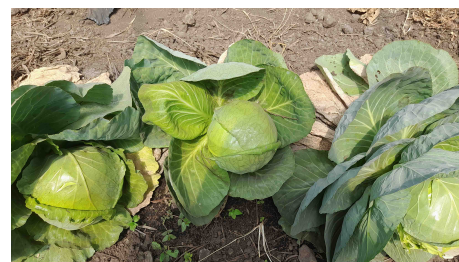


Angaza Greenhouse and Drip Irrigation Farming



Why to choose this solution?

Drip irrigation is an efficient water and nutrient delivery system for growing crops. Relatively less water and manpower is required to irrigate crops. Combination of drip irrigation and greenhouse enhance water use efficiency much more. Greenhouse farming increase crop production because it is possible to create the optimal climate conditions needed for plant growth and it provides possibility to grow more plants per square meter than growing crops in an open field. It is easy to control crop pest and disease and possible to cultivate through the year. Greenhouse help to use little amount of water.

Savings per day or production:

It saves water to about 50 percent because the environment is enclosed and the efficiency of the drip irrigation system where water is directed to the plant root. Crop pest controlled when cultivating in green house, help little use of pesticides or no use at all. By doing this it means less money is spent.

Cost in money and in own time to construct:

The installation of greenhouse of 8mx30m cost Tshs 14,000,000/= The cost of installation depends on market price. Greenhouse structure can also be made from wood or bamboo but does not last long compared with those built by steel type.

Lifetime:

The greenhouse can last for 15 years old and above.

Maintenance needed:

After 5 years, repair of plastic nylon is needed.

Resources needed in use:

Resources needed include standard steel type, steel type assembly and connection, side insect proof screen netting, greenhouse plastic for roofing, Drip irrigation system, water supply (Tank tower, Tank and pipe network).

Problems and limits:

Temperature increases during dry season, leading to affect plant growth negatively. Frequently watering/irrigation can bring cooling of the plants.

Where and how can you get it or make it?

It is available at Angaza Women Centre in Tanzania promoted and installed by Balton company, Greenhouse Tanzania, etc.

Skills needed to produce, install, maintenance, use:

Installation and repair of greenhouse needs trained personnel. Training is needed to be able to construct and repair.

How to use it:

<https://youtube.com/shorts/PXS5xKL30sw?feature=share>

How to maintain it:

N/A

Climate effect (if any):

Agriculture is one of the main drivers of deforestation in Tanzania. Greenhouse make possible to use small area to produce large amount of produces thus eliminating the need to open new field hence reduced deforestation. The use greenhouse uses little amount of water hence it is suitable during the drought condition. Also due to climate change there is an increase of crop pest, the greenhouse can help to reduce use of pesticides contributing to reduce GHG emissions.

Where it is used and how many users are there?

It is used in Angaza Women Centre (AWC) in Tanzania. Commonly used by farmers in Northern part of Tanzania (Arusha, Kilimanjaro, Tanga) and Northern highlands of Tanzania. Currently there are more than 1000 users in Tanzania.

Why is it successful?

Amount of water required for watering plants is reduced. Enable production even in off season, normally crops produced in off season fetch good market price.

If you can make it, a short description, typical problems, materials needed:

Not applicable, needs a skilled technician

How to make it (if possible):

N/A

How is it delivered and by whom?

Main actors are the supplier of drip irrigation systems, farmers, water supply agency.

Successful financial model

The initial capital for installation/construction of greenhouse was obtained from sponsor. Korea Government funded the installation of the Greenhouse. The cost of repair/maintenance is covered by revenue generated through selling crop produce.

What policies and strategies helped the success?

National irrigation Master plan, Tanzania Agriculture policy 2013, Tanzania Horticultural Development Strategy 2012-2021.

More info:

Sources:

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When was the case uploaded?

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in East Africa. Read more and see partners at
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