



## Short Article

# Is CDM a Necessary Condition for Biofuel Development?

The Clean Development Mechanism (CDM), set up under the 1997 Kyoto Protocol, is a co-operative mechanism aimed at helping industrialized countries to achieve their greenhouse gas (GHG) emission targets under the Protocol and simultaneously assist developing countries to achieve sustainable development. If biofuel can be developed through CDM in developing countries, it has several potential merits (Bakker, 2006). First, CDM offers an incentive to implement climate-friendly projects. Second, project investors can sell the certified emission reductions (CERs, 1 CER = 1 tonne of CO<sub>2</sub>) to industrialized countries. Third, co-operation between developed and developing countries may offer financial benefit, attract loans, and transfer of technology. Additionally, Gnansounou *et al.* (2005) pointed out that biofuel development may support the development of agriculture by providing rural people with additional incomes, creating new employment opportunities, and reducing local atmospheric pollution, hence promoting sustainable development. This implies that biofuel projects potentially qualify for CDM projects because they satisfy the dual goals of CDM. Considering these points, CDM should have had significant effects on the development of biofuel. As a matter of fact, however, this has not become a reality.

Up until mid-2006, over 800 projects were at the stage of validation under CDM, but none of these were biofuel projects. The number of CDM projects has been increasing fast. The CDM pipeline prepared by Capacity Development for CDM (2008) indicates that up to 1 May 2008, there had been 3,403 projects at the stage of CDM validation, and these projects will account for 2.57 million kilo-CERs in 2010. Among these projects, there were 531 biomass energy projects; six of them were biodiesel projects, but still there were no bioethanol projects in the CDM project portfolio.

Up to May 2008, the only baseline methodology for biofuel projects that had been approved by CDM Executive Board was for the production of biodiesel based on waste oils and/or waste fats of biogenic origin. This implies that the limited number of biofuel projects included in the CDM project portfolio is caused by the fact that no crop-based biofuel baseline methodology has been approved by the CDM Executive Board. Aside from baseline and monitoring methodology, the other barriers to the inclusion of biofuel projects in the CDM project portfolio include calculation of the GHG reduction, and high abatement costs (Bakker, 2006).

The International Energy Agency (IEA, 2004) found that the CO<sub>2</sub> abatement cost for both biodiesel and ethanol for most regions are estimated to be higher than US\$ 100/tCO<sub>2</sub> equivalents, with Brazil an exception (between US\$ 10-30/tCO<sub>2</sub>-equivalents). Compared

with current CER prices, which are in the range of 15-20 /tCO<sub>2</sub>-eq (Bakker, 2006), the current abatement cost is so high that investors are not attracted to investment in biofuel CDM projects. In the case of Thailand, for example, cassava-based ethanol has a GHG abatement cost of US\$ 99/tCO<sub>2</sub>. Regardless of the high abatement costs, Nguyen (2007) found that cassava-based ethanol would be a good substitute for gasoline and it is effective in fossil energy saving and GHG reduction.

Experience from Brazil indicates that CDM is not a necessary condition for the development of biofuel. Brazil's programme of bioethanol development in the mid-1970s was criticized as being uneconomic, but today the ethanol industry is recognized as an efficient sector that brings substantial benefits to the Brazilian economy. The success stems from several factors such as the availability of abundant agricultural land and an appropriate climate for sugar cane, sugar mills that can produce both ethanol and sugar, significant improvements in sugar production and ethanol processing, and crucial institutional support. Moreira (2006) pointed out that the most important policies behind the Brazil's success were: the requirement that the auto industry produce cars that use blended biofuels; subsidies for biofuels during initial market development; the opening of the electricity market to renewable energy-based independent power producers in competition with traditional utilities; support for private ownership of sugar mills which helps guarantee efficient operations; and stimulation of rural activities based on biomass energy to increase employment in rural areas.

The IEA projected that biofuels would be competitive with petroleum at petroleum prices of more than US\$ 60 a barrel. Since this point has been reached, many countries will strive for biofuel development. Although CDM is not a necessary condition for biofuel development (at least in the case of Brazil) it may become one of several conditions for other countries, because if biofuel projects are certified by the CDM Executive Board, the certified emission reductions (CERs) can be sold to industrialized countries, and this will significantly contribute to the GHG reduction. Therefore, the CDM Executive Board has to find ways of eliminating barriers for biofuel projects to be included in the CDM portfolio. ■

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***(References available upon request)***

Flash **BREAKING****Too Much 'Technical' Focus not Effective for Aid**

The issue of making aid more effective is critical. Too much aid money is delivered in an inefficient way that hinders rather than enhances recipient governments' ability to manage revenues. A recent working paper of IDS suggests that there is too much focus on the search for technical mechanisms. New ways of thinking about aid are now needed to make it more effective. Donors need to pay more attention to the processes involved in developing and sustaining equitable and trust-based relations with their partners. Only by so doing will donors be better able to get to grips with the problems of power relations that impede effective aid delivery.

