



DEVELOPING RADIO PARTNERS

## Focus: Soil Fertility

Soil fertility refers to the ability of the soil to supply essential plant nutrients in adequate amounts and proportion for plant growth and reproduction.

The 68th UN General Assembly declared 2015 the International Year of Soils. This aims to increase awareness and understanding of the importance of soil for food security and essential environmental functions.

Soils are composed of five components: minerals, organic materials, soil water, soil air and living organisms.

Soil fertility can be lost and that means plants won't get enough nutrients to do well. A loss of soil fertility can be the result of several things -- including runoff, erosion, leaching, and crop removal. The loss of soil fertility is not just costly and wasteful but can lead to poor food production and also a source of environmental pollution.

# 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

### Problem: Poor Soil Fertility

Declining soil fertility is a major factor affecting the productivity of soil. Trees provide a number of environmental benefits to both rural and urban areas. The removal of surface leaves and other organic matter from around trees results in soil depletion. The most common practice by many people is to burn leaves and other trees and to indiscriminately cut down trees.

Loss of soil fertility may also be caused by physical factors such as removal of top soil due to water erosion and wind. The soils are very prone to erosion when we

create bare land by clearing away vegetation.

Another factor that contributes to poor soil fertility is the use of chemicals.

Chemicals cause soil conditions not suitable for soil production like high "acidity or alkalinity".

Water logging is still another cause of poor soil fertility. This can be caused by poor farming practices -- such as using too much water and saturating the soil with water. Farmers can seek for help through the agricultural extension officer to understand the conditions of their soils for better yield and food security.

## Solutions: Activities for Journalists

In order to improve soil fertility and agricultural productivity, farmers should diversify their crops by rotating the legumes and the cereals.

Ask your listeners what kinds of crops they rotate?

Has crop diversification been successful for farmers in your community?

Find out from listeners what they think is the major cause of soil infertility in their fields?

Invite an agricultural extension officer to discuss soil quality.

Farming of traditional foods such as cassava, sweet potatoes, sorghum and millet do not require much fertilizers or chemicals that can damage our soils.

High yielding drought/pests tolerant food crops such as sorghum, cassava and sweet potatoes are encouraged in rural communities for food security and rotation with cash crops like maize and cotton

Encourage listeners to continue growing traditional crops as some are drought resistant -- which means these crops can be very valuable during food shortages.

Soil fertility can be enhanced through agro forestry and use of organic fertilizer.

Talk to farmers practicing agroforestry. What lessons can they teach listeners about the significance of agroforestry?

Find out from listeners how much they know about the Conservation Farming Unit of the Zambia National Farmers Union.

This unit promotes soil conservation by encouraging minimum tillage practices.

Find out how much listeners know about minimum tillage and how it helps increase soil fertility and performance.

The Chitemene system or slash and burn system of agriculture is practiced mainly in the northern province of Zambia. It is the practice of continuously clearing land and cutting trees for agriculture use.

Ask listeners about the dangers of continuously cutting down of trees for farm land use.

Agroforestry promotes fast-growing trees. These trees can be used instead of cutting down indigenous plants and trees that take a very long time to grow.

### Useful Links

Information about farming and the environment:  
Makweti Sishekanu, National Farmers Union  
Zambia: +260-211-252-649 or +260-965-098-360.  
Email: [makwetiskanu@yahoo.com](mailto:makwetiskanu@yahoo.com)

Mr Sinya Mbale, Operations Manager Conservation Farming Unit. Email [sinya.mbale@gmail.com](mailto:sinya.mbale@gmail.com)  
Mobile 0965238008

Good source of information: Vincent Ziba, FAO Zambia; Email: [vinceziba@yahoo.com](mailto:vinceziba@yahoo.com). Phone: 0966-246-924

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