

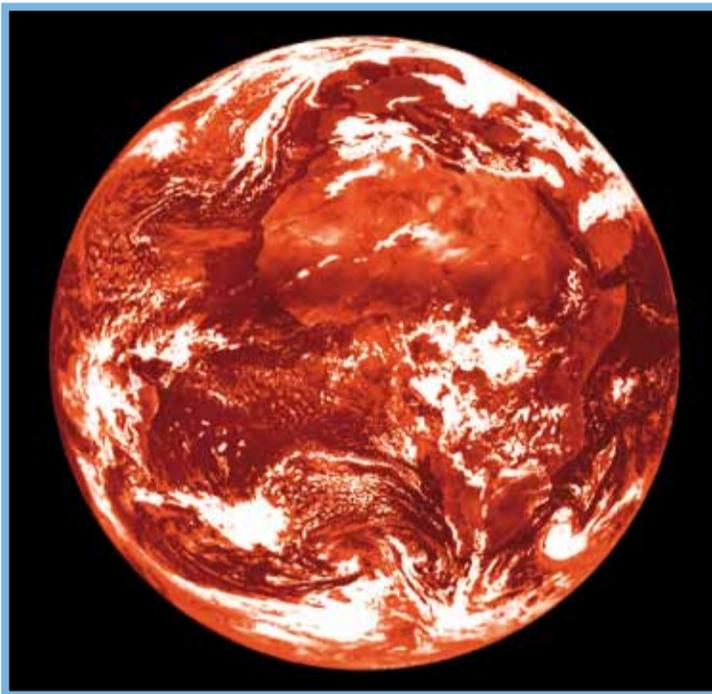
# CLIMATESENSE

The world is in our hands

EDITION 1, 2011

Few scientists deny that the world is warming and greenhouse gas emissions are rising.

## OUR CLIMATE IS CHANGING...



**THE TEMPERATURE OF THE EARTH IS INCREASING BECAUSE PEOPLES' ACTIONS ARE DISTURBING THE NATURAL BALANCE OF GASES IN THE ATMOSPHERE.**



**BURNING FOSSIL FUELS (GAS, COAL AND OIL)**



**CUTTING DOWN TREES AND FORESTS**



**EMISSIONS FROM VEHICLES**

**All these human actions release GREENHOUSE GASES into the atmosphere!**



## UGANDA GOVERNMENT CONCERN

The Government of Uganda is seriously concerned about climate change and the impacts it will have on the lives of Ugandans over the coming years. It is very important that people understand what climate change is, how it is caused and how to reduce its worst effects. NOW is the time to take action.

The Ministry of Water and Environment welcomes CLIMATE SENSE as a source of up to date information on climate change. It is the place where people can read about the many inspiring projects already happening in Uganda in forestry, energy, water and conservation. **So enjoy, learn and act!**

Hon. Maria Mutagamba  
Minister of Water and Environment



Climate Sense brings you information on what Climate Change is and how it is affecting Uganda RIGHT now! It also gives you practical ways to reduce the effects of Climate Change in your own community and ways to conserve and protect the natural environment.

**WHAT ARE THEY, AND WHY ARE THEY CALLED GREENHOUSE GASES?**

Greenhouse gases occur naturally in the atmosphere. They trap the sun's heat like the plastic sheeting used to make the huge flower-growing greenhouses near Entebbe. The sun makes it hot inside and the plastic sheeting stops most of the heat escaping. Greenhouse gases work in the same way. They keep the Earth at the right temperature for life. Without them, the Earth would be much colder.

Too much of these gases in the atmosphere prevents the heat from the surface of the Earth being released back into space. It is like being in a taxi on a hot day with the windows closed – the sun heats up the passengers but there's no way to cool down!

**THE EFFECT IS GLOBAL WARMING!**

### PARTNERS



JOINT ENERGY AND ENVIRONMENT PROJECTS



the Jane Goodall Institute

# WHY IS OUR CLIMATE

*For the last 50 years, global warming has been increasing and the 17 warmest years since records began have been in the last 20 years*

**The main greenhouse gases** are Carbon Dioxide (CO<sub>2</sub>), Methane (CH<sub>4</sub>) and Nitrous Oxide (N<sub>2</sub>O). The greenhouse gas that we hear most about is Carbon Dioxide. A lot of CO<sub>2</sub> is released into the atmosphere whenever we burn fuel; for example from factories, power stations, vehicles and aeroplanes and the burning of wood.



