

Climate Change Adaptation

Adaptation involves anticipating the adverse effects of climate change and taking appropriate action to prevent or minimize the damage it can cause, or taking advantage opportunities that may arise. It has been shown that well planned, early adaptation action saves money and lives later (FAO, 2001).

Climate change affects farmers negatively because it causes uncertainty among farmers. They are unsure when to plant. Climate change affects germination rates among plants, increases wilting of crops and the drying up of rivers and dams.

Conservation farming has proven to be one of the ways to adapt to climate change. Conservation agriculture has already been demonstrated to benefit large-scale and small-scale farmers by increasing soil fertility, reducing input costs, conserving, preventing erosion, and increasing farm profitability.

Therefore, in order to adapt to climate change there is a need to start promoting conservation farming.

The Weekly

Information Resource Bulletin

The goals of the Weekly Bulletin are:

- Bring listeners in the project area the latest information on natural resources, the environment and agriculture
- Focus on solutions, what works and what people can do
- Encourage listeners to share both their questions and solutions (African solutions for African problems)
- Raise awareness of issues that need to be discussed to affect public policy.
- Bring the latest solutions and practices that have relevance to this region from around the world
- Identify and link other NGOs working in the region share the project interests and goals
- Give the participating journalists guidance and tips on their reporting on these issues

Adapting with Conservation Farming

According to the Central Statistical Office, in Zambia, agricultural production is the main source of livelihood in rural areas, where 96% of households are involved in crop production. The majority of these people are subsistence small-scale farmers, and most are women.

Since so many Zambians are farmers, there is a high level of soil degradation and deforestation – and this negatively affects the ecosystem. This is in turn leads to droughts, floods and famines.

Climate change is having a devastating impact on farmers. In order to adapt to the challenges of climate change, conservation farming practices are one alternative that can be adopted – because it can be done cheaply, in most cases.

When no till practices are followed,

the producer sees a reduction in production cost for a certain crop. Tillage of the ground required more money due to fuel for tractors or feed for the animals pulling the plough. The producer sees a reduction in labour because he or she does not have to be in the fields as long as a conventional farmer. Therefore, this kind of agriculture technique is affordable even to the poorest people.

Conservation agriculture also helps to improve soil fertility and structure; helps capture and retain rainwater, and reduce erosion. Through such mechanisms, conservation farming can increase the ability of smallholder farmers to adapt to climate change by reducing vulnerability to drought and enriching the local natural resource base on which farm productivity depends.

Activities for Journalists

The Conservation Farming Unit describes conservation agriculture as a farming approach that fosters natural ecological processes to increase crop yields and sustainability by minimizing soil disturbance, maintaining permanent soil cover, and diversifying crop through rotation (ZNFU information desk).

Farmers, traditionally, didn't seed their lands, that is, allowing them to lie idle for one or more seasons in order to restore healthy fertility levels. In eastern Zambia, high population has forced many farmers to neglect this practice, resulting in continuous cropping of the same land, production declines, cultivation of marginal areas with poor soil quality.

The land was left idle for some time using nitrogen-fixing trees which improve soil structure, organic matter and fertility levels during fallow periods. By using a participatory approach between farmers and researchers that builds on local knowledge and open information exchanges, adoption of the tree planting approach reversed soil degradation (CFU information desk).

It has been noted that Zambia has started embracing conservation farming techniques to boost soil fertility, crop yields and incomes without depending on excessive plowing, chemical fertilisers or expensive irrigation investments.

This practice delivers significant crop gains, for instance, yields on farms using conservation agriculture practices doubled in maize plots and were 60 percent higher for cotton, as compared to conventional plowing systems. This practice helps farmers through the benefits of timely planting, improved water retention and infiltration, good root development, greater precision in fertiliser use, and finds that while these techniques hold promise for other parts of Africa, success will vary according to geographical settings, crops and seasons.

One of the benefits of conservation farming is that you are reducing the number of trees being cut down – trees help clean the air – and reduce the effects of climate change.

There are a variety of stories that can be created on this topic.

Is anyone in your community practicing conservation farming?

What kind of crop yields are they getting? Ask them to compare their crop yields now with previous crop yields before they started using new conservation techniques.

Talk to an expert about conservation farming? How cheaply can a farmer convert to these farming techniques? How do they get help and learn more about conservation farming?

Do you believe the government is doing enough to encourage conservation farming practices?

Visit or call the Zambia Climate Change Network secretariat for more reading resources on climate change adaptation.

Useful Link

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