

# **Ilivestock manager Decision Support System**

The arid and semi-arid lands comprise of over 80% of the country's land mass. Most of these regions in Kenya are heavily degraded due to various factors including bush encroachment, inappropriate land use, droughts, and increase in unpalatable species among others.

Various interventions have been tested to reverse this trend. Key among them is reseeded and pasture improvement which is an option to increase the productivity of land to provide adequate feed for livestock.

Many of these interventions have not achieved a wide impact to the communities, especially pastoral communities in Kenya.

There are still challenges that pastoralists face in order to find enough pasture for their livestock which include:

- Border conflicts
- Insecurity
- Drought impact on animals which led to many animal deaths.

## **Proposal**

Using 2 datasets from KALRO research, Irrigated forage production and Effect of Supplementing Rhodes Grass Hay with Cotton Seedcake on Growth Performance of the Small East African Zebu Weaners in South Eastern Kenya datasets, development of a decision support system for analyzing the importance of implementation of irrigation for animal farming.

A large scale utilization of the 80% of our arid land through irrigation can mitigate many challenges faced by the farmers in the country today. Through the data, several perennial species of pasture that are drought tolerant, grazing tolerant, have high nutritive value and are persistent have been proposed but their impact is yet to be felt by pastoral farmers.

Effect of Supplementing Rhodes Grass Hay with Cotton Seedcake on Growth Performance of the Small East African Zebu Weaners in South Eastern Kenya datasets. Proposes the use of cotton seedcake as a protein supplement on the growth performance of the Small East African Zebu weaner cattle.

Based on this a large production of the perennial species pasture and cotton for animal consumption will not only mitigate farmers' problems, but also improve animal health and size.

## **Target Users**

National Irrigation Board

Ministry of agriculture, livestock and fisheries.

Ministry of agriculture in county governments.

Individual farmers or Group.

## **Long term impact**

NIB conducts operational research and has demonstration farms in its research stations including Mwea Irrigation Agricultural Development Centre (MIAD), Ahero Irrigation Research Station (AIRS), Tana Irrigation Research Station (TIRS) and Bura Irrigation Research Station (BIRS). NIB also has Mwea Rice Mills (MRM) and Western Kenya Rice Mills (WKRIM) as its subsidiary companies which serve as processing plants for milling and packaging rice bought from farmers in the respective schemes. Under the expanded national irrigation programme (ENIP), NIB is undertaking new

development as well as rehabilitation of irrigation projects currently numbering about 169 spread all over the country.

So far only irrigation schemes in operational focus of food for human,Rice in most of the schemes ,animals pasture production is yet to be implemented in large scale in kenya.

### Screen Shots

Name	Location	Contact Person
Mukunike water springs	Mukunike	Dominic Mutiso
Imara S.H.G	Wendano	Damaris
New Uka Wone	mukunike	Joseph
Bethsaida S.G.H	Mbagathi	Mburu
Fourteen falls S.H.G	Kisiiki	Elizabeth

Metric	Value
Contact Persons	20
DT Species	5
Feed Diet	3