



DEVELOPING RADIO PARTNERS

## Focus: Climate Change

Climate change is having a devastating impact on farmers and farming across southern Africa.

Agriculture is extremely vulnerable to climate change. Higher temperatures eventually reduce yields of desirable crops while encouraging weed and pest proliferation. Changes in precipitation patterns increase the likelihood of short-term crop failures and long-term production declines (ZNFU information Desk).

Although there are gains in some crops in some regions of the world, the overall impact of climate change on agriculture is expected to be negative, threatening global food security – that is, the ability of the world to feed itself.

Climate change will result in additional price increases for the most important agricultural crops – such as rice, wheat and maize.

This means that society must adapt to the effects of climate change, otherwise, millions will be unable to afford to eat – even the most basic foods.

# 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

## The Problem: Effects of Climate Change on Agriculture

Climate change, which is largely a result of burning fossil fuels, is already affecting the Earth's temperature, and rainfall cycles. Continued changes in the frequency and intensity of precipitation, heat waves, and other extreme events are already having an impact on global agricultural production.

Furthermore, compounded climate factors will decrease plant productivity, resulting in price increases for many important agricultural crops.

Rising temperatures and changes in rainfall patterns have direct effects on crop yields, as well as indirect effects through changes in water availability.

World prices are a useful single indicator of the effects of climate change on agriculture.

The distribution of wild crop relatives, an increasingly important genetic resource for the breeding of crops, will be severely affected leading to less distribution and even extinction.

Not only are farmers unsure when to plant, they are also noticing poor germination rates among their plants, an increase in crops wilting in the field and the drying.

All of this leads to smaller crop yields – which mean less food and ultimately hunger for millions of people.

## Activities for Journalists

In order to adapt to climate change in the agriculture sector certain measures should be carried.

Crop breeding for development of new climate tolerant crop varieties is a key tool for adapting agriculture to a changing climate. History and current breeding experience indicate that natural biodiversity within crops has allowed for plant adaptation to different conditions, providing clear evidence that plant breeding has great potential to aide in the adaptation of crops to climate change.

Despite its astonishing potential, maize is not necessarily the best choice to feed a nation. It demands precise management, is labour intensive, increasingly expensive to grow and susceptible to dry periods. Maize is particularly vulnerable to temperature changes and water stress. Millet, sorghum, cassava and yam are drought-resistant crops.

Some extraordinary Maize statistics from Zambia are worth mentioning here. Of the more than four million hectares of maize planted by smallholder farmers between 2000 and 2008, more than a million hectares or about one-third of the crops were abandoned (ZNFU information desk).

Crop system development is another tool that can help agriculture adapt. For example, the use of crop mixtures that have several crops growing at one time can help systems exhibit greater durability during periods of high water or heat stress.

To reduce the impact of climate change there is need to practice agriculture that takes into consideration climate change adaptation, for instance, agricultural practices that do not promote the cutting down of trees but where crops can be raised under the trees.

Crop yields will decline, production will be affected, crop and meat prices will increase, and

consumption of cereals will fall, leading to reduced calorie intake and increased child malnutrition and hunger.

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

How have farmers in your community been affected by climate change?

Have any farmers changed their farming techniques because of changes in the weather?

Have any farmers stopped growing maize and replaced it with other more durable crops?

Talk with extension agents about what they are advising farmers to do to adapt to climate change?

Have food prices been going up as a result of food shortages – brought on by smaller crop yields caused by drought or flooding?

### Community Engagement

Urge listeners to send SMS, call or stop by the radio station to talk about effects of climate change on farmers.

#### Useful Links

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