

# Tying it All Together: the IAI Business & Development Plan



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# Tying it All Together: IAI Business & Development Plan

## *Key challenges:*

- Continued engagement and collaboration between research community and commercial ventures: symbiotic relationship
- Demonstration projects: developed and developing countries

# Tying it All Together: IAI Business & Development Plan

- Goals and Roles of the IAI
  - IAI Goals: Draft 5-Year Plan
  - Proposed IAI Roles:
    - Information Sharing
    - Coordination
    - Outreach and Promotion
    - Fundraising

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## *Next session:*

Wrap-up and Next Steps for the IAI  
(4:00-5:30 pm)

- IAI Structure
- IAI Financing
- 2007 Conference Outcomes

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## IAI Draft 5-Year Plan

(see handout in Conference Bags)

### IAI Goals: within 5 years...

- Develop in-depth understanding of benefits of char for developed, developing country applications
- Develop international research plan and program to understand fundamental science of char in soils
- Initiate or support 20 major char demonstration programs globally

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## IAI Draft 5-Year Plan

(cont'd)

### IAI Goals: within 5 years...

- Raise \$2M per year to support char efforts/projects in developed, developing countries
- Build membership of IAI to 200 organizations

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## IAI Draft 5-Year Plan

### Year One Milestones:

- Plan, implement 2007 IAI Conference
- IAI website, advisory board, membership/participation
- Prepare IAI Program Plan
- Raise initial financial support

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## Year One Milestones: (cont'd)

- Begin planning 2008 conference
- International R&D program/plan to understand benefits of char in different environments
- Create Technical Committee, oversee R&D projects funded by IAI
- Initiate Bio-char/Agrichar book production

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## IAI Draft 5-Year Plan

### Year Two Milestones:

- Sign up 50 member organizations
- Publish book
- Initiate international R&D program
- Implement 2007 Conference outcomes, recommendations

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## IAI Draft 5-Year Plan

### Year Two Milestones: (cont'd)

- Funding proposals for demonstration projects
- Initiate 5 major demonstration projects, globally
- Review projects, program at 2008 Conference
- Begin planning 2009 Conference

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## IAI Draft 5-Year Plan

### Year Three Milestones:

- Sign up 100 member organizations
- Initiate 10 major demonstration projects, globally
- Implement major independent evaluation of projects, program
- Implement 2009 Conference

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## Year Three Milestones: (cont'd)

- Release major results of projects at 2009 Conference
- Major funding effort, using data from existing projects
- Initiative revision of first publication

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## Year Four Milestones:

- Provide technical, project management support for ongoing projects
- Produce monitoring report of projects
- Organize 5-Year IAI Conference

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## IAI Draft 5-Year Plan

### Year Five Milestones:

- Publish data on understanding benefits of char in developed, developing countries
- Initiate/support initiation of 20 major demonstration projects, globally
- Raise \$2M/year to support projects
- Sign up 200 IAI members
- Implement 5<sup>TH</sup> Annual IAI Conference: "The Success of Agrichar"

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## IAI Draft 5-Year Plan

COMMENTS?

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## Proposed IAI Roles:

- Information Sharing
- Coordination
- Outreach and Promotion
- Fundraising

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## IAI Role #1: Information Sharing

- **What:** Share information among participants, other interested parties
- **How:** Website
  - IAI description, background
  - IAI participants or members
    - links to participants/members websites
      - Johannes Lehmann – bio-char website @ [http://www.css.cornell.edu/faculty/lehmann/biochar/Biochar\\_references.htm](http://www.css.cornell.edu/faculty/lehmann/biochar/Biochar_references.htm)
      - Cristoph Steiner – bio-char website @ [www.biochar.org](http://www.biochar.org)

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## IAI Role #1: Information Sharing (cont'd)

- Calendar of activities
- Projects and research: description, outcomes, contacts
- Bibliography: by topical area
- Committees or working groups
  - Membership, activities

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## IAI Role #1: Information Sharing