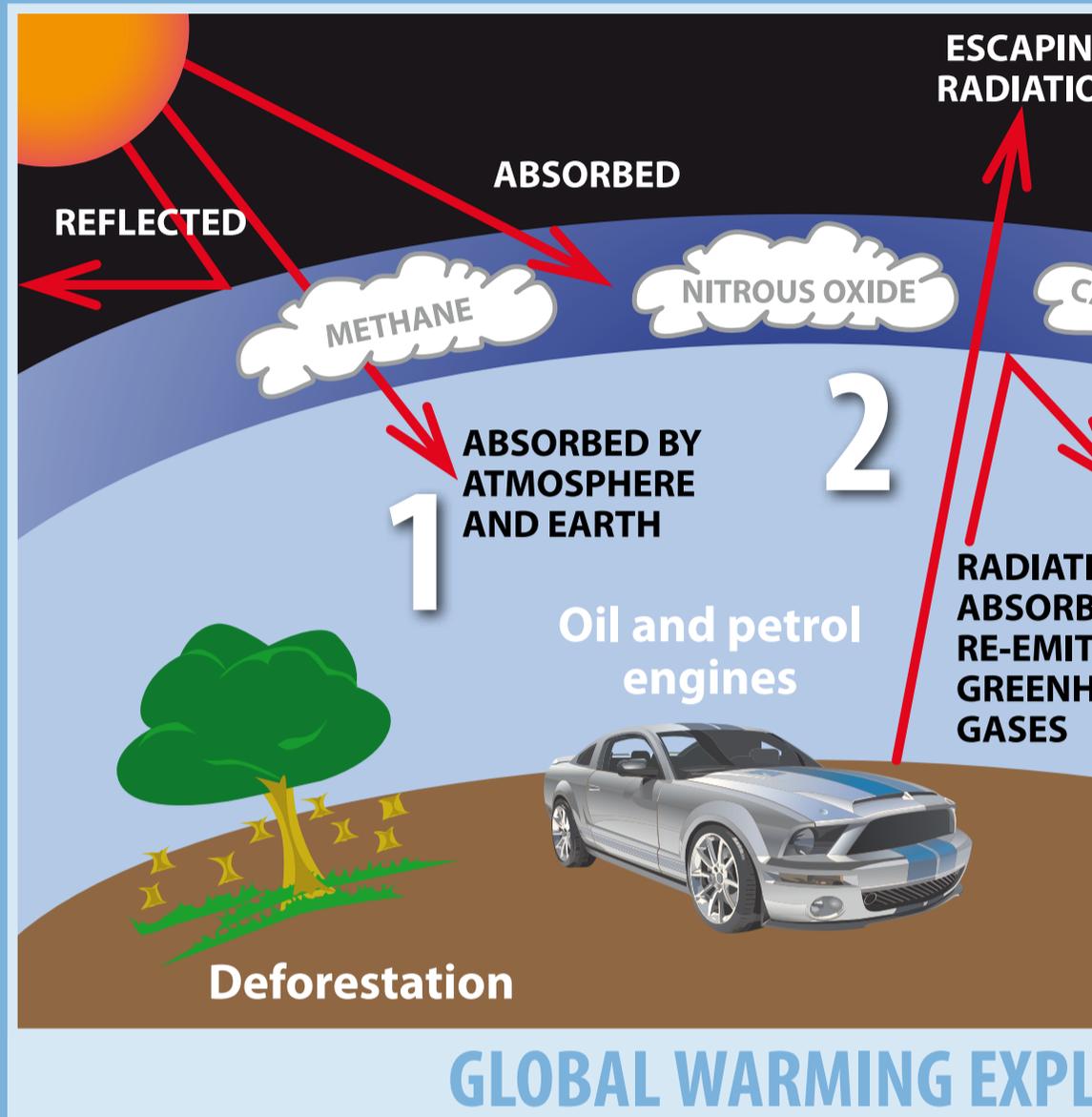
**Methane** is 21 times stronger as a greenhouse gas than Carbon Dioxide. It is produced in the stomachs of animals and people, and is released into the atmosphere from manure, rotting food and plant waste in rubbish dumps. When wetlands are drained large amounts of Methane are also released.



**Nitrous Oxide** is released in the fertilisers farmers use on their crops and when trees are cut down.

## WARNING!

*If global temperatures rise by 4 degrees the water supply of one billion people could be threatened*



## WHAT DOES GLOBAL WARMING MEAN FOR UGANDA?

**Global warming is causing average temperatures to increase. It will affect everyone and will have serious impacts on our health, our environment and our food and water supplies**

**Warmer temperatures** are already changing rainfall patterns, causing snow and ice to melt in some places and droughts in others.



