

# The Weekly

## Information Resource Bulletin

### Focus: Irrigation

The global population is expected to grow to more than nine billion by 2050, resulting in increased demand for food and land. Population growth has resulted in shortages of land in which to grow crops.

Small scale farmers in Malawi grow maize and other crops using rain-water. As climate change intensifies, rains in the country are becoming inconsistent.

Malawi has a lot of fresh water resources that could allow farmers to use irrigation to mitigate some of the climate change effects; Malawi has thirteen rivers and three lakes which do not dry up.

Irrigation can be an effective means of increasing agricultural productivity and food security.

Irrigation could be one of the longer-term solutions, especially if droughts that Malawi has been experiencing of late become more frequent with climate change.

### The goals of the Weekly Bulletin are:

- To promote irrigation
- To clearly discuss that irrigation could improve agricultural productivity and food security
- To learn from other farmers about the advantages of irrigation
- Share with the listeners the types of irrigation techniques

### The Problem: Lack of Knowledge on Irrigation

Malawian farmers depend on the rains for their agricultural activities; however, because of droughts and inconsistent rainfall, this has led to crops dying in the field – and the result is shortages of food.

Malawi has experienced major droughts and prolonged dry spells over the past thirty years or so.

Recognizing that the effects of climate change will increasingly affect rain-fed agriculture, farmers may want to concentrate more on the use of irrigation which will lead to higher crop yields and reduce the threat of food shortages.

In simple terms, irrigation means the artificial application of water to the land or soil. It assists in the growing of crops and the re-vegetation of soil in dry areas and during periods of inadequate rains. (William.JF)

There are different types of irrigation – including channelling water into the furrows and using

pipes, hoses or even buckets to water the crops. The method used depends on the resources available to farmers and the proximity of the water supply.

The key to an effective irrigation system is to get as much water into the plants or soil as possible. Irrigation has several benefits such as:

- it helps to increase agricultural production – that is, crop yields can be two to three times higher when irrigation is used

- various crops like maize, beans, peas and so on can be harvested together,

- high-valued cash crops like tobacco or sugar cane are grown as annual crops with the help of ground water irrigation

- irrigation also reduces the risk of crop failure due to drought and allows for continuous cultivation. (William.JF)

## Activities for Journalists

Use your radio station to help your community understand the importance of irrigation in the face of climate change.

Help them understand that as the rains in the country are becoming inconsistent, irrigation could be used as one way of increasing agricultural productivity and ensuring food security in the country.

Also mention that the country has a lot of fresh water resources that could help in irrigation. Mention some of the streams, rivers, wells, dams and lakes from your area that could be used for irrigation.

It will be important for you to also mention some of the irrigation techniques that small-holder farmers can use:

**Flood/Furrow irrigation**-This is the most common type of crop irrigation. A farmer collects water in a bucket and pours into the fields. Water is brought to the fields and is channeled along the ground among the crops. This method is simple and cheap, but if not done properly, some of the water is wasted and doesn't reach the crops. Farmers can avoid this by leveling the field. This allows water to flow evenly throughout the field.

Another technique you might want to share with your listeners is the spray irrigation system. This

is a modern way of irrigation and it requires machinery. It is more or less the same as watering your lawn at your house, where you just use a hose pipe and spray water out in all directions. This system uses a long tube fixed at one end to the water source such as a river or a well. Water flows through the tube and is shot out by a system of holes made along the tube.

Talk to several farmers who use irrigation techniques. Ask them why they irrigate and how much of a difference it has made in terms of crop yields.

Ask the farmers to describe in detail how their irrigation system works.

Also ask some farmers in the community why they don't use irrigation.

Talk to an agriculture officer from your area. He/She can clearly explain the advantages of irrigation – since Malawi faces droughts and food shortages due to climate change.

Ask the extension officer to describe the various types of irrigation.

Visit a farmer and get a look at their own irrigation system and do a story on it.

Ask your listeners to call the station or send an SMS about what they think of irrigation in their community.

### Useful Contacts

- PRB- Contact person; Sandra Mapemba: +265-99-921-9789
- Bunda Agriculture College: Mr Mpinganjira:265-1-277-222
- Williams,JF.; SR. Roberts. Managing water or weed control in rice
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