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United Nations Climate Change Talks

Mitigation Side Event

EXPERIENCE WITH THE CLEAN DEVELOPMENT MECHANISM IN THE AGRICULTURAL SECTOR - China

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Recent Initiative

International Seminar on Application of Clean Development Mechanism (CDM) Facility in Agricultural Sector:

Household Biogas and Conservation Tillage

Held in Beijing, China, on 10-11 May 2010

100 participants from UN agencies, Chinese governmental agencies, NGOs, universities, research institutions & the private sector attended

Organized by UNAPCAEM in partnership with the Department of Climate Change of the National Development and Reform Commission of the People's Republic of China (NDRC) & the Institute of Environment and Sustainable Development in Agriculture, Chinese Academy of Agricultural Sciences (IESDA-CAAS)

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CDM Feasibility Study Rationale

- Growing potential for CDM projects in the agriculture sector to reduce GHG emissions & promote sustainable agricultural practices and technologies

- The study assessed rural household biogas & conservation tillage

Household Biogas

Household biogas production is a priority in China – about 20 provinces meet minimum criteria for developing household biogas projects, i.e.

- suitable year-round ambient air temperature
- high coal utilization
- high volume of suitable livestock under household management (cattle; pigs; chickens)

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Conservation Tillage

- China is keenly interested in promoting the development of CT
- Plans are to more than double the area devoted to CT during the 11th five-year plan 2006-2010 with a target exceeding 4.0 million ha
- Huge potential for soil carbon sequestration

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Key Outcomes of CDM Feasibility Study (1)

Household biogas

- One-plus-Three system: one digester plus innovations in toilets, kitchens and animal enclosures
- 40 million biogas digesters by the end of this year – over 200 million households supplying raw material
- Potential biogas production by 2015 could exceed 23.0 billion cubic meters
- Supply of biogas digesters affected by cost and lack of sufficient subsidies
- Addition of a CDM project enhances economic returns

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Key Outcomes of CDM Feasibility Study (2)

Conservation Tillage

- reduces energy consumption
- reduces environmental pollution
- reduces GHG emissions

When properly practiced, addresses both food production and environmental protection

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Conclusions

- CDM projects can be developed in CT to help increase carbon stocks, reduce fossil fuel consumption and GHG emissions & improve sustainable natural resources mgmt
- Relatively large potential for CDM project implementation, certainly in China but throughout the Asia-Pacific region
- ESCAP will continue to play a role as a regional platform for policy in sustainable agriculture and poverty reduction
- There is a need to identify PPPs for advancing CDM projects in the agricultural sector, for China and throughout the Asia-Pacific region
- Increasing calls for a 2nd **Green** Revolution & implementation of low carbon agriculture initiatives

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The 2nd "Green" Revolution would

- explore sustainable **green** farming technologies that increase food production, optimize agricultural input use, minimize environmental damage and production costs & increase family farm incomes ensuring sustainable livelihoods for rural households
- design more efficient agricultural commodity marketing & processing systems that reduce costs and yield greater benefits for both producers and consumers

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Why low-carbon agriculture ?

- Climate change is having a significant impact on sustainable global agriculture production, productivity and consumption
- The successful adoption and utilization of low-carbon technologies in the production and marketing of agricultural goods and services will reduce carbon emissions and mitigate changes to the climate
- But production & marketing of low-carbon agricultural goods and services is associated with relatively higher costs…compared to fossil fuels before price surges beginning 2007
- As renewables become more cost competitive vis-à-vis fossil fuels, longer-term benefits of their use should offset current high costs through increased energy efficiency, the potential for **green** job expansion and advances in **green** R&D

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Recommendations

- Coordinate research among Asia-Pacific research centres with a focus on developing low-carbon goods & services along the agricultural value chain
- Design fact-based assessment of GHG reduction potential through pilot testing with the objective of shifting to low-carbon economic development while maintaining economic growth (Indonesia - forests & peat land; maybe power or transport in other countries)
- Establish partnerships between private sector, government & universities (PPPs) for practical low-carbon economy R&D and broadly disseminate results
- Increase expenditures & enhance capacity for agriculture extension focusing on low-carbon production, processing and marketing systems
- Institute policies that introduce **green** technologies in value chains
- Utilize innovative development pathways rather than conventional approaches in achieving environmentally sustainable agriculture

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Thank you

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