

revised draft 19 Jun 2008

MEETING SUMMARY

CSLF Capacity Building Task Force Meeting Cape Town, South Africa 13 April 2008

Prepared by the CSLF Secretariat

LIST OF ATTENDEES

Australia: John Hartwell, Martin Squire, John Kaldi,

Clinton Foster, Aleksandra Kalinowski

Canada: Stefan Bachu, Bill Reynen

European Commission: Derek Taylor, Jeroen Schuppers

France: Christian Fouillac, Pierre Le Thiez, Claudia Vivalda

India: Ishraq Ahmad, Laxman Prasad Mexico: José Miguel González Santaló

Netherlands: Harry Schreurs
Norway: Jostein Dahl Karlsen
Saudi Arabia: Abdulmuhsen Al-Sunaid
United Kingdom: Rachel Crisp, Nick Otter

United States: Judd Swift (Task Force Chairman), Victor Der,

George Guthrie, Robert Gentile

CSLF Secretariat: Barbara McKee, John Panek, Richard Lynch

IEA GHG: Tim Dixon

MEETING SUMMARY

1. Welcoming Remarks

Task Force Chairman Judd Swift of the United States called the meeting to order and welcomed France as the newest member of the Task Force.

2. Approval of Meeting Summary from Calgary Meeting

The Meeting Summary from the previous Capacity Building Task Force meeting, in November 2007 in Calgary, Canada, was approved as final with no changes. The CSLF Secretariat will post the finalized minutes to the CSLF website.

3. Review of Previous Workshops

John Panek of the CSLF Secretariat gave a short presentation that summarized previous CSLF Capacity Building workshops. Three have so far been held, in Pittsburgh (United States) in May 2007, Porto Alegre (Brazil) in October 2007, and Al Khobar (Saudi Arabia) in January 2008. Each of the Workshops featured different themes concerning carbon capture and storage (CCS), with the Pittsburgh workshop being oriented toward coal and the Al Khobar workshop oriented toward commercial aspects of oil and gas. The Porto Alegre workshop was oriented toward both coal and oil and gas. All three

workshops featured expert speakers who provided information on different aspects of carbon capture and storage, including comparison of different types of potential CO₂ storage formations, monitoring and verification of storage, technology costs, source-sink matching, technology roadmaps, risk management, and legal/regulatory/societal issues.

The following points were made in the ensuing discussion:

- The three previous workshops have resulted in a strong interest from Brazil to continue this kind of activity. There will be another Capacity Building workshop in Brazil later in 2008.
- Two European programs, CO₂ GeoNet and CO2NET, each have significant capacity building and training elements. CO2NET targets workers rather than researchers.
- There needs to be additional participation from more CSLF Member countries.
 Only a few CSLF Member countries have participated as instructors at Capacity Building workshops. These workshops should perhaps be aimed at more than just developing countries.
- Obtaining funding for these workshops is a continuing issue. The CSLF is not a
 funding organization, but it or its Member countries will still have to find a way to
 get workshop participants travel money to attend.

4. Review of CCS Training provided by non-CSLF Entities

A briefing paper on this topic had been prepared by Stefan Bachu of Canada prior to the Task Force meeting, and has been made available at the CSLF website: http://www.cslforum.org/documents/CapacityBuildingAnalysisBachu0408.pdf

Dr. Bachu, in his briefing paper, noted that:

- Two other organizations besides the CSLF have provided training in CCS APEC, which sponsored a series of three workshops, and the IEA GHG Summer School.
- Decision and policy makers in government and the private sector have different needs for education and training than researchers and technical staff. As a result, the Capacity Building Task Force has made a near-term priority the development of a CCS training set aimed specifically towards this audience.
- The worldwide need for training in CCS is growing and there is insufficient capacity (experts) and resources (funding) for providing this training, particularly in developing countries.

Among the objectives of the Capacity Building Task Force is the development of educational resources that all CSLF members can use. Because capacity building is needed for both policy and technical people, Dr. Bachu, in his paper, recommended that two sets of materials be developed:

- A half-day-long set aimed at government and private sector decision and policy makers. This material that should present the need for CCS, the benefits of CCS, the potential for CCS, and the barriers to large-scale implementation.
- A two-day-long set aimed at technical professionals and middle management.

The following points were made in the ensuing discussion:

- Consideration should be given to develop the set of materials for high-level decision makers first. Technical people need the support of decision makers or they cannot accomplish anything.
- "High-level decision makers" means from both industry and government.