Swarup, Anita, 2008. Too Much Focus on the 'Technical' not Effective for Aid. IDS, <http://www.ids.ac.uk/> (1 September 2008).

**Improving Information, Increasing Agricultural Productivity**

The International Food Policy Research Institute (IFPRI) has received a \$2.5 million grant from the Bill & Melinda Gates Foundation to expand and update the Agricultural Science and Technology Indicators (ASTI) database on investment and human capacity trends in agricultural research and development. Agricultural science and technology indicators are scarce in developing countries. To fill this gap, the ASTI initiative compiles internationally comparable data on investments in agricultural research and development worldwide, analyses the information, and reports on trends. Improvements in agricultural productivity largely result from new technologies and innovations, which in turn are dependent on investment in research and development.

IFPRI, 2008. Improving Information, Increasing Agricultural Productivity. Press Release, <http://www.ifpri.org/> (3 September 2008).

**UN Warns of Food 'Neo-colonialism'**

The race by food-importing countries to secure farmland overseas to improve their food security risks creating a "neo-colonial" system, cautioned Jacques Diouf, Director General of the Food and Agriculture Organization. The warning comes as countries from Saudi Arabia to China plan to lease vast tracts of land in Africa and Asia to grow crops and ship them back to their markets. "The risk is of creating a neo-colonial pact for the provision of non-value-added raw materials in the producing countries, and unacceptable work conditions for agricultural workers," Mr Diouf said. The move by financial investors and food companies looking to invest in overseas farmland, are also raising concerns.

Ethiopian Review, 2008. UN Warns of Food 'Neo-colonialism', <http://www.ethiopianreview.com/> (20 August 2008).

**ADB Study Offers New Way to Measure Poverty in Asia**

A new report from the Asian Development Bank offers a new way to measure poverty in the Asia and Pacific region. The report examines the sensitivity of various poverty estimates to different methods for evaluating purchasing power parities (PPP). The World Bank's \$1-a-day poverty estimates are based on PPPs developed for comparing household consumption. The new method uses PPPs based on comparisons of prices of goods and services. Using consumption PPPs, the report estimates that 1.042 billion people would have been living below \$1.35 a day in 2005. Under the more robust poverty PPPs, it would drop to 843 million people.

ADB, 2008. ADB Study Offers New Way to Measure Poverty in Asia, <http://www.adb.org/> (27 August 2008).

**Inspiring Action to Reduce Poverty**

To remain effective, think tanks involved in international development need to work in new ways, on new ideas, with new partners and to a new time scale. Simon Maxwell, the Director of the British Overseas Development Institute (ODI) an organization that aspires to be influential on the international stage, has identified three big challenges for ODI's future operation: coverage, capacities and communication. Coverage: the main issues for international development are now well established. They include: the impact of China on the manufacturing prospects for poor countries; the management of a new phase of globalization; the increasing overlap between development and foreign policy; the growing importance of global and regional 'public goods'; and the implications of all these for global institutions and global aid. This new development agenda needs an approach that links sectoral and topic-specific programmes, and an understanding of the underpinnings of pro-poor growth. Capacities: of ODI, but also, and more importantly, those of research institutes and think tanks in developing countries. Communication: in a previous age, the 'unit of production' was the book, the research report or the article in an academic journal. But the Internet has changed the way we communicate. We have found the need to be brief and much, much faster. The two-page opinion or the five-paragraph blog, turned around in just a few hours, is an essential vehicle for policy influence. This technology will require researchers to assume a different kind of role in facilitating new knowledge networks. ■

Based on Maxwell, S., 2008. Inspiring Action to Reduce Poverty. ODI, <http://www.odi.org.uk/> (September 2008).

