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McCormick, Kes

2010

Link to publication

Citation for published version (APA): McCormick, K. (2010). *Bioenergy at Climate Negotiations: Visions, Challenges and Opportunities*. Paper presented at World Bioenergy 2010: Conference & Exhibition on Biomass for Energy, Jönköping, Sweden.

Total number of authors:

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**PO Box 117** 221 00 Lund +46 46-222 00 00



# BIOENERGY AT CLIMATE NEGOTIATIONS: VISIONS, CHALLENGES AND OPPORTUNITIES

McCormick, K. International Institute for Industrial Environmental Economics (IIIEE) at Lund University PO Box 196, 22100 Lund, Sweden

ABSTRACT: This paper provides observations and commentary on how bioenergy was presented and communicated at the 15<sup>th</sup> Conference of the Parties (COP 15) held in Denmark in December 2009, including the main conference and side events as well as "unofficial" parallel events and activities. We can learn significantly from the experiences of COP 15 in regards to how to develop and present visions for bioenergy, the major challenges confronting the expansion of bioenergy, and the near-term opportunities for the bioenergy industry. With the 16<sup>th</sup> Conference of the Parties (COP 16) to be held in Mexico in November 2010, this paper contributes to a better understanding of how the bioenergy industry can influence policy-makers, attract media attention, and engage the general public and key stakeholders in a constructive dialogue to take full advantage of the potential of bioenergy to contribute to climate mitigation and adaptation. At COP 16 we need "to make it all happen".

Keywords: bioenergy industry, public awareness, climate change, political legitimacy, stakeholder involvement

#### 1 INTRODUCTION AND BACKGROUND

The 15<sup>th</sup> Conference of the Parties (COP 15) held in Denmark in December 2009 was a dramatic global event on climate change that culminated in the Copenhagen Accord. While there are strong differences of opinion on whether or not COP 15 and the Copenhagen Accord can be considered a "step in the right direction" or an outright failure, as well as who should do what and when, nothing has changed regarding climate science. A rapid transformation of our economies and societies towards low or zero carbon systems remains a fundamental requirement for reducing the effects of global warming over the next century.

COP 15 attracted thousands of delegates and representatives from industry, government, academia, and civil society from around the world – many of which attended COP 15 to actively put forward visions and strategies for the future. *In this context, we can ask what profile did bioenergy have at COP 15?* This paper provides observations and commentary on how bioenergy was presented and communicated at COP 15 – both the official activities and the many "unofficial" events organised around the climate negotiations. Much can be learned from these experiences and applied at the 16<sup>th</sup> Conference of the Parties (COP 16) to be held in Mexico in November 2010.

This paper talks about the bioenergy industry in relation to climate negotiations. But what is the bioenergy industry? The bioenergy industry refers to a myriad of organisations and networks that are directly (and indirectly) involved in bioenergy resources, systems and technologies. Such organisations and networks cover a number of sectors, including energy, agriculture, forestry and the environment, as well as different spheres, such as government, industry and academia. The bioenergy industry does not "speak" with a unified voice. However, on the national level, the bioenergy industry is often represented by associations, such as the Swedish Bioenergy Association, and on the international level, the recently established World Bioenergy Association (<u>http://www.worldbioenergy.org/</u>). This organisation has taken a leading role in promoting bioenergy on the international "stage".

### 2 OBSERVATIONS AND DISCUSSION

The most significant document prepared and presented at COP 15 was the position paper by the World Bioenergy Association based on a commissioned report entitled "Global Potential of Sustainable Biomass for Energy" [1]. This position paper and report highlight the very large potentials for bioenergy estimated by some studies. The "danger" with these estimated potentials is they are based on a range of assumptions that are under intense debate, such as land availability. Importantly, the position paper and report discuss the major challenges for expanding bioenergy, namely direct and indirect impacts on land use, as well as the overall sustainability of bioenergy and the need for robust certification schemes [2]. It is "smart" of the World Bioenergy Association to not only raise these issues in such documents but also show that the bioenergy industry is actively working with them.

Kent Nyström of the World Bioenergy Association argues "There is a lack of awareness of the enormous potential of bioenergy worldwide both among politicians, the media and the public" [3]. There is indeed a lack of public awareness of bioenergy technologies and potentials, as well as the benefits of sustainable bioenergy systems that can go far beyond energy supply and include significant opportunities for regional development. Raising the profile of bioenergy in the public "consciousness" is very important. However, far greater resources will have to be invested by the bioenergy industry to achieve this goal.

COP 15 involved hundreds of side events and exhibits – a number of which focused directly on bioenergy, and others which were relevant to the bioenergy industry. The Climate Consortium Denmark and the Danish Agriculture and Food Council organised a side event called "Bio-based Society: A Sustainable Future based on Agriculture, Biotechnology and Resource Management" [4]. This event tackled the issues of increasing population and climate change through presentations on the role of agriculture and biotechnology to produce food, energy and materials. The challenge of reducing fossil fuels while at the same time producing more food for the growing population was debated. This type of event appears to be important to work through these major issues.

