A Guide to Impacts Appraisal

Providing recommendations for the appraisal
of environmental impacts from potential CO_2 leaks.

Rationale

→ With appropriate characterisation, design, construction and monitoring leakages from storage sites are unlikely

→ However it will be necessary for operators to demonstrate they have considered potential impacts, have mitigated the risks and are capable of appropriate monitoring and remediation.

→ RISCS is examining worst-case (but credible) scenarios for leakage impact to provide stakeholders a framework for impact appraisal

A Guide integrating RISCS' key results:

➡ WP1: Descriptions of reference environments and scenarios

➡ WP2: Assessments of impacts in marine environments
  ➡ Results from experiments
  ➡ Field observations

➡ WP3: Assessments of impacts in terrestrial environments
  ➡ Results from onshore injection in Norway
  ➡ Results from ASGARD
  ➡ Field observations – Florina, Montmiral, San Vittorino, Latera

➡ WP4: Results from simulations
  ➡ WP4.1 Terrestrial
  ➡ WP4.2 Marine

➡ And other project and published results as appropriate

GIA – What should it do?

➔ Inform key stakeholder groups on specific issues:

  ➔ What to consider when appraising potential impacts in the event of leakage from a storage site;

  ➔ How to evaluate the potential impacts at the various stages of a storage project development: design stage, construction, operation, post-injection and to enable transfer of site liability to the competent authority;

  ➔ Options for directly assessing the potential scales (temporal and areal, realistic leakage ranges (fluxes, masses)) and ecosystem responses.;

  ➔ Options for identifying, predicting and verifying the nature of impacts.

GIA – What should it do?

→ The GIA is therefore a key mechanism for delivering RISCS outputs

  → To inform and influence stakeholder groups

  → To move storage impacts assessment from theoretical to (more) practical considerations

  → To provide focus for discussions both internally and externally on how the results from RISCS can be applied to storage projects

Output

→ A high-quality, well-illustrated and user-friendly report will be produced

→ Intermediate versions of the Guide will be produced, both for making results from the project readily available and to test and refine the Guide itself through the feedback obtained on its initial versions

→ Each version will supersede and extend the previous version

→ The Guide will be developed through close consultation with key stakeholder groups at a series of workshops

Approach

➔ We are now in an initial phase of the Guide development, seeking consultation with the different stakeholders for its development

➔ Today we would like to get your suggestions as to what information would be important for people to find in the Guide

Discussion and exchange groups

→ We will break out into groups to discuss some possible leakage scenarios and their potential impact and then we come back and share the discussion in plenary

→ A group facilitator will take care of you and explain which specific situation you need to consider

→ Each group also needs to (quickly) choose a reporter who will briefly summarise the group's considerations to plenary

The groups

➔ We will have 6 groups, each one of them will pretend to be a different stakeholder

➔ Facilitators will tell you "who you are": operators rather than laymen, etc.

The situation is:

➔ A storage site is leaking...

➔ What do you think it could happen?

➔ What information would you look for?

➔ What would you need to know to deal with the problem?

➔ What information you feel is needed to understand the potential impacts?

What happens now?

➔ Thank you for your inputs today

➔ We will collect and assimilate the information.

➔ We will use this information to help shape the next version of the Guide.

➔ If you would like to comment on the next version please contact:

  ➔ Jonathan Pearce: jmpe@bgs.ac.uk

What happens now?

➔ The final version is due for release in October 2013
➔ We will be seeking further comments and input at future workshops.