**Farmer-friendly Financial Services Transform Lives in Northern Bangladesh**

Northern Bangladesh is home to some of the world's poorest and most vulnerable rural people. The area is frequently hit by floods and cyclones. Its smallholder farmers are largely excluded from borrowing and knowledge of farming practices that could help improve their lives and protect them from potential risks. In recent years, The International Fund for Agricultural Development and the Government of Bangladesh joined forces with the Palli Karma-Sahayak Foundation, one of the world's leading independent microfinance institutions. Together, they pioneered a new approach to delivering financial services to small and marginal farmers in the country. The farmers benefit most from a customized, flexible microcredit system. The financial services offered were tailored to the specific needs of poor farming communities. The project has introduced flexible funding that meets the needs of smallholder farmers while solving problems encountered by microfinance projects in the past. As a result, incomes are improving and rural people are beginning to lift themselves out of poverty. Alongside the microfinance services, the project provides training in improved farming techniques, crop diversification and animal husbandry. It started in 2005 and will run for six years. Nearly 5,500 groups have been formed already, with a total of 97,500 borrowers. Small farmers have been able to pay off moneylenders and rid themselves of chronic debt. Better still, they have been able to buy land, make home improvements, vaccinate their poultry, and in some cases, create employment opportunities for others within their villages. ■

Based on IFAD, 2008. Tailor-made: Farmer-friendly Financial Services Transform Lives in Northern Bangladesh. Rural Poverty Portal, <http://www.ruralpovertyportal.org/> (27 August 2008).

## Emerging Asian Regionalism

As Asia grows and prospers, its economies are increasingly vital to each other – and to the world. As markets interconnect the region, Asian governments need to work together more closely to sustain economic development, grasp common opportunities, and manage shared risks and problems. Asian regionalism is strengthening: it was given new impetus by the vulnerabilities exposed by the financial crisis of 1997-1998; it is dynamic, flexible, and outward looking. As such, emerging Asian regionalism is good for individual economies, good for the region, and good for the world. The challenge for a prosperous and interdependent Asia is to strengthen and spread the benefits of regional co-operation while playing a substantial, constructive role in global economic leadership. A new study from the Asian Development Bank analyses the nature of Asia's emerging regionalism and examines the opportunities and challenges it poses. It highlights what is at stake and lays out the ground for further discussion on how to move forward. The key message of the study is that, in an increasingly globalized world, Asian regionalism entails a partnership for regionally and globally shared prosperity. The report presents an agenda for integrating Asia's economic co-operation. It sets out priority areas and policy solutions for each of the following themes: integrating production, integrating financial markets, managing resource interdependence, making growth more inclusive and sustainable, and creating an architecture for co-operation. ■

Based on ADB, 2008. Emerging Asian Regionalism – A partnership for Shared Prosperity, <http://www.aric.adb.org/> (2008).

## The MDG Project in Crisis

In most countries most of the Millennium Development Goals (MDGs) will not be achieved by 2015 if current trends continue. In the countries that have made particular progress in economic growth, income disparities have also increased. Measured with the Gini Coefficient, the gulf between poor and rich has shown a steady increase in 42 out of 59 countries. In addition, there is little connection between the progress towards various goals; so the causes obviously need to be sought in very different variables and policies. There is virtually no link between MDG-1 (reducing poverty) and non-poverty goals such as child mortality and primary school completion rate. Most countries in all regions are off track on most MDGs, even those countries that have experienced the best growth performances. Some problems faced in achieving the MDG targets by 2015 are: (a) the poor functionality of state structures impedes social development; (b) methodological problems; and (c) development assistance has dropped way below the minimum required to achieve the MDGs. In spite of increased public awareness and political support, there are massive deficits in MDG implementation. The following recommendations up to 2015 and beyond should be considered: (a) binding targets in the context of the global development partnership; (b) linking the MDG debate with a human rights-based development approach; (c) functioning governance and rule of law as preconditions for MDG progress; (d) supporting national development strategies and countries' own instruments to measure poverty; and (e) re-orienting the focus from development goals to development strategies. ■

Based on Martens, J. and Debiel, T., 2008. The MDG Project in Crisis: Mid-point Review and Prospects for the Future. INEF Policy Brief 4/2008, <http://www.globalpolicy.org/> (April 2008).

