Integrating Agriculture in a Global Climate Deal

BENCHMARKS FOR COPENHAGEN

AGRICULTURE AND CLIMATE

The global agriculture system is failing both the world's hungry and the climate. A paradigm shift is needed to build a resilient system of food production, while contributing to climate change mitigation. Climate negotiators need to ensure an open process that includes all stakeholders, particularly smallholder farmers and Indigenous peoples, in considering agriculture.

Countless voices are calling for the inclusion of agriculture in the next global climate agreement. Missing from the collection of voices is an agreed vision for what that would mean in practice.

The existing global agriculture production system is failing the hungry—1 billion people are suffering from hunger around the world;[1] and the climate—agriculture contributes to about 20 to 30 percent of global greenhouse gas (GHG) emissions.[2] The UN's Environmental Program recently emphasized that "unless more sustainable and intelligent management of production and consumption are undertaken, food prices could become more volatile and expensive [...] as a result of environmental degradation."[3]

As climate negotiators consider whether, and how, to include agriculture in the deal at Copenhagen, the following recommendations are aimed at ensuring a positive contribution.

1. Build on existing expertise and recognize agriculture's multifunctionality

Between 2002 and 2008, the World Bank and the UN Food and Agriculture Organization (FAO) supported the development of the International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD)—a unique international and multidisciplinary review of global agriculture.[4] The assessment provides recommendations to "simultaneously meet development and sustainability goals while increasing agricultural production." The IAASTD puts forward "a multifunctional approach" to agriculture and regrets that "there is little recognition of the ecosystem functions that mitigate the environmental impacts [of agriculture]."[5] The IAASTD findings help reconcile agricultural mitigation strategies and global food security.

As governments examine agriculture's contribution to climate mitigation and its adaptation potential, they need to build on the findings of the IAASTD.

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Any effort to include agriculture under the UN Framework Convention on Climate Change (UNFCCC) needs to acknowledge the multifunctionality of agriculture and be closely connected to other international processes aimed at responding to the global food crisis. At the national level, climate negotiators need to coordinate with their counterparts in charge of agriculture, food and rural development.

2. Prioritize socially and environmentally sustainable solutions that break away from a failing business-as-usual scenario

Food systems globally are breaking down. Quick fixes and adaptation on the margins (more genetic manipulations applied to plants and animals, biomass combustion to increase soil carbon sequestration, etc.) will not deliver sustainable solutions. Governments need to take the IAASTD recommendations on board and support a paradigm shift in agricultural production to build resilient food systems that contribute to climate change mitigation.

According to UNEP, "changing the ways in which food is produced, handled and disposed of across the globe—from farm to store and from fridge to landfill—can both feed the world's rising population and help the environmental services that are the foundation of agricultural productivity in the first place."[6] Unlike proposed solutions that remain rooted in the high-input, fossil-fuel dependant farming model, the new paradigm will address multiple crises simultaneously: climate, soil fertility, biodiversity, water, and food security.

3. Support agricultural research, but rethink its focus

Major scientific uncertainties remain and hamper decision-making in relation to agriculture and climate change. More research is needed, particularly to develop mitigation methods that are measurable and verifiable. Interdisciplinary research is critical to get a better understanding of the different stages of agri-food systems and the UNFCCC should support that approach.[7]

Pilot projects are needed to improve measurement, reporting and verification technologies applicable to the sector, and to make such technologies widely accessible.

The U.S. recently announced that it would support New Zealand's proposal for a "Virtual World Research Center on Agriculture Mitigation Strategies." This new initiative falls short of the need to reorient agricultural research in a significant way. In a recent report, the International Trade Center stresses that "as 99 percent of the world's public and private research funds have focused on optimizing conventional and integrated food and farming systems during the last decades, major progress and solutions can be expected as a result of agro-ecological and animal welfare research activities."[8] The UNFCCC should contribute to this reorientation.

4. Refrain from using climate negotiations as a forum to advance trade interests

One of the solutions put forward by New Zealand as a way to meet the climate challenge is to design an "optimal global production pattern" for agriculture. Such a proposal is biased to suit the economic interests of agricultural exporters: the idea, in broad strokes, is to identify which countries have the most GHG-efficient agriculture and allow them to feed the world. In fact, the over-reliance on international trade mechanisms to allocate food in recent years at the expense of localized food security measures has weakened, not strengthened, the global food system. As UNEP stresses "Food security is not simply a function of production or supply, but of availability, accessibility, stability of supply, affordability and the quality and safety of food."[9] The climate footprint of agriculture cannot be considered in isolation from other economic and social imperatives—notably, respect for the right to food.

5. Critically assess the role of carbon markets for agriculture

Another major conversation around agriculture at the UNFCCC has to do with the opportunities that soil carbon sequestration holds in terms of offsetting emissions from other sectors. Many governments are advocating making soil carbon sequestration eligible under the Clean Development Mechanism (CDM). There are growing expectations that carbon markets will become a new source of investment for agriculture.

But the CDM's record in contributing to emissions reduction is widely questioned. It is even clearer that existing CDM rules do not fit the needs of sustainable agriculture. The risks involved by creating incentives for more large-scale investors to acquire land—primarily displacing family farms or Indigenous peoples, thus further increasing food insecurity—are not properly included in current discussions. Furthermore, there is—as yet—considerable scientific uncertainty regarding the measurability and permanence of soil carbon sequestration. Although it is desirable to encourage soil carbon sequestration, it should not be promoted as an offset to allow polluters to keep polluting.

6. Take steps to prevent excess speculation on carbon markets

The UNCTAD Trade and Development Report 2009 details how the domination of commodity markets by financial speculators contributed to the ongoing food price crisis in at least 30 developing countries.[10] Climate negotiators need to consider how excessive speculation could also undermine carbon markets. Within carbon markets being established at the national level in the U.S. and other countries, a secondary market of carbon derivatives is being created. Carbon derivatives are financial instruments based on the value of carbon allowance and offset credits.

In the case of the U.S., a huge influx (an estimated $2 trillion in notional value by 2017 according to the U.S. Commodity Futures Trading Commission[11]) of lightly

regulated carbon derivatives investments could have two devastating effects. First, if carbon derivatives are bundled into commodity index funds, the volatility of agricultural futures prices will increase, with negative consequences both for agricultural mitigation and food security. Second, if the legislative design of carbon markets facilitates extreme carbon price volatility, investments in GHG-reducing technology risk being delayed or reduced, as confusing price signals would inhibit rate of return investment estimates.[12]

7. Set up a transparent and inclusive process

Decades of experience in developing agricultural and food policies have evidenced the fundamental importance of transparency, inclusiveness and ownership to guarantee successful outcomes. Rushing decisions about agriculture at the UNFCCC would risk creating counterproductive or useless outcomes. Discussions about the integration of agriculture in a post-2012 agreement need to be transparent and inclusive—not informal or behind closed doors. All stakeholders must be allowed an equal voice—the perspectives of smallholder farmers and Indigenous peoples, in particular, are crucial to a successful outcome.

Conclusion

There is no question that agriculture's contribution to climate change needs to be addressed if we are to keep global warming below 2°C. Recent reports by the IAASTD and UNEP have highlighted options. Unless there is a serious commitment to reorient food production according to these guidelines, the UNFCCC's work program on agriculture may create more problems than it solves.

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