, who assisted me in producing the maps

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ABSTRACT

Soil erosion is a hazard that is adversely affecting agricultural production in the Eastern Cape province. The climatic conditions and parent material (natural resources) are not conducive for the development of stable soil. This situation is, however, aggravated by amongst other things, poor planning, bad agricultural practices, land tenure, population pressures, overgrazing, etc.

Soil reclamation has become one of the Government's priorities. However, all their attempts have failed. On the other hand the interventions by NGO's have been successful.

This study has found that the most effective way to address the soil reclamation problems and ensure that the soil conservation initiatives are successful and sustainable, is to:

1. Involve the natural resource users (the local community). Community involvement entails the following:
 - a. The community taking ownership and the lead in the initiative.
 - b. Where there is a need they must be empowered to make informed decisions.
 - c. For the participation to be effective, there must be technology transfer.
 - d. The immediate beneficiaries must be the active participants.

2. Prevent soil degradation through development of sustainable farming systems for the poor soils. This is a process that needs detailed study of the natural resources as a first step. In this study it was learnt that poor planning as a result of lack of understanding or knowledge of the natural resource of the province, particularly the soil, is one of the key causes of soil erosion. A detailed study of the soils or soil survey of the Eastern Cape has become critically important in order to ensure that planning is based on facts rather than assumptions. This will pave the way for the development of sustainable farming systems.

However, without addressing the land tenure system in the Eastern Cape province (communal), by giving ownership of land to the people it becomes difficult to ensure that farmers will invest in the land through soil reclamation and soil conservation practices.

"The value of soil is rarely appreciated because of its seemingly universal abundance. Except where covered with buildings and roads, or in rocky places in recreational parks, the entire land surface appears to be covered with soil. Only a small fraction of soil, however, is suited for cultivation. It is this small fraction upon which an ever-expanding civilization must depend most for food and fibre" (Forest, 1989)

Agriculture is regarded as the heart of African economies because a large percentage of the population earns their living from agriculture (Braun and Geach, 1988). Provision of the staple food and even the food that is required to meet the basic dietary needs must be accomplished through sustainable farming on the natural resources. It is therefore important for the people to look after their agricultural resources in order to ensure sustainable agricultural production. It has been realised that far too little attention has been devoted by farmers to soil protection against erosion and maintenance of soil productivity through good cropping and grazing practices (Beemer, 1993). This has led to widespread erosion and denudation in the landscape. Generally people ignore soil erosion, they only act to do something when they come across open dongas. Loss of soil through sheet, rill and gully erosion affects farmers. Through soil erosion both soil and water resources are decreased as rivers and dams silt up, thus reducing their carrying capacity and large quantities of soil are wasted.

Soil erosion does not only leave the landscape with bad scars, but it also reduces/lowers the fertility of the soil, reduces underground water supplies and silt up dams, and generally lowers farm income. Low farm income results in poverty and may lead to famine. Soil erosion is an unnecessary and unaffordable wastage of the productive land.

It is everybody's responsibility to increase agricultural production in order to meet the demands of the growing population and improve the rural incomes through trade with