# ICTSD-IPC Platform on Climate Change, Agriculture and Trade:

Considerations for Policymakers



October 2009



ICTSD-IPC Platform on Climate Change, Agriculture and Trade





International Centre for Trade and Sustainable Development





### FOREWORD

In advance of the 15th Conference of the Parties (COP15) of the United Nations Framework Convention on Climate Change (UNFCCC) in December 2009 in Copenhagen, Denmark, and the Seventh Session of the World Trade Organization (WTO) Ministerial Conference at the end of November 2009 in Geneva, Switzerland, we are pleased to release this timely set of recommendations, derived from dialogues and analysis held and undertaken as part of our joint "Platform on Climate Change, Agriculture and Trade: Promoting Policy Coherence." We are grateful for the excellent analysis and input provided by all Platform experts and enriched by other participants to the dialogues. We are also most grateful to the Bill & Melinda Gates Foundation for funding the Platform's October 29 meeting in Washington DC, at which these recommendations are being released.

We hope that these recommendations on how to coherently address both climate change and food security, in part by creating an open and equitable food and agricultural trade system, will encourage increasing dialogue among trade, agricultural development and climate change policymakers and that this work ultimately results in better policies, conducive to sustainable development outcomes.

Platform experts and papers are listed at the end of these recommendations.

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# **EXECUTIVE SUMMARY**

Climate Change is expected to increase the likelihood of extreme weather events and contribute to longer-term changes in temperature and precipitation. Given agriculture's reliance on the weather, the agricultural sector will be seriously impacted by climate change. The sector is also a significant contributor of greenhouse gasses and will need to play a role in mitigating climate change. At the same time, however, increased demands on the sector will require that agricultural production more than double by 2050.

Given these challenges, global food security requires substantial adaptation efforts directed towards the agricultural sector. Emphasis must be placed on strengthening adaptive capacities in developing countries, with an eye toward also promoting socio-economic development and food security.

As it pursues climate change mitigation, the international community must be aware of potential negative spillover effects for food security and make provisions to address them, particularly in order to protect the world's poor and vulnerable. The agricultural sector must strive to reduce agricultural greenhouse gasses without jeopardizing food security. Increasing agricultural productivity on arable and degraded land so as to reduce deforestation, which contributes 20% of total greenhouse gas emissions, must be a priority. A focus on relative carbon intensity and soil carbon sequestration is also advisable.

Innovation and dissemination of new technologies will be important for both adaptation and mitigation. Public as well as private research will be required to ensure that this can take place, especially given developing countries' limited capacity to fund new research in this area. At the same time, existing tools and knowledge can already be employed and should be encouraged via concerted extension services. An improved policy framework is required to provide incentives for mitigation in the agricultural sector, in particular for developing countries, where agricultural greenhouse gas emissions are the highest.

An open and equitable trade system for food and agriculture is vital for food security and can contribute to both climate change adaptation and mitigation; it can help offset climate-induced production decreases in certain regions and facilitate the transfer of food and agricultural products from regions where their production requires relatively less greenhouse gas emissions to regions where production would result in higher emissions. Concluding the Doha Development Round would reduce tariff barriers, establish new ceilings on trade distorting support and eliminate agricultural export subsidies, which can encourage environmental degradation and discourage investment in developing countries.

Climate change and international trade policies should be coherent with each other. This will be more difficult to achieve if countries adopt unilateral trade-related climate change measures. Members of the World Trade Organization should engage in a process to consider the range of climate change/trade issues, with a view towards increasing members' understanding, a possible clarification of WTO rules or even as preparation for future negotiations. Such a process does not require a new institutional framework or mandate and can occur within the WTO's Committee on Trade and Environment.

### **INTRODUCTION**

Climate change will significantly affect the agricultural sector in most countries, presenting substantial development and trade challenges. Changes in temperature and precipitation, together with an increased frequency of extreme climatic events such as droughts and floods and an increased incidence of agricultural pests and diseases, will affect yields - especially in seasonally dry and tropical regions. Not only will these trends threaten the livelihood of

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farmers, particularly sub-Saharan in

Africa, they also risk undermining global food security, since global food demand expected is require agricultural production to more than double by the year 2050. In light of these challenges, a particular focus on helping the agricultural sector

adapt to climate change is required. The agricultural sector is, however, also a significant contributor of greenhouse gas emissions and has the potential to play an important role in climate mitigation. In developing countries, change emissions from agriculture and land use change account for the bulk of total emissions. Since climate change and food security are interrelated

action at the global level will be required establish meaningful to without such coherence, policies to address climate change risk impairing global security. food Efforts should focus on policies delivering win-win outcomes that enhance agricultural productivity, promote food security and a sustainable livelihood, and at the same time contribute to climate change mitigation and adaptation.