- Country Coordinators/Country Initiatives
  - UK Initiative
  - Australia – “Char Group”
- IAI White Papers/Position Papers
- IAI brochures
- IAI publications and/or newsletter
- Develop IAI “template” PowerPoint presentations
  - Basic IAI information, activities, goals, roles
  - Allow for easy adaptation by members, participants
- IAI Annual Report: activities, accomplishments

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## IAI Role #2: Coordination

- **What:** Coordinate activities of IAI
  - Develop a comprehensive research plan
    - Key research issues identified at this conference
    - Facilitate project identification, development; identify partners; aid in raising funding
    - Project assessment, reporting

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## IAI Role #2: Coordination

- **What:** Establish a sustainable agrichar accreditation system
  - rules and guidelines
  - Key endorsements
  - Promote in key venues (eg. CDM Board)

## IAI Role #2: Coordination

- ***What:*** Establish an agrichar classification system

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## IAI Role #2: Coordination

(cont'd)

- Identify commercial, pre-commercial needs, developments for agrichar
  - Key management issues identified at IAI conference
  - Report on developments, accomplishments
- IAI Conferences, workshops

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## IAI Role #3: Outreach, Promotion

### ■ **What:**

- Develop formal and informal linkages and partnerships with like-minded organizations and individuals;
- Raise IAI profile, goals within other forums
  - 25x25 Alliance
  - International Sustainable Development Organization – seeking a partnership with IAI
  - CEFARD – Center for Agricultural Resources International Development ([www.CEFARD.org](http://www.CEFARD.org))
    - “Global poverty alleviation through agricultural resources and development tools, mostly in developing nations”
    - Skills training: sustainable agriculture, rural community development and capacity-building

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## IAI Role #3: Outreach, Promotion

- **What:** Follow, Participate in Appropriate Forums
  - Promote IAI & IAI goals, members, products
  - Ensure policies are supportive, enabling of IAI goals and products
  - E.g., UN and other global Forums
    - UNFCCC, Kyoto Protocol and its Successor(s)
      - Articles 3.3 and 3.4 of Kyoto Protocol
      - Domestic policies, programs
        - EU
        - Canada, Japan, New Zealand
    - Convention on Desertification
    - UN Millenium Development Goals
      - 1. Eradicate extreme poverty and hunger
      - 7. Ensure environmental sustainability

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## IAI Role #3: Outreach, Promotion

- UN Security Council (4-24-07 NYT Editorial)
  - British government
  - Links between strife, global warming, hunger
  - “In mountainous areas of the Philippines, for instance, deforestation, soil erosion and depletion of soil nutrients have increased poverty and helped drive peasants into the arms of the ... insurgency.”
  - “The potential impact (of climate change) on food output is a particular concern: in semiarid regions where water is already scarce and cropland overused, climate change could devastate agriculture.”

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## IAI Role #3: Outreach, Promotion

- Clinton Global Initiative
  - Energy and Climate Change Commitment Focus Area
    - Virgin Group of Companies – committed \$3B over 10 years; includes investments in renewable energy initiatives, with an early focus on biofuels
    - Joshua Fink, ENSO Capital Management – committed \$50k and personal time and resources “to support and work with an organization whose aim is to address deforestation in the developing world...”
- Regional, state initiatives on climate change

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## IAI Role #3: Outreach, Promotion

- **What:** media, press outreach
  - Conferences, meetings
  - Projects, research developments, findings
- **How:** IAI participants or members
  - Those already engaged in other fora
  - Working groups or committees
  - IAI ambassadors – coverage of issues, reporting to IAI
  - Develop an IAI Speakers Bureau
    - At least one IAI spokesperson/speaker per region, country, metropolitan area

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## IAI Role #4: Funding Support

