



CCS - Africa

CCS: A Capacity Building Effort in Africa

CARBON CAPTURE AND STORAGE IN SOUTHERN AFRICA

ECN- NETHERLANDS
EECG BOTSWANA
EMU-MOZAMBIQUE
DRFN-NAMIBIA
SANERI SA



OUTLINE

- BACKGROUND
- KEY MESSAGES
- FOLLOW UP WORK
- WHAT THE PROPOSAL IS ABOUT
- WORKPLAN
- ORGANIZATION



WORKSHOP SUPPORT

- **FINANCE**

- SHELL
- STATOIL
- UK Dept OF BUSINESS ENTERPRISES & REGULATORY REFORM
- NORWEGIAN MINISTRY OF FOREIGN AFFAIRS

- **RESOURCE PERSONS**

- UNFCCC
- IPCC
- IEA
- EC
- MEWT – BOTSWANA



SALIENT POINTS FROM THE WORKSHOP

- MARKET FORCES FOR CCS NOT YET THERE- NEED TO TAKE TECHNOLOGY INTO THE MARKET
- THERE IS A NEED TO GET MORE CLARITY ON THE COST OF THE DIFFERENT CCS OPTIONS
- RISKS AND LIABILITY FOR MONITORING AND ACCOUNTING OVER LONG TIMES
- **MORE CAPACITY BUILDING ON CCS IS NECESSARY- ALSO DEVELOPING A DETAILED ATLAS OF SUITABLE SITES IN AFRICA WOULD BE USEFUL**



SALIENT POINTS FROM THE WORKSHOP

- IF CCS CAN BE ALIGNED WITH AFRICAN PRIOROTIES, AFRICA SHOULD GRAB THE OPPORTUNITY TO IMPLEMENT IT.
- NEED TO ASSESS CO2 STORAGE POTENTIAL-IN ENHANCED OIL/GAS RECOVERY OR ENHANCED COAL-BED METHANE IN SOUTHERN AFRICA.
- CDM ONLY INCENTIVE FOR CCS
- EARLY DEMONSTRATION PROJECTS IN AFRICA REGION COULD HELP BUILD MORE CONFIDENCE AND **DEVELOP THE GOVERNMENTAL CAPACITY TO REGULATE CCS**
- **FURTHER OPPORTUNITIES TO HOLD SIMILAR FORUMS TO SHARE EXPERIENCES AND MONITOR PROGRESS TOWARDS CCS**



FOLLOW UP-ON

- LOW LEVELS OF AWARENESS AND TECHNICAL CAPACITY ON CCS OUTSIDE SOUTH AFRICA.
- UNKNOWN GEOLOGICAL STORAGE CAPACITY
- NO REGULATORY FRAMEWORK FOR CCS



PROPOSAL OBJECTIVES

- BUILDING FURTHER CAPACITY AND RAISING AWARENESS FOCUSED ON BOTSWANA, NAMIBIA AND MOZAMBIQUE
- QUICK SCAN OF CO₂ STORAGE POTENTIAL
- PROVIDING REGULATORY CAPACITY BUILDING TO RELEVANT GOVERNMENT BODIES



APPROACH & TASKS

THREE PHASES

- **PHASE I-PROVIDE BROAD AWARENESS AND KNOWLEDGE BUILDING-**
 - WORKSHOP FOR SHARING EXPERIENCES BETWEEN INTERNATIONAL EXPERTS & NATIONAL STAKEHOLDERS-
- **ACHIEVE WORKING PROGRAMME (NEEDS AND POSSIBILITIES) FOR EACH COUNTRY**



TASKS CONTD

- **PHASE II-IMPLEMENTATION OF WORKSHOP OUTCOMES-**
 - FURTHER AWARENESS AND CB- ON GEOLOGICAL STORAGE, CAPTURE TECHNOLOGY AND REGULATION
 - QUICK SCAN BY NATIONAL, SA, EU PARTNERS- RESULTING IN ATLAS FOR EACH COUNTRY
 - REGULATORY CB- FRAMEWORKS FOR SAFE AND PERMANENT CO2 STORAGE + INCENTIVES FOR CCS
 - MSC, PHD AT SA UNIVERSITY
 - CB ON CDM DNA, PDS- PIN TO PDD
 - STUDY TOUR TO EUROPE- EXCHANGE



TASKS CONTD

- **PHASE III-**

- MINISTERIAL CONFERENCE TO PRESENT RESULTS, UPDATES ON DEVELOPMENT OF CCS;
INTERNATIONAL CLIMATE POLICY-
IDENTIFY CONCRETE CCS PROJECTS;
INVOLVE INVESTORS

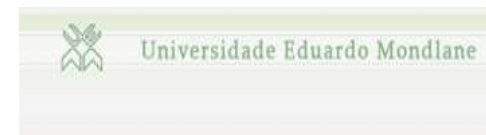


- The project is planned to run over two years.
- Aim is to start on April 1st, 2009.

	2009		2010				2011
Task	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Phase I: First workshops			A				
Phase II: Implementation				B		C	
Phase III (optional)							D
4 Project management	I			II			III



PROJECT PARTNER REFERENCES



<i>Institute</i>	<i>Project role Phase I</i>	<i>Researchers involved</i>
ECN	Project coordination Presentations at workshops	Tom Mikunda Heleen de Coninck
EECG Consultants	African project coordination Full organisation and reporting of workshop	Peter Zhou
Eduardo Mondlane University	Full organisation and reporting of workshop	Boaventura Cuamba
Desert Research Foundation	Full organisation and reporting of workshop	Robert Schultz
SANERI	Presentations at workshops	Tony Surridge

In addition, the IEA Greenhouse Gas R&D Programme, the World Bank, the German Geological Survey and the UNFCCC have shown interest in participating and contributing expertise to the project.



This workshop

Provide information about CCS directly from international experts

Bring stakeholders together on the issue

Explore potential relevance of CCS for Mozambique

Identify potential further steps in terms of knowledge, capacity and regulatory development



THANK YOU

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