Climate change is projected to cause a concentration of food and fiber production in some countries and cause food shortages and increased dependency on food imports in a group of developing countries - mostly located in the tropical regions. Thus, open, equitable and undistorted trade flows for food and agricultural products will become increasingly vital for food security, supported by adequate regulatory policies and measures. Moreover, trade can also serve as an important climate change adaptation and mitigation tool. For these reasons, it is imperative that climate change policies and international food and agricultural trade rule are not at odds with each other.

# global challenges, coherent and coordinated policy solutions;

Since climate change and food security are interrelated global challenges, coherent and coordinated action at the global level will be required to establish meaningful policy solutions; without such coherence, policies to address climate change risk impairing global food security.

## 1. CLIMATE CHANGE POLICIES AND FOOD SECURITY

### Adaptation Efforts for Agriculture Must Be a **Priority**

Future food security requires effective adaptation in the agricultural sector, since the sector will be impacted by more extreme weather events, changing precipitation patterns and higher temperatures, and by glacier melt and sea-level water rise. Considering that some 80% of global water consumption is for the production of food - adaptation must foremost entail continued improvements in water productivity in both rain-fed and irrigated agriculture.

Following several decades of neglect, concerns about rural poverty and food security have recently triggered renewed efforts to strengthen the agricultural sector in developing countries. By chance, these efforts can also contribute significantly to both climate change mitigation and adaptation. For instance, agricultural ICTSD - IPC

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policy may seek to promote agricultural productivity through improved access to inputs and extension services that encourage the

Considering that some 80% of global water consumption is for the production of food - adaptation must foremost entail continued improvements in water productivity in both rain-fed and irrigated agriculture. adoption of sound agricultural practices. Through their implementation, these policies will also help restore soil health, leading to greater amounts of soil organic matter, a form of carbon sequestration. Thus,

international cooperation on climate changerelated agricultural adaptation research must be stepped up. Efforts should not focus exclusively on sophisticated and complex solutions, which require large amounts of funding and may not become commercially viable for several years, but should also seek to include approaches that are more readily available, in particular to agricultural producers in developing countries. Important adaptation efforts can already be undertaken without the benefits of further research: the provision of basic support services developing country farmers such as improved infrastructure, technology and enhanced rural services will increase their resilience to climaterelated risks and better prepare them to adapt to climate change. More generally, increased sustained financing for agricultural and development is required to promote food security, alleviate poverty, and address climate change. Developing country and donor country governments are well advised to point to these three very important rationales for policies to strengthen the agricultural sector.

Emphasis must be placed on strengthening adaptive capacities in developing countries, with an eye toward also promoting socio-economic development and food security. More countryspecific research on the likely impacts of climate change on national agricultural production - and by extension, specific adaptation needs is required in order to help determine optimal agricultural development strategies. New and additional climate change resources for mitigation, adaptation and technology transfer should be explicitly channeled to the agricultural sector, given the positive correlation between climate change response measures in the sector and important development co-benefits. At the same time, greater coherence should be sought with other funds provided to the agricultural sector both by developing country governments, donors and multilateral financial institutions.

This must include funding provided through the United Nations Framework Convention on Climate Change (UNFCCC). Aid for Trade geared to the agricultural sector should also take climate change into consideration, since climate change may lead to shifts in comparative advantage and export potential.

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#### Climate Change Mitigation Efforts Must Consider Food Security Implications

Because of the interrelationships highlighted above, policies chosen to address climate change risk having negative, unintended consequences for the agricultural sector. For example, the rush to produce biofuels from agricultural feed stocks, which was in part motivated by a desire for cleaner energy sources, appears to have been a factor in the 2007/08 food price spikes. Similarly, other climate change mitigation efforts could have a negative impact on food security. Emission caps could lead to price increases of fuels and fertilizers, and since agriculture is a heavily energy dependent sector not only in the developed world, but also increasingly in Latin America and Asia, such policies may also lead to food price increases. The international community must be aware of potential spillover effects and make provisions to address them,

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particularly in order to protect the world's poor and vulnerable.

In addition, since agriculture is a key driver of deforestation, which accounts for 20% of global greenhouse gas emissions, increasing a g r i c u l t u r a l productivity on existing arable land

and restoring the productive capacity of degraded land must be a priority. Slowing down or ending deforestation will also support biodiversity and help combat desertification and land degradation.

