



## NILE BASIN DISCOURSE FORUM IN RWANDA (NBDF-RWANDA)

### NBDF RWANDA TO RAISE AWARENESS AND CAPACITY ON CLIMATE CHANGE ADAPTATION IN RWANDA

The Nile Basin Discourse Forum in Rwanda, in September 2009 started a six months project on “Building capacity and raising awareness for a sensitive community on climate change adaptation in Rwanda” . The



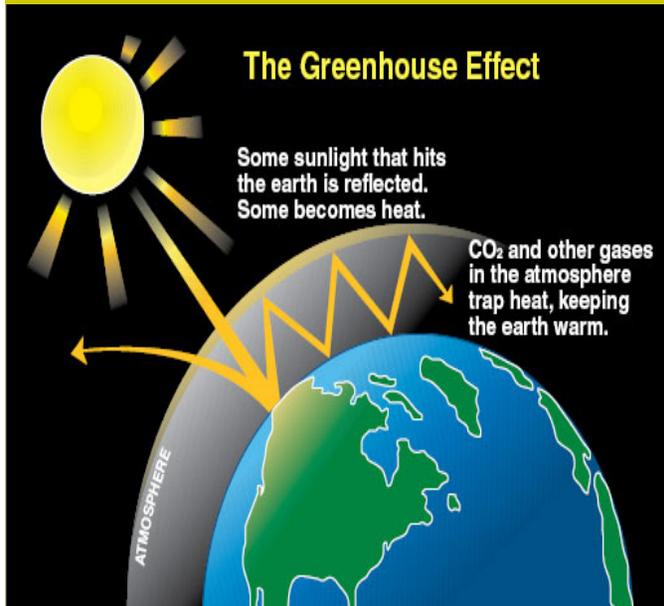
90,000USD project is funded by CC DARE from the Danish Foreign Ministry.

The project will involve Nile Basin Discourse Forum in Rwanda’s 30 NGOs working in the Nile Basin region of Rwanda, and all its stakeholders in various sectors.

#### The project seeks to achieve 3 main objectives:

To build capacity of Civil society Organizations on climate change adaptation, to provide adequate information by producing and disseminating awareness materials on climate change adaptation, document and disseminate best practices of climate change adaptation and vulnerability reduction among Rwandan CSOs.

### What are greenhouse gases and the greenhouse effect?



The greenhouse effect occurs as a result of greenhouse gases trapping the sun’s heat and keeping it close to the earth. Anyone who has parked a closed car in the sun for a few hours on a summer day has experienced something like the greenhouse effect. The “greenhouse effect” refers to how gases in the earth’s atmosphere naturally keep the earth warm, similar to how a greenhouse keeps plants warm, hence the name. The earth’s natural greenhouse effect keeps it about 60 degrees warmer than it would be otherwise. This enables us to live comfortably on earth.

For further information, contact:

**The Ag. National Coordinator, Mr. John GAKUMBA**  
**NBDF RWANDA**  
Opposite Amahoro National Stadium,  
P.O. Box 7216 Kigali-Rwanda  
Tel: 250 55 10 17 86,  
Cell : + 250 (78) 8307662  
Email : [coordinator@nbdfrwanda.org](mailto:coordinator@nbdfrwanda.org)  
Website: [www.nbdfrwanda.org](http://www.nbdfrwanda.org).

### Afforestation in Rwanda

Rwanda ’s most pressing environmental problem is deforestation, due to increased demand for household fuel wood as a source of energy by both rural population and low income earners in town. Other commercial products like



charcoal, timber, poles, medicine, food stuffs have greatly led to deforestation. Forests were also cleared in search for agricultural land and shelter for returnees, after the 1994 genocide in the country. This has had negative impacts on the environment such as, soil erosion, climatic changes and loss of biodiversity.

