



25 September 2009

US Senate Majority Leader Harry Reid Introduces "WECHAR" Bill to Develop Biochar Technology

On Thursday, September 24, 2009, US Senate Majority Leader Harry Reid of Nevada, and four cosponsors (Senators Max Baucus and John Tester of Montana, Senator Orrin Hatch of Utah, and Senator Tom Udall of New Mexico), introduced the "Water Efficiency via Carbon Harvesting and Restoration (WECHAR) Act of 2009." The bill establishes a loan guarantee program to develop biochar technology, initiates a program of biochar landscape restoration projects on public land, and authorizes a competitive grant program to fund research on biochar characteristics, impacts and economics.

In the face of climate change, drought is an ever growing problem in the Western US, exacerbated by water-sucking weeds like tamarisk (salt cedar), which can consume 200 gallons of water a day, per plant. These invasive weeds, along with other excess biomass in the form of beetle-killed trees, forests with dangerous fuel loading, and dense pinyon-juniper thickets that have invaded native sagebrush ecosystems, are ideal feedstocks for biochar. For more information see www.biochar-international.org/policy/unitedstates.

Updates on Biochar and the UNFCCC

In the run-up to the 7-18 December negotiations in Copenhagen, delegates to the UNFCCC have been struggling to reduce the number of decisions and pages of text under consideration. After the mid-August 2009 meetings in Bonn, considerable consolidation of many parts of the negotiating text had occurred, with more scheduled for the 28 September to 9 October negotiations slated for Bangkok. Since leaving Bonn, the UNFCCC Secretariat has been hard at work to reduce the text from hundreds of pages to 20 or 30 pages.

The [new AWG-LCA text produced by the Secretariat in advance of the Bangkok negotiations, released 15 September 2009](#), achieves additional consolidation and reorganization. Unfortunately, biochar is no longer specifically identified as an example of a mitigation option within the agricultural sector, although the broader language on sectoral approaches and mitigation options has been retained in an

appendix, now removed from the main body of the negotiating text.

IBI applauds the progress of the UNFCCC Secretariat and delegates in reorganizing the text and moving the process forward, but urges Parties to recognize that biochar, with its potential Gigaton-scale CO₂ removal and additional energy security and food security benefits, should not be overlooked in the process. There is a need to fund the remaining R&D and scale-up needs of this critical technology to achieve global deployment of biochar systems. With intensification of agricultural productivity having been identified as a critical means to feed a global population of 9 billion people in 2050, biochar can help to increase crop productivity while reducing chemical inputs; co-produce energy (thermal, for cooking or on-site use, or otherwise); and significantly reduce GHG emissions.

IBI Hosts Side Event at UNCCD COP9 in Buenos Aires, Argentina

Held on September 24, the side event entitled: "Biochar for sustainable mitigation of environmental degradation in agricultural lands," provided an introduction to issues of sustainable land management and the wider context for the need to address soil health and biomass constraints. The presentations critically evaluated biochar systems that generate multiple value streams for improving livelihoods in degraded and desertified lands and also provided a broad overview and introduction into the opportunities and constraints of the potential of biochar for drylands.



The event began with a presentation by Sergio Zelaya (UNCCD) who covered the framework for biochar systems with a discussion of sustainable land management, food insecurity, and water scarcity in drylands and introduced a road map for further exploration. Dr. Lehmann (Cornell University) presented scientific evidence of biochar opportunities, constraints to its application, and future research and development priorities. Finally, Nathaniel Mulcahy (World Stove) provided a survey of different cookstoves that are being developed at present and highlighted an example of a biochar stove system.

Biochar Included as an "Innovative Approach" in just-released UNEP Climate Change Science Compendium 2009

The UNEP Climate Change Science Compendium is a review of some 400 major scientific contributions to our understanding of Earth Systems and climate that have been released through peer-reviewed literature or from research institutions over the last three years, since the close of research for consideration by the IPCC Fourth Assessment Report (to see the full Compendium, go to <http://www.unep.org/compendium2009>).