Agriculture accounts for another 14% of global greenhouse gas emissions, a figure which is expected to increase to 30 - 40 % by 2030. In many countries such as Uruguay, Morocco, New Zealand, and the Sub-Saharan region, agriculture even accounts for a major share of national GHG emissions. Agriculture must play a role in mitigation, but an absolute focus on reducing agricultural greenhouse gas emissions may have a negative impact on agricultural productivity and food security. Moreover, reduced agricultural production on existing arable land in one place may simply trigger an expansion of agricultural land elsewhere, with the end result being an increase rather than decrease in global emissions. It is important to emphasize that agriculture's greatest technical mitigation potential lies in soil carbon sequestration. According to the Intergovernmental Panel on Climate Change (IPCC), carbon sequestration in agricultural soils represents nearly 90% of the GHG technical mitigation potential in agriculture and between 11 and 17% of total GHG emission mitigation potential. Carbon stock in soils is also highly correlated with productivity gains, resilience, and soil conservation and is a relatively affordable form of mitigation.

Therefore, instead of pursuing an absolute reduction in agricultural emissions, which risks jeopardizing food security, the focus of mitigation efforts should also be on promoting production that entails a relatively lower level of emissions. Countries and regions well suited for relatively lower carbon intensive agricultural production should continue production and provide agricultural products – via trade flows – to regions where such production is not as carbon efficient.

Similarly, while reducing the energy intensity of agricultural production is desirable, it is important to keep in mind that for some countries, an intensification of agriculture - achieved by an increased use of fossil-fuel based inputs - could be necessary to combat Many developing country deforestation. agricultural producers, particularly in Africa, have suffered low and declining yields due to a lack of sufficient inputs, including modern farming equipment and fertilizer. At first glance, such a low level of energy use may seem appealing from a climate change perspective, but low productivity and poor soil health, if left unchanged, reduce the potential for carbon sequestration and could lead to increased rates of deforestation, therefore exacerbating rather than mitigating climate change. In these cases,

increase in an emissions arising from more energy intensive inputs could be more than neutralized by the emissions saved as a result of foregone land use change. In other cases where intensive production could risk further degrading fragile soils, especially in tropical regions, extensive production techniques such as mixed cropping and crop rotation could ensure higher yields,

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farmers are able to take advantage of the most beneficial techniques and technologies.

#### The Role of Innovation and Technology

In order to meet global food demand, farmers must produce more while emitting less. If this is not feasible given the demands facing the agricultural sector, farmers must produce more without increasing emissions at the same rate. Resourcefulness and innovation have been crucial for agricultural production throughout history, and will be even more so in light of the significant climate challenge we face.

Reduced or no tillage, use of nitrification inhibitors, and improved fertilizer practices - including adjusting fertilizer rates to crop demand and synchronizing application to crop uptake - have the potential to reduce GHG emissions from soils while increasing organic carbon stored in soils at a net benefit and without

negatively affecting yield. Reducing non-C02

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emissions, such as methane from domestic ruminants and wetland rice cultivation or nitrous oxide resulting conventional from tillage and fertilizer use, are important mitigation measures. Carefully applied and managed technological

innovations play an important role in increasing productivity. Agricultural biotechnology has already increased productivity while reducing the usage of chemicals and energy. Future products will provide for drought resistance and increased nitrogen uptake.

The global community must be mindful about enabling and disseminating innovation that will allow farmers to reduce greenhouse gas emissions from agriculture. More research and development of crop varieties that could withstand temperature increases and increased climatic variability is required, especially for crops that can be grown in tropical and arid regions. Public as well as private research will be required to ensure that this can take place, especially given developing countries' limited capacity to fund new research in this area .

Achieving agricultural emissions reductions does not always require the newest technologies. Great strides – both in terms of food security and climate change mitigation – can be made by small scale farmers using existing technologies and knowledge. Conservation agriculture practices aim at a more efficient use of inputs and building up soil health. Tree planting on farm land is another important measure that farmers in developing countries can undertake. It is vital to step up extension services in developing countries, so that these methods for growing crops can be more widely disseminated.

#### **Financing and Incentives**

An improved policy framework is required to provide incentives for mitigation in the agricultural sector, in particular for developing countries, which have the highest (and rising) agricultural greenhouse gas emissions. In view of the fact that developing countries have not, on the whole, contributed significantly to global warming, many of these countries seek to be provided with strong incentives to encourage them to reduce their emission levels, particularly in the form of financing from developed countries. Such requests are likely to be better received if developing countries commit themselves to actions to address climate change, and actions in the agricultural sector are advisable since they may, if properly designed, also contribute to food security.

The global community must be mindful about enabling and disseminating innovation that will allow farmers to reduce greenhouse gas emissions from agriculture. Public as well as private research will be required to ensure that this can take place, especially given developing countries' limited capacity to fund new research in this area.