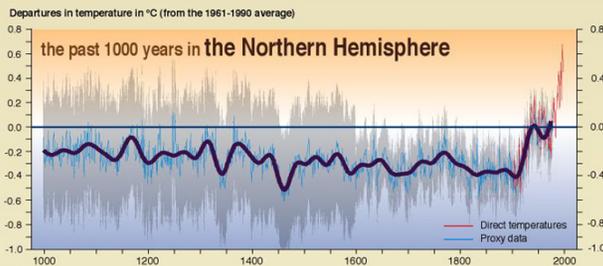
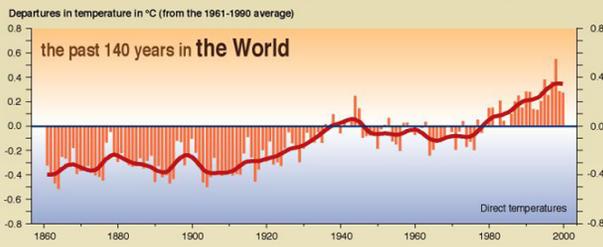
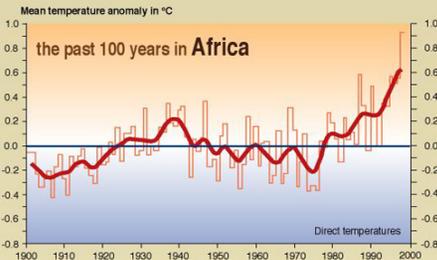


Environmentalists responded to tree planting as a necessary call to restore the lost forest cover in Rwanda . Selected seedlings are planted in all provinces of the country by environmentalists in collaboration with all stakeholders and local community. Forests like Gishwati Forest Reserve in the North, Akagera in the East are the most affected by deforestation.

*Gishwati Forest Reserve in northwestern Rwanda is one of the most severely deforested areas in the country.*

## Africa follows the global trend of recent increases in temperatures.

### Variations of the Earth's Surface Temperature for...



Sources: World Meteorological Organization (WMO), United Nations Environment Programme (UNEP), Climate Change 2001, Impacts, Adaptation, and Vulnerability, and Synthesis Report.

Observational records show that the continent of Africa has been warming through the 20th century at the rate of about 0.05°C per decade with slightly larger warming in the June-November seasons than in December-May (Hulme et al., 2001). By the year 2000, the 5 warmest years in Africa had all occurred since 1988, with 1988 and 1995 being the two warmest years. This rate of warming is not dissimilar to that experienced globally, and the periods of most rapid warming—the 1910s to 1930s and the post-1970s—occur simultaneously in Africa and the world.



### Nile Basin Discourse Forum represents African Civil Society Organizations on World Bank.

The Clean Technology Fund of World Bank's Climate Investment Fund, since August selected Mr. John GAKUMBA, the Ag. NPC of NBDF Rwanda to represent all African CSOs on the Fund Trust Committee. This is World Bank's Climate Financing body. The NBDF Rwanda coordinator is in charge of energy, transport, agriculture and industrial sectors. He is also the African Youth Youth Initiative on Climate Change Advisor and in charge of fundraising mechanism for the same network.

### Effects of Human Activity on Global Climate Change: What Do We Know, and How Do We Know It?

Human activities have significantly altered not only the chemical composition of Earth's atmosphere, but also the climate system. Identifying human effects on climate is a difficult statistical problem. "Fingerprint" methods are typically used for this purpose, involving rigorous statistical comparisons of modeled and observed climate change patterns. Fingerprinting assumes that each individual influence on climate leaves a unique signature in the climate record. Scientists use computer models to estimate the climate systems' response to different influences, and to perform controlled experiments that cannot be conducted in the real world, e.g., doubling levels of atmospheric CO<sub>2</sub> to see what happens.

One criticism of previous scientific assessments is that they have relied heavily on fingerprint studies involving changes in just one variable, namely the Earth's surface temperature. Recent fingerprint work, however, has looked at other climate variables, such as ocean heat content, stratospheric temperatures, surface pressure, and atmospheric water vapor. These studies illustrate that a human-induced climate change signal is identifiable in many *different* variables and geographic regions, and that the climate system is now telling us an internally- and physically-consistent story.

As the debate shifts, both in the scientific community and in the media, from "Is climate change real?" to "What should we do about it?", the results from these kinds of studies can help policymakers and citizens to make more informed decisions on responses and solutions to the climate change problem.

### What are greenhouse gases and the greenhouse effect? ....continuation

Although many "greenhouse gases" occur naturally, human activities have increased their levels and added new ones. Greenhouse gases of concern include carbon dioxide, methane, nitrous oxide, and fluorinated gases.

Scientists say that increased levels of these gases are contributing to climate change. Water vapor is the most abundant greenhouse gas, but human activity



isn't considered a direct cause of changes in its concentration. However, a warming atmosphere can trigger changes in water vapor levels. (NOAA) Some examples of activities that contribute to greenhouse gas levels:

- Burning fossil fuels – oil, gasoline, gas and coal
- Industrial processes and mining
- Landfills, septic and sewer systems
- Agricultural practices, including fertilizer and manure management
- Land use practices, including deforestation