Around the world, storms, heat waves, droughts and floods are becoming worse.

erosion. Erosion is when the fertile top layer of soil is washed or blown away. Soil erosion makes it more difficult for farmers to grow strong and healthy crops and to preserve moisture in their soil.



**Flooding and landslides** increase when the soil is dry. After long periods of drought, the soil becomes very hard, so when it rains, the water runs off the surface, rather than being absorbed safely back into the soil. Climate change is not the only cause of these problems. An increasing population and deforestation combine to make the situation worse.

Drought North Eastern Uganda, 2009  
Kabale landslide, October 2009

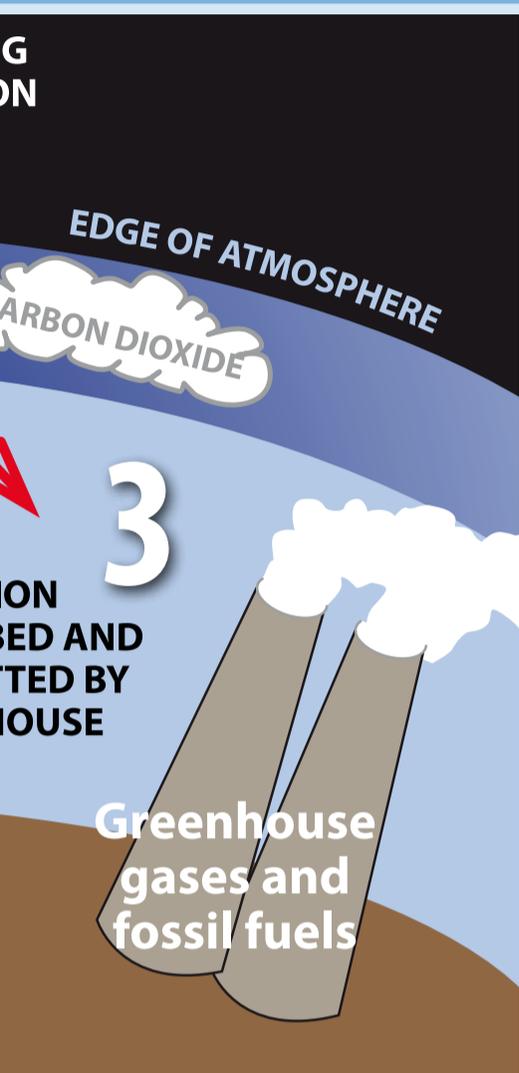
**Uganda** is also seeing changes in rainfall patterns. Land is now dry that was wet before and floods are becoming more common. In Uganda, droughts are leading to water shortages in Teso, Soroti and Karamoja districts. In October 2009, Kabale suffered landslides as a result of flooding and people lost their lives. Most recently, in February 2010, heavy downpours caused a landslide in Bududa region, Eastern Uganda, affecting more than 300,000 people. People lost family members, their homes and their crops.

For farmers climate change is a threat to their livelihoods. Flooding and drought cause



Uganda floods, February 2010

# THE CHANGING?



**1** Sunlight passes through the atmosphere and warms the earth

**2** Some radiation (heat) given off by the earth escapes back into space

**3** High amounts of greenhouse gases in the atmosphere trap more heat which increases **GLOBAL WARMING**

AINED

## WATER-WHAT SHOULD WE DO?

We can conserve our water supply by collecting rainwater from our roofs. This water can be used for drinking and watering crops during dry periods. Collecting rainwater is a simple way to secure a clean water supply and helps preserve our precious groundwater. With a tank next to your house, there is less need to walk long distances to the well or the river. However, plastic tanks can be expensive, so it is important to find other ways of collecting rainwater.

Collecting rainwater from roofs in tanks, in our schools and homes helps safeguard our water supply

Climate change is making the rainy seasons less reliable

Climate change is causing periods of too little rainfall, followed by too much

### THERE ARE DIFFERENT TYPES OF RAINWATER COLLECTING TANKS



Corrugated iron water tank



Rainwater collection by tying a layer of matooke stem onto the matooke plant



Water tank made from woven reeds and plastered inside

## PROTECT YOUR WATER SUPPLIES -FROM FOREST TO TAP



*"Water is the primary medium through which climate change influences the Earth's ecosystems and therefore people's livelihoods and well-being."*

-UN Water.

**Water supplies** are at the heart of global climate change concern – insufficient drinking water on a warming planet will have dire consequences for humanity. The Kampala Statement on groundwater resources highlights the need to avoid the pollution of groundwater from bad wastewater management. Unpolluted groundwater is still a cheap and available source of clean drinking water.

