International Risk Governance Council
Chemin de Balexert 9
CH-1219 Châtelaine
Geneva
Switzerland
www.irgc.org

Contact : Christopher Bunting, General Secretary (christopher.bunting@irgc.org)

IRGC submission to the UNFCCC

Regarding Carbon Capture and Storage as a Clean Development Project Mechanism

- The International Risk Governance Council (IRGC) is a foundation based in Geneva, Switzerland, whose mission is to anticipate, understand, and develop recommendations for the risk governance of emerging, global systemic risks. We do so through project work involving international partnerships of experts drawn from government, industry and academia. Further information on IRGC, including the memberships of our Board and Scientific and Technical Council as well as information describing our sources of income, may be obtained from our website www.irgc.org.

- In 2006 IRGC began work on a project focusing on the regulation of deep underground storage (sequestration) of captured carbon dioxide (CO_2). The project objectives are the development and evaluation of a number of possible alternative regulatory frameworks and the synthesis from them of proposals for an international regulatory framework for CO_2 capture and storage (CCS) risk governance.

- CO_2 capture and storage (CCS) is an option for mitigating climate change through reducing atmospheric emissions of CO_2 from large point sources. The current and forecast use of fossil fuels is extensive, and means of decarbonising their use are needed as a matter of urgency.

- IRGC thus feels that it should be possible for CCS projects to be included under the Clean Development Mechanism (CDM), provided appropriate modalities and procedures for considering CCS projects are established. However, questions arise about whether the emission reductions as a consequence of CCS are measurable and predictable with sufficient certainty. Although there are remaining unknowns, the level of existing knowledge in the field of site selection and characterization, risk assessment and management, and monitoring techniques is substantial, and should not be downplayed. Bringing CCS under the CDM should be done in a careful manner, and the approval processes should be designed in such a way as to allow for flexibility of improvements as the knowledge and experience on CCS increase.

- CCS has specific characteristics that distinguish it from other mitigation options. The IRGC therefore recommends that specific modalities and procedures for CCS should be developed, analogous to the procedures that allow for the appropriate inclusion of AR-or small-scale projects in the CDM. The IRGC recommends that, since the responsible inclusion of CCS in the CDM is an urgent matter, the time between COP/MOP3 and COP/MOP4 is used to develop a draft of these modalities and procedures.

- Features of CCS which may be viewed as important include:

    i. The possibility of very large volumes of CO_2 storage, enabling a significant reduction of world CO_2 emissions;
    ii. The geologically long lifetimes, tens of thousands of years, foreseen for storage;
    iii. The relative 'permanence' of CO_2 avoidance by CCS compared to established CDM projects such as fuel-switching, or afforestation;
    iv. The possibility to differentiate between different styles of CCS: e.g. separation of CO_2 associated with methane gas production, CO_2 storage from fuel combustion, or CO_2 storage via Enhanced Oil Recovery;
    v. The large cost of projects, which are beyond the ability of many developing countries - potentially requiring a different CDM budget to attract new types of industry participation and enable independent technical assistance to referee licensing and site assessment;
    vi. The need for high-technology long-timespan monitoring, which may need to be funded by a project developer rather than the nation state; and
    vii. The need to remove risk from the developing country, which may require novel forms of long-term financial bond, or insurance, from the project developer

- If a positive decision on including CCS in the CDM has been taken at COP/MOP4, a CCS Working Group composed of technical experts should be created under the CDM Executive Board, similar to the Afforestation and Reforestation Working Group. This group would:

    i. Further develop modalities and procedures, containing minimum performance CCS project standards relevant to CDM. These can be updated as experience with CCS grows.
    ii. Approve or reject every project (similar to AR Working Group), in addition to approvals required by the executive board.
    iii. Ensure transparency of project approval, making all project-related documents public according to normal CDM procedures.

- CCS should be made a separate sectoral scope of accreditation, meaning that only Designated Operational Entities (DOEs) that have demonstrable knowledge on CCS should be accredited to validate and verify CCS-based CDM activities.

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