

Sustainable Intensification — A Key to Linking Knowledge-based Agriculture to Global Climate Discussions

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ClimateCHECK

(www.climate-check.com)



- Innovator with established track-record in climate change and clean tech markets.
- Develop end-to-end business and market infrastructure solutions.
- Help clients develop tools, people, strategies and solutions (GHG management handbooks, GHG training, carbon revenues, sustainability assessment, standards development, etc.).
- Enable clients to identify returns, develop executable plans, gain strategic advantage, lead the sector.
- *Benefits for business and environment — Double Dividend.*



Interactive Standards



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- Contextual collaborative development and intelligent templates (structure, requirements, guidance, tasks, process).
- Tracking/auditing (text, comments, questions, surveys, votes, checklists, members, resources).
- Project management (tasks, process, checklists).
- Management reporting (Gantt charts, comment summaries).
- **Three levels of interaction:**
 - **EXPERT/PROCESS:** highly configurable, contextual collaborative authoring, process control, transparency;
 - **STANDARDS LIFE CYCLE:** integrated system from planning to applications/transactions to continuous improvement;
 - **SYSTEM/Framework:** scalable frameworks to accommodate expansion, support interoperability and harmonization to gain synergies among standards. 

Agriculture and Climate Change

- Involves ‘sustainable intensification’ — more food per unit land to achieve economic, environmental, and social objectives.
 - Balancing food production and economic development and environmental quality to:
 - Achieve increased yield at lower costs, while
 - Greatly reducing or eliminating environmental degradation, by
 - Harmonizing with biogeochemical processes of Earth.
- Sustainable intensification is a challenge shared by agriculture practitioners in developed and developing regions.
 - A metric to assess progress to meet challenge?
 - Minimize GHG emissions per unit food.



Agriculture and Climate Change

- Sustainable intensification, to promote climate change and food security, is knowledge-intensive instead of input-intensive.
 - Build capacity of farmers to manage cropland and livestock for higher productivity, but with greater efficiency of use of water and nutrients.
 - Use knowledge of biology and genetics to enable improved crop varieties and better farming practices, and enhanced livestock management.
- A key element of knowledge-intensive agriculture is appropriate decision-support.
 - Planning with professional advisors, or with well-trained coaches;
 - Implementation according to rigorous standards, with sufficient testing and record-keeping to document practices are effective.



Vision 2050 (WBCSD)

outlines a pathway to reach a sustainable global society by 2050, in which 9 billion people live well and within the limits of the planet.

- **A 21st century version of the Green Revolution.**

- Improved agricultural practices and new technologies, including doubling of agricultural output per amount of land or water used

- **Productivity gains allow a 50% increase in food supply without jeopardizing the environment.**

- Research and development have resulted in new biofuels

Biofuels contribute 30% of transport energy needs, of which half come from agriculture and the remaining half from forests and other forms of biomass.



“Humanity has largely had an exploitative relationship with our planet; we can, and should, aim to make this a symbiotic one.”

**Michael Mack, CEO Syngenta
(Vision 2050 Co-Chair)**

How can C-AGG help?

- The discussions at ARDD in Cancun demonstrate science-based and knowledge-intensive agriculture is under-represented in global discussion of agriculture with respect to climate change.
- Some C-AGG members have capacity to add the science-based perspective to global discussion.
- C-AGG could help representatives of global agribusiness to build bridges with current participants in global discussions.





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