A "**Post G8/G20 Biochar Policy Roundtable**"

Thursday September 9th, 2010, 9:00am to 12:30pm
University of Toronto, **Faculty of Forestry, Earth Sciences Centre**
33 Willcocks Street, Toronto, fourth floor, room 4001

Hosted by:
The Biochar Offsets Group (BOG) http://www.linkedin.com/groups?mostPopular=&gid=2446475
and
The Global Issues Project http://www.scienceforpeace.ca/global-issues-project

The Roundtable included five [5] participants and about 2 hours of policy discussion focused on the issue of **Biochar in the context of Biofuels.** Each Roundtable participant was given about 5 minutes to state their opinions about each question that was posed.

These discussions focused on the **Energy and Environmental issues** surrounding and relating to the emerging Global **Biofuels** industry, and how Biochar could and should fit into that emerging industry in order to ensure sufficient long-term **soil productivity** to allow for a sustainable transition to a non-fossil hydrocarbon economy, which is part of the much discussed "Green Economy".

We are hopeful that this paper will be presented during the World Energy Congress, to be held in Montreal, Canada from Sunday September 12 to Thursday September 16, 2010.
http://www.worldenergy.org/news__events/world_energy_congress/default.asp

We had four [4] Very Complex issues to deal with.

These Policy Questions were framed in terms that we hoped would make clear the interrelationships between the issues. Some Questions included a short preamble and they were phrased in different ways so that they were more understandable to the audience members. Each question was given to the panel members beforehand so that they could think about their answers.

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The First Policy Question was:

1) Given the "Food vs. Fuel" issues that are linked to the production of energy from biomass,

What policies should be put in place by Governments, Financial Institutions or other bodies to **support the development of Pyrolysis technologies that will help to improve "Energy Resilience"** while continuing to support **Ecosystems**, which in turn will support Food System Resilience, Health and Biodiversity?

Put another way, How can mechanisms that provide support for the biochar industry help to support a Biomass energy paradigm shift in such a way that it helps to prevent some of the potentially catastrophic side-effects of a massive expansion of the biofuels industry – especially the effects **on food security, communities** and long-term **soil productivity**?

Answers included:

- We absolutely need **Ag Subsidies** for (at a minimum) **Biochar Research** (in the short term).
- We also need **Sustainability Standards** to be implemented. Continue this work under the IBI.
- The absolute best measure would be a **Carbon Tax**.
- Our first responsibility before attempting to seek any kind of International recognition under Carbon Trading or Regulation would be to **collect the Scientific Evidence**, otherwise legislators will not know enough. (This needs to be done **everywhere around the world**.)

The Second Policy Question was:

2) Given that Natural Gas is the primary feedstock for the majority of chemical Nitrogen fertilizers, And the availability of cheap and abundant **Nitrogen and Phosphorus fertilizers** (due to Natural Gas costs and availability and the 'Peaking' of Rock Phosphorus resources), along with the costs and energy requirements for the processing, transport and application of all of these resources to our soils is an issue of impeding Global importance to food security around the world, and given that There are also impeding limitations on the Inputs to Agriculture with respect to freshwater ***availability*** (for irrigation), which could clearly become stressed due to **Changes in Climate,** which can in turn cause changes in patterns of Precipitation, What policies should be put in place to **help deal with some of the issues of Costs for farmers**, especially considering that Biochar could play an important role in mitigating these pressures?

How can Biochar be brought into this Policy framework?

In other words**, How do we support farmers so they actually use biochar?** Will we need to?

In effect we are trying to answer the question:
How will all of the Biochar research that is required be done in time such that farmers will know enough to actually pay the additional costs to use Biochar at a time when their other costs are also increasing?

Answers included:

- Pushing for Policy ***before the data is available*** could be "dangerous".
- We need Policy that **encourages Distributed Production** of Biochar
- We ***cannot allow*** any Policies be implemented that **could cause a Food Shortage**
- Implement policies that encourage **Soil Conservation and Improvement** first
- Validate the use of Biochar using ***Best Management Practices*** (BMP)
- Use **Shared Capital** to set up **Pilot Projects**
- Governments **must subsidize the "Tools" needed to get this industry underway** (in the short term).
- Focus research on how Biochar affects ***phosphorus cycling*** in the soils, in addition to N (Nitrogen) and, to a lesser extent, K (Potassium).
    - The likelihood of a "***Phosphorus*** Peak" is imminent**

** see, for instance, the *book "The Coming Famine" by journalist and science writer Julian Cribb Julian Cribb & Associates*

The Third Policy Question was:

3) Biochar may be a key tool for use in **Remediation and Restoration of soils** and for use in **Buildings and the Design of Communities**.

