



# Urgent Actions to Include Biochar in the “Post 2012” Climate Change Market Mechanisms

2<sup>nd</sup> Annual IBI Meeting  
September 8-10,  
Newcastle, UK



Goodspeed Kopolu  
UNCCD



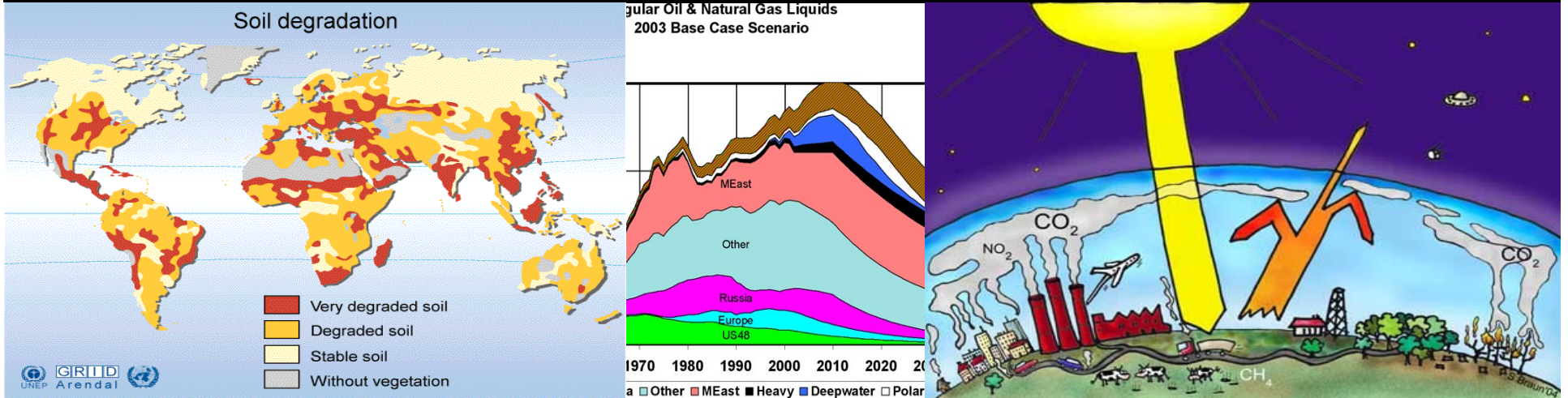
UNCCD

United Nations  
Convention to Combat Desertification



**biochar.org**  
BALANCE CARBON AND RESTORE SOIL FERTILITY

# Global problems



soil degradation

peak oil "Hubbert's Peak"

Climate change

in 2007

FAO's global **food price** index rose **40%**  
to the highest level on record

World **fertilizer prices** surge **200%**

International Center for Soil Fertility and Agricultural Development, IFDC

**Dedicating land to biofuels increases carbon emissions**

**• Corn-based ethanol doubles greenhouse gas emissions over 30 years**

Searchinger et al. 2008, Science

# UNCCD History

- One of the 3 Rio Conventions (1992)
  - were first thought to deal with climate change, biodiversity and desertification as separate issues
- However it turned out there are merely different facets of the same problem
  - Sustainable use of a finite resource
    - a) Climate Change (UNFCCC)
    - b) Biodiversity (UNCBD)
    - c) Soil


## UNCCD mission

- Sustainable Land management particularly in dry lands
- Increase agricultural productivity (World Food Summit Target)
- Help rural societies, find alternative livelihoods in the face of the vagaries of nature

**UN Millennium Development Goals**

# UNCCD discovery of the biochar solution

- BBC Terra Preta documentary
- Googled “Terra Preta”
- Found pioneers like Wim Sombroek, Wolfgang Zech, Bruno Glaser, Johannes Lehmann and Christoph Steiner



**THE SECRET OF EL DORADO**

It was the biggest wild goose chase in history: the Conquistadors' search for El Dorado, a fabulous kingdom of gold that Indians said lay somewhere in the Amazon jungle. But now at last, archaeologists have uncovered the truth behind that myth. They have found evidence of a huge society, as advanced as the Egyptians or the Incas, right in the heart of the rainforest. And this is more than the story of a lost civilization rediscovered. For it seems that the people of the real El Dorado possessed a secret - something with the power to transform our world.

**THURSDAY 19TH DECEMBER 2002  
9pm BBC2**

Produced and directed by DAVID SINGTON  
Associate Producer SARAH KINSELLA  
Photography NIGEL MEAKIN Sound JOHN PRITCHARD  
Film Editor HORACIO QUEIRO  
Graphics THE MONKEY EXPERIMENT  
Horizon Executive Producer MATTHEW BARRETT

**OX PRODUCTIONS**

**HORIZON**

Hardly any sink received so much support from the scientific community

# Biochar implementation

- Would address the UN Millenium Goals
- Why is Biochar Carbon Sequestration not being implemented?
- Why can Biochar Carbon be a CDM if it is burned but not if it is used as a soil amendment?

# Prospects

This would result in large financial flows for both mitigation and adaptation to developing countries where use of this technique would result in the highest returns, due to the high losses of SOC.

In order trade biochar carbon as a CDM:

**This option needs to be introduced by Parties through the UNFCCC Subsidiary Body for Scientific and Technological Advice (SBSTA).**

# Urgent actions

According to the IPCC biochar management would be a valid C sink

1. Inclusion of biochar in the CDM mechanism along with afforestation and reforestation (A/R).

2. Take into account the fact that biochar carbon sequestration is more permanent than than the potentially reversible (A/R).

Therefore we suggest:

- Revision of the additionality rules
- Increase the level of CERs that an annex I Party can use towards meeting the Kyoto Protocol targets



# UNCCD achievements

**africacarbonforum**

**September 03 - 05, 2008**

**Dakar - Senegal**



**Charcoal as  
Research**



**Carbon Negative Energy & Soil Restoration**

Christoph Steh  
Director General



# Voluntary Carbon Trade

In the meantime the voluntary carbon market (VERs) could provide financial support for biochar carbon sequestration

The voluntary market values social impacts, impacts on biodiversity and other environmental benefits

- Biochar Carbon Sequestration might profit from these additional values

Thank You