### THERE IS AN URGENT NEED TO 'CLIMATE PROOF' WATER SUPPLIES: BY



- Better watershed management and erosion control services
- Organising payments to tree and forest owners to maintain tree cover to absorb rainwater into the 'water towers' of Uganda



- Encouraging water supply enterprises to engage in watershed conservation to maintain secure supplies
- Improving waste water pollution control to stop the contamination of drinking water sources, especially in Lake Victoria

## WATER-WHAT WE SHOULD NOT DO!

**Nakivubo Channel** is the main drainage channel from low lying areas in Kampala into Lake Victoria, which is also the source of Kampala's drinking water. The rubbish and pollution in this channel washes into Lake Victoria, polluting the water that people use to drink. More flooding, as a result of climate change, makes this situation worse, as sewage from pit latrines and markets in built-up areas gets washed away by the flood waters into the channel, which then flows into the lake.



Nakivubo Channel, Kampala

Keeping drainage channels clean is easy. Dispose of your waste in allocated rubbish areas, rather than on the road, from a car window, or where the rubbish will end up in our drainage systems.

**THE COST OF CLEANING UP THE MESS LATER IS FAR GREATER THAN TAKING ACTION TO PREVENT IT NOW!**

# COMING IN THE NEXT EDITION OF "CLIMATE SENSE"!



## SAVE \$\$\$ AND FUEL WITH AN ENERGY SAVING STOVE!



PEOPLE IN UGANDA ARE CONCERNED ABOUT THE INCREASING PRICE OF CHARCOAL AND THE ENVIRONMENTAL IMPACT OF ITS PRODUCTION. THOUSANDS OF TREES ARE CUT DOWN EVERY DAY TO PRODUCE THE CHARCOAL WE USE IN OUR STOVES.



Mr. Atuhairwe Godfrey

**Mr. Atuhairwe Godfrey, a boda boda rider, made a good decision to buy 2 energy saving Ugastoves. His financial situation has improved. The stoves have reduced his charcoal use by 50% and he is saving 16,000 UShs every month.**

**MR. ATUHAIRWE GODFREY SAYS "I WOULD HIGHLY RECOMMEND THESE STOVES!"**



**Energy Saving Stoves** have a metal outer jacket and a thick clay inner layer. The clay acts as an insulator, reducing the amount of heat lost. It also increases the amount of heat being transferred to the cooking pot, so food cooks faster.

There are now more and more energy saving stoves on the market. Although they may be more expensive to buy, they save up to 40% of the charcoal used in a metal or clay sigiri.

A medium size energy saving stove costs 15,000 UShs. The money saved from buying less charcoal will cover the extra cost of the stove in less than 2 months. These stoves are much safer to use and reduce the harmful smoke that affects women and children in kitchens.

MORE INFORMATION IN THE NEXT ISSUE



## UGANDAN MPs JOIN THE ACTION AGAINST CLIMATE CHANGE

In 2008, a group of Members of Parliament formed Africa's first Parliamentary Forum on Climate Change (PFCC).

The aim of the PFCC is to raise the profile and importance of climate change within Parliament, and to make sure climate change and the protection of the environment feature when new government policies are made. Members of the PFCC are committed to answering the concerns of people in their constituencies, who are now dealing with the effects of changing weather patterns and who have questions on the future of their livelihoods.

The Chairman of the PFCC, Hon. David Ebong – MP Maruzi Constituency Apac District says; *"Uganda needs to take climate change very seriously. More people must make the decision to use renewable energy like solar for electricity generation and alternative cooking fuel sources such as biogas. Ugandans need to turn to fuel-saving technologies, stop deforestation and instead plant trees for climate and economic resilience. The PFCC is pressing to create environmental policies, incentives for technology transfer and to make information about climate change available to people all over Uganda.*

*The PFCC is promoting a dialogue amongst stakeholders on issues like national and trans-boundary water resource management, land use reforms, food security and access to water that is both safe for drinking and a secure supply for crop irrigation.*

*Action is required to make policies that are sensitive to environmental concerns, and projects that offer solutions to environmental problems, attractive to Public/Private Partnerships, both at national and regional levels. As policy makers, Ugandans and Development Partners, we need to act now and save lives!!"*

### USEFUL CONTACTS AND INFORMATION:

#### National Environmental Management Authority (NEMA)

[www.nemaug.org](http://www.nemaug.org)

#### Practical Action

[www.practicalaction.org/home](http://www.practicalaction.org/home)

[www.practicalaction.org/water-and-sanitation](http://www.practicalaction.org/water-and-sanitation)

#### Joint Energy and Environment Projects (JEEP)

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