On pages 50 and 51 in Chapter 5, Systems Management, biochar is highlighted as "an innovative approach to soil carbon sequestration" that "may offer a low-risk and very efficient way to mitigate climate change and replenish soil fertility. The concept involves producing biologically derived charcoal, or biochar, and

incorporating it into soils". To read the remainder of the section, please see:
http://www.unep.org/compendium2009/PDF/Ch5_compendium2009.pdf

In Memoriam: Biochar Pioneer Geoff Moxham

IBI is very sad to report the passing of Geoff Moxham, one of our most creative and vibrant biochar pioneers. Geoff Moxham was the production team coordinator of Project 540: Biochar Kiln Designs for Small Farms (<http://www.biochar-international.org/Project/540>). Based in Lismore, NSW, Australia, Project 540 is developing open-source small kiln designs for homes and farms. The design group chose the generic name of Phoenix for the line of kilns they are working on because, as Geoff said: "What else rises from the ashes? Why charcoal, for one, and perhaps convivial human planetary life for another."



IBI board member Stephen Joseph attended school with Geoff and shares these memories: "Geoff was renowned for his smoke bombs at high school and he and I used to concoct evil brews together in our science classes. He was a pioneer in a range of renewable energies and was involved in a developing sustainable community in Northern New South Wales. He was also a great teacher and inspired many younger people to follow a path of sustainability. He was a presenter at the May Biochar conference in Australia and was working to get local manufacture of small biochar kilns underway."

Family, friends and associates are committed to carrying out Geoff's biochar kiln projects as he would have wished. Donations in Geoff's memory can be sent to the Project 540 sponsor: Lismore Rainforest Information Centre, through Commonwealth Bank - BSB: 062 565, Account number: 10112562. All donations will go directly to the biochar project. For more information about Geoff's life and work, see his website: www.BodgersHovel.com.

Practitioner's Profile: 20 Years of Biochar in Costa Rica

By Gabriela Soto and Stephen Joseph

Two decades ago, a volunteer from Japan named Shogo Sazaki brought a powerful combination of technologies to Costa Rican farmers: bokashi and biochar. Bokashi is a composting system that uses an inoculum of micro-organisms known to improve soil health called EM (Effective Microorganisms). Biomass and minerals are reacted with the microbes to make bokashi. Adding biochar to the bokashi mix provides habitat and support for the microorganisms. It's a winning combination, producing a superior fertilizer for organic farming. [To read the full story, please see the IBI website.](#)



Join the IBI Advisory Committee

IBI is looking for your input in updating its Advisory Committee.

The IBI Advisory Committee is a group of about 20 members that serve as a review board for IBI materials, as potential contacts for reporters and other members of the press, and as advocates for biochar and IBI.

During the fall of 2009, IBI is looking to bring in new members for the committee from around the world representing different specialties, different organizations and institutions, with a focus on gender balance and a balance between industrialized and developing countries. Committee members will be asked to serve at least one 18 month term and will be encouraged to ideally serve 2 - 3 terms as desired. If applicable, members will be invited to serve on the science committee for the international IBI conference if it falls within their term.

Visit the IBI website for [more information on the committee](#) and how to submit your name or a colleague's name for consideration.

IBI Announces 2010 Conference Dates

IBI is pleased to announce that the 2010 International Biochar Initiative Conference will be held September 12 - 15 (with possible field trips the 16 - 18) in Rio de Janeiro, Brazil. As it is available, more information will be posted on the IBI website.

Upcoming: the Northeast Carbon-Negative Network, a regional biochar group based in the US, will be having a full one day conference, The Promise of Biochar, Friday, November 13, 2009 at the University of Massachusetts in Amherst. [For more information and to register, please visit the conference website.](#)

Looking for Biochar Research?

One of the highlights of IBI's new website is a searchable bibliography that is constantly updated with new and existing information. You can search by title, author's name, type of publication, or year. If you don't see something there, please send it to us to add to this database. We are working to include as many entries as possible and now have almost 300. To visit the bibliography go to: www.biochar-international.org/biblio.

Regional Updates

Spochar, based in Spokane, Washington, United States

Spochar recently had a biochar celebration. While making approximately 700 pounds of future biochar, the group learned more about their kiln (produced more smoke/steam than anticipated). This information gave them valuable insights on feedstock differences, and on regulatory response, and prompted great discussions on kiln design and how better to lay in the feedstock. Photos from the event as well as more information will be posted soon. In the meantime, feel free to contact [Phillip Small](#).
