Friday 17 April

Breakout session 1:

Bridging the gap between research and farmers: Data and modeling

Models and data are needed to facilitate appropriate information to policy decision makers and ultimately to farmers and landholders. To this extent clearly defined purpose and scale are critical.

1. What kinds of data and models are needed for policy decision makers?

- Identify key policy questions
- Parsimonious / minimalistic
- Logical / applicable / transferable
- Science-based and testable
- Filtering (relevant vs irrelevant data) and appropriate dynamic baseline data (inventories, institutional data, gaps)
- User-friendly, (IG) / understandable
- Harmonious / standard / generic approaches to data collection and modeling

2. How can these be developed and tested?

- Explore / build on existing technologies
- Science-based and testable
- Parameterizing of the system (biophysical and socio-economic , policy relevance)
- Data sharing (available institutional data, new data)
- Participatory data collection
- Program/run the model and linking the model to existing databases
- Policy relevance of model results
- Model validation:
    - Internal
    - External
    - Robustness / sensitivity analysis
- Liaising with policy-makers to ensure the model answers their questions
- Iterations, refinements
- Scientific peer reviewing

3. Communication

- Tailor to target audiences
    - To policy makers, including donors
    - To the scientific community (peer review)
    - Education
    - Farmers and landowners
    - Media

4. How can the outcomes be most efficiently transmitted to farmers and landholders? i.e. what is the decision path?

- Identifying the institutional structure and appropriate communication channels
- Field experimentation
- Training and capacity enhancement
- Extension
- Flexibility for adaptation to institutional / policy changes

5. How can models and data facilitate feedback along the decision chain?

- Models and participatory data collection need to be sufficiently flexible to facilitate feedback and model refinement

6. What are the take home messages from current advances in technology?

- Recent advances in remote sensing technologies provide immediate and cost-effective access to data collection and model building and testing
- Development of IT has made data sharing more accessible (global climate and soil data, etc.)
- Significant developments in rapid resource appraisal leading to improved baseline knowledge and information
- Improved policy-relevant models for example better informed decision-support models
- Participatory process easier