Biochar might find its place in both **city** and ***country*** landscapes with regard to the recycling of "wastes", the use of Biochar in building elements such as ***Green Roofs*** and city landscaping as well as in wider-scale reforestation and landscape rehabilitation, for example, by helping to clean up and restore some of the devastation caused by the extractive industries (ex. Mining/Oil and Gas).
While not necessarily a local issue, Biochar might also help in reversing desertification in some parts of the world.

How can ***Policy*** work to help **encourage Biochar research** so that all or most of these various issues and possible Environmental and Climate mitigation techniques can be tested and implemented, and How can these policies work to help tackle issues related to the **existing built environment**, a **rising population** and some of the ***behavioral issues*** that affect what we can ultimately achieve?

In other words, considering the urgency of the situation, how can **more research, development and deployment [RD&D] be supported** over both the **short and the long term**, especially given that the recent global economic situation has created budget constraints on governments and businesses?

Answers included:

- Focus on large-scale **high-impact areas** like Tar Sands, Open Pit Mines, Strip Mining, Quarries and other very **highly degraded soils/areas** (where the vegetation has already been removed and the soils are poor or non-existent)
- **Orphaned Mine Land** and **Contaminated Land Regulations** are required (for ***post-use rehabilitation***)
- Seek out **Foundation support** for research during the early years
- We need a **Price on Carbon** eventually - should be ***greater than $100 per tonne (of CO2)*** to significantly advance our transition to technologies like Biochar
- Focus on **Forestry** as well as ***Agriculture***;
- We need to have worldwide government and business support for **Regional ICH**: ***Information ClearingHouse***, where Timely Research can be disseminated
- The ICH's can also act as ***intermediates*** where Institutions / Governments and Industrial Partners and "pair up" (to do the necessary research)
- We also need ***Community Initiated Projects*** with existing Institutions / Universities and **Institutional Partners (including Farmers)**
- We need to have the **Political Will** (to support this)

The Fourth and final Policy Question, a multi-part question, was as follows:

4) It has been said that the utilization of Biochar could possibly be a very important tool for the **mitigation of Global Warming** by deliberately sequestering and ultimately reducing the concentration of CO2 in the atmosphere while simultaneously reducing emissions of Methane and Nitrous Oxide from soils at the same time as it improves crop production and food security.

How could Biochar be linked into a system of "Carbon Accounting" and monetization given that each tonne of Biochar sequestered into soils may not necessarily be considered as an "offset" in the traditional sense (it is mostly not "offsetting" the production of fossil fuels, but is instead directly sequestering carbon that would otherwise return to the atmosphere as CO2)?

What is the role of existing governing bodies, corporations and financial institutions in assisting to create new markets and systems of monetization that integrate Biochar 'Offsetting' into Regional and Global Carbon Markets?

In other words, What might be the implications of the integration of Biochar 'Offsetting' into Regional and Global Carbon Markets or Monetary support systems [offsets and carbon markets], especially given that we should avoid using "human or animal food", "standing forests" or "the replacement of human food production with dedicated energy or biochar plantations"?

Answers included:

- Create Links to **Forestry**
- We must have a **30 year focus**: (This is the ***minimum investment timeframe*** we need to implement wide-scale programs like Biochar)
  (This is also the timeframe we have for **seriously dealing with Climate Change**)
- Focus should be on **Reduced Fuel Use**
- Look at **REDD****, this UN Process is Conservative

  United Nations Collaborative Programme on **Reducing Emissions from Deforestation and Forest Degradation
  http://www.un-redd.org/
  Note: In places like Cameroon, Kerosene is the most widely used cooking fuel*
  *But ***if the price of fossil fuels goes up*** and (and it cannot continue to be subsidized), **widespread and accelerated deforestation could result**, (with the consequent devastating effects on the environment and the climate)