Financing Mitigation from agriculture in developing countries

Wendy Mann
Senior Advisor
Natural Resources Management and Environment Department
Food and Agriculture Organization of the United Nations
Context

- Agriculture up international agenda but financing unlikely to be available.

- Climate change resources a source of new and additional funds for sustainable AG development (through NAMAs)?

- Agriculture may be mentioned in Copenhagen outcome document but probably not in prominent way. Better understanding of interdependence of AG-CC goals needed.

- Challenge: adequate reflection of AG and AG-responsive financing mechanisms in outcome document, to enable timely post-Copenhagen action on mitigation with co-benefits.
Agricultural mitigation
Main opportunities

- Technical potential, especially soil carbon sequestration
- Development and environment co-benefits, mitigation/adaptation synergies
- Importance to successful mitigation in other sectors (REDD)
- Avoidance of perverse outcomes
Agricultural Mitigation
Main challenges

- Main financing mechanisms exclude AG (Voluntary market better)
- Some forms of mitigation from AG not cost effective for international compliance markets (low returns, high transactions costs or high risks)
- Farmer adoption of mitigation options.
- Difficulties and high costs in measuring, reporting, verification and crediting, due to complexity, diversity, lack of data, leakage and permanence
C Finance Opportunities

CAP&TRADE C MARKET

- 64 US$ Billion
- 30 US$ Billion
- 10 US$ Billion

OFFSETS 14 US$ Billion

Ag/forestry

Figures from the State and Trends of the Carbon Market, several issues World Bank
VOLUNTARY CARBON MARKET

US$ 331M in 2007

OTC

US$ 90M in 2006

CCX

18% Forestry, Soil

4% Livestock

46% soil carbon

Data from the State of the Voluntary Carbon Market, Ecosystem Marketplace and New Carbon Finance, 2008
What changes are needed for financing mechanisms?

- To tap mitigation potential of agriculture, changes in policy, institutions, & technologies required; mitigation financing just one component of a broader set of instruments.

- Broaden scope of existing financing mechanisms (e.g. CDM) to include soil carbon sequestration.

- Need new financing mechanisms with broader, more flexible approaches, multiple funding streams (public/private, ODA/CC), and innovative payment/incentive/delivery schemes to reach producers, including smallholders.
What specific design elements for financing mitigation from AG?

Much is known about mitigation from agriculture, but risks/uncertainties remain and we have little field experience in financing and crediting mitigation from agriculture;

Based on experience with PES, possible design elements might include:

- Incentives responsive to farmer decision-making
- Aggregation and up-scaling for simplification and cost-effectiveness
- Phased/differentiated approach
- Towards a comprehensive land use sector
Incentives responsive to farmer decision-making

Factors/barriers influencing farmers adoption of mitigation options:

- **Opportunity costs** (temporary or permanent loss of revenue, savings, status)
- **Lack of capital/credit** (transaction costs, investment)
- **Risk aversion** (changes in pricing, regulation,)
- **Lack of information**
- **Property rights**
- **Enabling environment**

Requires regulation and payment systems that include:

- **Front-loaded payments**, simplified rules, reduced transaction costs
- **Use of insurance/bonds/sector no-lose approaches** for risk reduction and flexibility
- **Recognition of community/individual**; formal and informal property rights
- **Institutional/capacity building**

What buyers want also important (Low cost; low risk, payment on delivery) **Important to find middle ground.**
FIGURE 7
Barriers to the adoption of improved management practices:
permanent decrease in farm income

A
Permanent decrease in yield

New management practices introduced

Net loss to farmer

Time

Baseline net income

Current net income

Yield

B
Permanent increase in management costs

New management practices introduced

Net loss to farmer

Time

Source: FAO, 2007c.
FIGURE 8
Barriers to the adoption of improved management practices: information and investment constraints

A  Information barrier to adoption

New management practices introduced

Baseline net income

Net benefit to farmer

Time

B  Investment barrier to adoption

New management practices introduced

Baseline net income

Current net income

Temporary net loss to farmer

Time

Source: FAO, 2007c.
Aggregating/up-scaling for greater cost-effectiveness and simplification

- bundling/upscaling activities of large numbers of farmers

- ways of measuring at larger scale for greater cost-effectiveness (programme of projects, sector, region, practice-based defaults)

- more simple accounting and crediting of agriculture management/land-use changes
Combining multiple funding streams with a phased approach

Potential funding sources:
- Carbon markets (compliance and voluntary)
- Public sector (voluntary/new climate change fund?)
- Carbon labels/certification schemes?
- ODA
- valuing (premium) mitigation options generating multiple benefits and mitigation/adaptation synergies

Phasing:
- transitioning from publicly funded phase to build confidence, capacity and national strategies through to phase with quantified emissions reductions, incentives from market mechanisms and based on the use of robust MRV methodologies
- gives time for field testing new measurement methodologies, payment schemes, gathering data and looking at food security and sustainable development implications of specific agricultural mitigation options.
...incorporating a differentiated approach

Different funding streams, modalities, levels of MRV methodologies used by different groups of countries.

- **LDCs**: public sector funds through NAMAs, priority to options with mitigation/adaptation synergies, simpler methodologies, lower transaction costs, frontloaded payment schemes (These countries may never transition to compliance markets)

- **Emerging economies**: combination of funding sources through NAMAs, carbon markets to reduce national level emissions and build more sustainable agricultural systems.

- **Developed countries**: carbon trading, to meet emissions targets, conserve and restore resources.
Terrestrial Carbon approach

○ Comprehensive approach to terrestrial carbon in all land uses: enables management of synergies and trade-offs

○ National level terrestrial carbon baseline includes: (i) all terrestrial carbon pools (soil and biomass, above and below ground for related GHGs) or (ii) all terrestrial carbon pools, but with a separate account for those that are already regulated under a national REDD baseline.
Making Agriculture part of the Copenhagen outcome

1) Advocacy from agricultural community essential for:
   - An outcome that enables ag. mitigation and co-benefits to be realized
   - Financing mechanisms are key

2) Cooperation between Ministries of Ag. and Environment
   - Effective way to get ag. concerns into negotiations
   - Both can call for early action to test ag.-relevant approaches to strengthen confidence and readiness
   - Stress interdependence of goals

3) Identification of action for inclusion in NAMAs within ongoing AG sector policy/planning