## Flash EVENTS



### Developing Tomorrow's Leaders in Agriculture and Rural Development: Responding to the Challenges of Globalization

27-28 November 2008

SEARCA, Los Baños, Laguna, Philippines

Info:

[www.searca.org/web/e-library/announcements/rsfc\\_web\\_announce.pdf](http://www.searca.org/web/e-library/announcements/rsfc_web_announce.pdf)

### Poverty and the Right to Water and Food

Academic Workshop at the Norwegian Association for Development Research (NFU) conference 2008

27-28 November 2008

Trondheim, Norway

Info:

<http://www.crop.org>

### 2nd International Development Conference 2008 (IDC 2008): Towards Fulfilling the Millennium Development Goals of the United Nations –

The Journey So Far

27-29 November 2008

Toronto, Canada

Info:

<http://www.cefard.org/Events.html>

### Global Potato Conference 2008

9-12 December 2008

New Delhi, India

Info:

<http://www.gpc2008.in/>

## Book Review

### **Sustainable Agriculture: A Pathway Out of Poverty for India's Rural Poor**

GTZ Sustainet, Deutsche Gesellschaft für Technische Zusammenarbeit, Eschborn, 2006.

"Sustainable agriculture needs to be brought into the development agenda". This thought-provoking statement introduces GTZ Sustainet's book, "Sustainable Agriculture: A Pathway out of Poverty for India's Rural Poor". This book not only shows that sustainable agriculture works; it also outlines what should be done and how it can be done. Its introduction raises some challenging questions about the contribution of sustainable agriculture to the achievement of the Millennium Development Goals (MDGs): why are agriculture and rural development important? why is small-scale agriculture crucial? what approaches can be taken to achieve sustainable agriculture?

The Indian Government's commitment to agriculture is a global success story. India's ability to reduce poverty will determine the overall success of MDG-1. Most people in rural India depend on farming for their livelihoods. The agricultural sector has potential to create economic growth in rural areas. A crucial challenge for India's development is to ensure that small-scale farmers participate in and contribute to rural growth. Small farmers are more efficient than large farmers, employ more labour, and contribute to an increase in wages and rural-employment. In addition, by producing goods for their own consumption or for local markets they reduce transaction costs associated with purchased foods and improve food access and nutrition.

The book elaborates on the distinctive differences between sustainable agriculture and traditional and conventional agriculture. Sustainable agricultural development is the management and conservation of the natural resource base and the implementation of technological and institutional change in a way that ensures the fulfilment of human needs for present and future generations. Such sustainable development conserves land, water, plant and animal genetic resources, is environmentally non-degrading, technically appropriate, economically viable and socially acceptable. Sustainable agriculture is a broad concept that covers a number of different approaches such as organic agriculture, traditional organic practices, site-appropriate agriculture or eco-farming, low-external-input agriculture, integrated pest management, integrated nutrient management, watershed management as well as conservation agriculture and minimum tillage. The application and distribution of sustainable agricultural practice on a large scale would contribute significantly to the achievement of all MDGs.

The book consists of three chapters focusing on organic agriculture, managing land and water, and new products and markets. They present examples of micro success stories of sustainable agricultural

development in India. Successful experiences suggest that a framework for organic agriculture should be based on the following: integrating natural and regenerative principles into crop production; using local inputs, management skills and labour instead of external inputs; adapting multifunctional technologies that conserve and regenerate resources such as composting and water conservation; and providing credit on the basis of land rather than crops.

The book points out the change required to achieve the potential of sustainable land and water management. This includes: providing enough funds; improving funding mechanisms; applying treatments appropriate for each area; expanding the area eligible for support; promoting equity, collaboration between government and non-government organizations, and participatory monitoring; integrating sustainable agriculture; strengthening local organizations; and promoting market linkages. The farmers must be able to sell what they grow and grow what they can sell.

Various changes are needed to enable small farmers who practise sustainable agriculture to tap new products and new markets. They fall into four categories: helping farmer organizations; improving infrastructure and rural service; stimulating demand and marketing linkage for sustainable agriculture products; and levelling the playing field. Farmer organization is a key to overcoming many constraints faced by small farmers. Roads, telephones and storage and processing facilities must be improved. Demand for products produced using a sustainable approach should be stimulated by public awareness campaigns. Market information must be made available and reach farmers in remote areas. The government should provide the same level of support for sustainable agriculture as for chemical-based farming. Increased investment is needed in research and extension to improve sustainable agricultural techniques.

In the current situation, in which developing countries face a food crisis that affects the livelihoods of the rural poor, a better understanding of the role and practice of sustainable agriculture is very important. This book presents all the substantial dimensions of sustainable agriculture and describes its potential, successful experiences, constraints and the change needed to achieve the three

thematic aspects of sustainable agriculture that are successfully illustrated in its main chapters. ■

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