- **What:** Support for IAI initiatives, projects
- **How:** Federal: 'top down'
  - Legislatures/legislation
    - 2007 Farm Bill
    - Agricultural Energy Program Improvement Act of 2007
      - to be introduced soon in US Senate; may be the subject of a hearing and markup in the Agriculture Committee as early as *this week*
      - Energy, Renewals Fuels R&D, Conservation, and Research Titles of the Farm Bill (authorizing legislation for 2008-2012)

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## IAI Role #4: Funding Support

- \$30M per year to assist in the purchase of pyrolysis and thermochemical conversion systems;
- \$200M per year for Biomass R&D – including development and deployment of feedstocks, development of diversified energy crops and production systems, and biorefinery and conversion technologies;

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## IAI Role #4: Funding Support

- \$175M per year for Feedstock Residue Management Program: any land conversions for biofuels production must ensure the protection and enhancement of soil quality, prevention of soil erosion, nutrient leaching and run-off;
- \$10M per year for R&D Grants for Bio-char production systems: “competitive grants to eligible entities to assist in paying the cost of R&D to develop and commercialize bio-char production systems on multiple scales, including on a single farm, local community, and cooperative scale”;

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## IAI Role #4: Funding Support

- \$300M in mandatory funding for Renewable fuels R&D – including a section on “methods to sustainably increase agricultural and forestry crop energy yields while enhancing environmental benefits, in particular, improving soil quality and air quality”; and
- “bio-char, animal agricultural residues, and other potential non-fossil-fuel-based, renewable fertilizers to integrate energy production or agricultural management practices with enhanced soil quality and long-term carbon sequestration”;

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## IAI Role #4: Funding Support

- Direct payments to producers (max \$10k per producer; program funding determined by participation) for “value-added and renewable energy enterprises”...that “add value to an agricultural product (including...soil amendments such as bio-char, bio-oils, or bio-gases)”...
- Specifically adds bio-char demonstration projects as eligible for support under various Farm Bill conservation programs (up to \$20M per year), and the “use of bio-char to generate agricultural credits for carbon trading.” Includes 1 page of identified “high-priority research and demonstration” activities for support, including sections on bio-char production and commercialization; bio-char behavior in the environment; and economic and life-cycle analyses.

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## IAI Role #4: Funding Support

- \$2B per year for a conservation program that will include “installation of bio-digesters or bio-char production units”;
- Tax credits – TBD
- \$20M per year for “High-priority Research and Extension Initiatives”, including: “Bio-char research: research grants to promote bio-char technology for adding charcoal or biomass-derived black carbon to soil to improve soil fertility, nutrient retention, and soil carbon sequestration; and the movement of the technology from a pre-commercial to a fully-commercialized state.”

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## IAI Role #4: Funding Support

- **How:** Federal agencies “bottom up”: e.g. in-house and extramural research programs
  - Departments of Agriculture, Energy, Environment
  - Take on discrete parts of research program

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### IAI Role #4: Funding Support

- **How:** Venture Capitalists
  - National Venture Capital Association and PriceWaterhouseCoopers
    - 1st quarter of 2007, venture capitalists invested \$7.1 billion into start-ups in U.S.
    - Highest quarterly figures since the 4th quarter of 2001 @ \$8B
  - Vinod Khosla – co-founder, Sun Microsystems
    - Has been investing in US agriculturally-based renewable energy projects, demonstrations (ethanol)
  - Kleiner Perkins Caufield & Byers (Menlo Park, CA) technology investment firm
    - opening offices in Shanghai and Beijing
    - plan to invest \$360M in Chinese internet, energy, media and communications start-ups

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## IAI Role #4: Funding Support

- **How:** Philanthropic Foundations and Grant-making Organizations
  - Agriculture
    - sustainability, profitability, environmental impacts
  - Clean, renewable energy
  - Environmental Issues
  - Rural development
  - Global climate change
- **How:** For-Profit Organizations
  - Corporations, industry, and their foundations
    - Agribusiness
    - Energy producers

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## Summary of Proposed IAI Roles:

- Information Sharing
- Coordination
- Outreach and Promotion
- Fundraising