Another side event at COP 15 entitled "Renewable Energy and Climate Change Abatement" organised by IEA Bioenergy and IEA Renewable Energy Technology Development, involved a presentation by Uwe Fritsche on better use of biomass for energy [5]. This presentation discussed a range of issues, including land use change and increased production of biomass for energy purposes. But there was also a strong point on how to maximise GHG emissions reductions from bioenergy, including the option to connect bioenergy systems with Carbon Capture and Storage (CCS) to produce "negative" carbon emissions. Overall, the presentation suggested that more stringent climate change policy will drive a better use of biomass for energy. The bioenergy industry should support such strong policy and continue to work towards more sustainable bioenergy systems.

A range of parallel events, seminars and activities were organised in Denmark and its close neighbour Sweden in the lead-up to COP 15. Of particular interest was the largest alternative NGO meeting, called the Peoples Climate Summit (http://klimaforum.org/). At the summit a number of themes were very relevant to bioenergy, including "Sustainable Energy Technology and Energy Systems" and "Sustainable Agriculture and Forestry" [6]. This type of NGO event is likely to grow at COP 16 and perhaps receive greater media attention. The Peoples Climate Summit concluded with the statement "systems change not climate change", which suggests the NGO movement is looking for more "radical" shifts in our societies and economies. What role bioenergy can play in such visions and discussions deserves some attention - at the very least to avoid confrontations and "listen" to concerns about bioenergy from the NGO sector.

Lund University in Sweden hosted a number of events related to COP 15. The workshop on "Governance for a Low-Carbon Society" organised by Atomium Culture (<u>http://atomiumculture.org/</u>) focused on how the emerging low-carbon society can be governed [7]. There are a number of points from this workshop relevant for bioenergy. First, Atomium Culture actively works with universities, businesses, governments and newspapers. The inclusion of newspapers highlights the important role of the media and communication in establishing a low-carbon society. Second, bioenergy was a major topic of discussion in relation to meeting sustainability goals. Again, we see the importance of institutions, policies and schemes that can ensure sustainable bioenergy systems. Third, CCS was on the agenda, and the link to bioenergy systems was also discussed and highlighted. This point about the synergy between CCS, bioenergy and producing "negative" carbon emissions should be more actively communicated by the bioenergy industry to the media and key stakeholders.

COP 15 started with worldwide attention (and enthusiasm) about defining a strong global agreement but this did not eventuate. Joelle Brink for Biofuels Digest (<u>http://www.biofuelsdigest.com/</u>) perhaps best summarised the reactions from the bioenergy industry at COP 15 by saying that the first week of negotiations was promising with the UN assurance that bioenergy would be a priority in renewable energy plans. However, in the second week the UN negotiations stalled and resulted in a small group of nations (USA, China, India, South Africa and Brazil) developing the Copenhagen Accord with many other countries dissenting – "leaving the real work for Mexico in November 2010" [8]. It seems fair to argue that COP 16 will be under even greater "pressure" to move the climate negotiations forwards.

#### **3 CONCLUSION AND REFLECTIONS**

This paper perhaps asks far more questions that it answers? However, the main point is to raise discussions on how to improve the profile of bioenergy at major climate negotiations, especially the up-coming COP 16 to be held in Mexico in November 2010. This paper concludes with some reflections and suggestions for action. Many of these points could be debated and need to be further developed so as to make them more concrete and practical.

Showing potentials is very important, but a major challenge for the bioenergy industry is to put bioenergy technologies and systems, and the overall potentials of bioenergy, into tangible contexts. In other words, it is vital to document and present functioning "real-life" bioenergy systems. This includes both case studies of specific places, and country studies that show the development of bioenergy over time.

Working with all actors engaged in promoting renewable energy only strengthens the position of bioenergy. The decision of the WBA to join and support the International Renewable Energy Alliance (http://www.ren-alliance.org/) shows that there is cooperation between bioenergy and other renewable energy. There is little doubt that we will need all renewable energy to make significant reductions in GHG emissions and replace fossil fuels.

Engaging with cities and regions should be a priority for the bioenergy industry at COP 16. Thousands of representatives from cities and regions attended COP 15. Cities and regions can often implement far more "radical" plans to reduce GHG emissions compared to nations, but they need help to find "solutions". Bioenergy, in all its forms, can really contribute to cities and regions in their efforts on climate change.

Learning from how the Copenhagen Accord was brokered is important to all actors working on climate change, including the bioenergy industry. The group of nations that really developed the Copenhagen Accord included China, India, the USA, South Africa and Brazil. This is a particularly interesting group of nations in respect to bioenergy, since they all have growing bioenergy sectors. Brazil, in particular, is a global leader on bioenergy.

Enhancing communication activities and key collaborations in the lead-up to COP 16 is vital to successfully lifting the profile of bioenergy. Communication and stakeholder involvement are on the agenda more than ever for the fast-growing bioenergy industry. Avoiding major confrontations on controversial issues, such as sustainability certification schemes and land use changes, requires greater efforts on engagement with diverse actors.

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## **5** ACKNOWLEDGEMENTS

This paper is part of a research effort entitled "The emerging bio-economy: Investigating the role of communication and stakeholder involvement" which is funded for 2010-2013 by the Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning. Visit the interactive *bio-economy blog* (http://bio-literacy.blogspot.com/) to follow the progress and developments of this work, make comments, and ask questions.