- Above all, workshops and training should be focused on individual country needs and should therefore be influenced by desires of the host countries.
- Training materials for capacity building in CCS will be very useful. A repository of such materials will be useful, but they need to be kept up to date. The CSLF website would be a good place for this, and the CSLF Secretariat should take charge of this activity.
- As a first step, there is a need to identify the topics to be covered. The CSLF Secretariat should do this, and then take on activity of identifying CCS experts who could cover them. This would be a big undertaking.
- The following Task Force members volunteered to provide regional perspectives to the Secretariat that will help in the preparation of any "curriculum" for capacity building:
 - Australia (John Kaldi)
 - Canada (Stefan Bachu)
 - Netherlands (Harry Schreurs)
 - United Kingdom (Rachel Crisp) policy perspectives only

Judd Swift stated that he will ask Marcelo Ketzer of Brazil to provide the Latin America regional perspective.

5. Discussion of Planned Future Activities

Judd Swift noted that planning was already underway for three additional Capacity Building Workshops:

- Mexico, July 2008
- Brazil, September 2008
- United States, November 2008

Robert Gentile, representing the United States Carbon Sequestration Council, provided some details about the United States workshop, which will be held in Washington, D.C., in conjunction with the GHGT-9 meeting. The concept for the workshop is that a roadmap or curriculum of key lectures relevant to capacity building training would be developed from the overall conference schedule, and workshop trainees would attend these lectures. There would also be an opening and closing lecture, plus evening events. Mentors would also be available, and the registration fees for workshop trainees would be waived. However, workshop trainees would have to arrange their own airline transportation and hotel accommodations.

The following points concerning the November workshop were made in the ensuing discussion:

- Consideration should be given to developing two different curricula for the workshop trainees one for technical people and one for policy makers.
- Untrained participants would be attending lectures that could possible be challengingly advanced. For that reason, it might be wise to invite people who already have some relevant knowledge.
- Much in the way of logistics still needs to be worked out. Individual countries
 might want to invite targeted individuals. The letter of invite would need to come
 from inviting country, and subsequent letter providing details about the workshop
 would come from Secretariat.

• Tim Dixon of the International Energy Agency Greenhouse Gas R&D Programme (IEA GHG) stated that IEA GHG will be working with Robert Gentile and colleagues to assist with this capacity building element for GHGT-9.

José Miguel González Santaló of Mexico stated that the Mexico workshop will be held in Cuernavaca (about 50 miles south of Mexico City). It will be a two-day workshop with the first day focused on Mexico's needs, with presentations about projects of interest to Mexico. The second day will be more oriented towards CCS technology in general. Mr. González was asked to provide additional details to the Secretariat when they are available.

Mr. Swift will contact Brazil's delegation to obtain details on its workshop.

A Capacity Building Workshop is also being planned for India, but India's delegation does not yet have any information concerning details or dates. India was asked to supply this information to the Secretariat when it is available.

6. Discussion of Two-Year Plan and Beyond

Several attendees at the meeting offered opinions on what the Task Force could try to accomplish in the future.

- Rachel Crisp of the United Kingdom stated that the Task Force should start to move on to what else needs to be done to build capacity around the world. Given that commercial structures are important to influence industry, how do we get from where we are now to where companies will work together to create new businesses and new markets that do not yet exist?
- Judd Swift mentioned that the Task Force should advise and provide recommendations to the CSLF Policy Group's new Strategic Plan Task Force.
- Victor Der of the United States stated that one question that ought to be asked, concerning this Task Force, is "What is definition of success?" It might be necessary for this Task Force to develop its own strategic plan.

7. New Business

There was no new business.

ACTION ITEMS ARISING FROM TASK FORCE MEETING

Item	Lead	Action
1	Secretariat	Post finalized minutes from Calgary meeting to CSLF website.
2	Secretariat	Develop a repository of capacity building training materials at the CSLF website.
3	Secretariat	Identify topics to be covered by these training materials and identify CCS experts who could cover them.
4	Australia, Canada, Netherlands, United Kingdom	Provide regional perspectives that will help in preparation of a "curriculum" of training materials to the Secretariat.
5	Chairman	Ask Brazil to provide a Latin American regional perspective to the Secretariat.
6	Mexico	Provide details concerning its July 2008 Capacity Building Workshop to Secretariat.
7	Chairman	Obtain details on Brazil's planned Capacity Building Workshop.
8	India	Provide details concerning its proposed Capacity Building Workshop to Secretariat.