Market mechanisms should be adapted to incentivize mitigation in the agricultural sector. Since carbon sequestration offers the highest mitigation potential, incentives should be tailored to this area. In order to accomplish this, a number of obstacles need to be overcome. These include. perhaps

most importantly, the sheer scale on which changed agricultural production techniques would have to be adopted, and the considerable difficulties involved in measuring, reporting and verifying reductions in greenhouse gas emissions arising as a consequence. There is also the risk that carbon financing market mechanisms will only provide temporary incentives, since carbon sequestration occurs only for a limited period of time (sink saturation). Perhaps a more useful and longstanding incentive could be provided in return for improved soil quality and land productivity, which would provide for a greater permanence of the mitigation effort, in addition to also being an important adaptation measure.

Particular emphasis must be placed on ensuring that incentives also reach smallholders, not only to promote mitigation in developing countries

but also to tap into potential new income flows. Incentives – such as environmental services payments - will likely also play an increasingly important role in the agricultural sectors of developed countries, but care must be taken to ensure that such incentives do not lead to

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trade distortions, which can further disadvantage agricultural producers in developing countries. In particular, such payments should be closely tied to clearly-defined environmental objectives, and be proportional to the size of the environmental benefits delivered.

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# 2. CLIMATE CHANGE AND INTERNATIONAL TRADE POLICIES

#### An open, equitable and undistorted trade system for food and agricultural products is important in the context of climate change

Trade of food and agricultural products will be crucial in order to offset climate-induced production decreases in certain regions. Although much greater specificity is needed, research so far suggests that expected moderate warming in mid- to high-latitude regions may lead initially to agricultural yield increases (particularly out to 2025), whereas even slight warming in dry and low-latitude countries is expected to result in yield decreases. One of the main conclusions of the IPCC's fourth Assessment Report is that this shift in production potential could affect comparative advantages and result in substantially higher trade flows of mid- to high latitude products (i.e. cereals and

livestock products) to the low latitudes. This trend in trade flows is already projected as a result of rapid population growth and increasing resource scarcity in low latitude regions.

Even more significant than long-term warming trends, a projected change in the frequency and severity of extreme climate events is expected to have a major impact on agricultural production, price volatility, and food security. In this scenario, trade of agricultural products from areas unaffected by extreme weather events to those affected by them will also be crucial.

Food and agricultural trade can also be helpful in mitigation efforts. Returning to the concept of relative carbon intensity of agricultural production, an open, equitable and undistorted trading system could facilitate the transfer of food and agricultural products from regions where their production requires relatively

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greenhouse less gas emissions to regions where production would result in higher emissions, thus contributing to a decrease in global agricultural greenhouse gas emissions. However, in order for this to occur, trade liberalization would need to be accompanied by appropriate regulatory

frameworks on greenhouse gas emissions at the national and international levels, and environmental externalities of agricultural production would have to be included in pricing.

#### **Concluding the Doha Round**

Given the increased importance of open, equitable and undistorted trade flows of food and agricultural products in the context of climate change, further progress on multilateral liberalization and trade environmental regulatory frameworks is needed. Governments need to move quickly to complete the Doha Development Round of trade negotiations, as this should facilitate a more predictable and equitable flow of food and agricultural products by reducing tariff barriers, establishing new ceilings on the maximum permitted levels of trade-distorting support, and eliminating agricultural export subsidies. A substantial reduction of trade distorting agricultural support and an elimination of export subsidies is an important objective, since such policy measures can encourage environmental degradation by incentivizing the over-exploitation of scarce or fragile natural resources as well as carbonintensive agricultural production in developed countries. This type of support also negatively affects the competitiveness of developing country farmers and discourages investment in developing country agriculture; its elimination could play a significant role in helping poor countries enhance productivity. Less distorted trade flows could therefore contribute to a

global decrease in agricultural greenhouse gas emissions, if the right supporting policies are also put in place. Overcoming existing trade distortions in the agricultural sector will also importantly contribute to the proper functioning of market mechanisms to incentivize mitigation in the agricultural sector, and in particular to reach agricultural producers in developing countries on a larger scale.

The Doha Development Agenda also includes some directly relevant elements, i.e. negotiations to clarify the relationship between World Trade Organization (WTO) rules and specific trade measures set out in Multilateral Environmental Agreements (MEAs); to reduce or eliminate tariffs and non-tariff barriers to environmental goods and services; and to clarify and improve WTO disciplines on fisheries subsidies.

The Doha mandate asks WTO members to reduce or eliminate tariffs and non-tariff barriers on environmental goods and services. Consensus on what products

should be considered environmental goods has been elusive. Some countries have proposed that certain biofuels or agricultural products be environmental goods, whereas others contend that the list should only contain non-agricultural industrial products. The situation has

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been complicated by the way in which various biofuels are treated under the World Customs Union's harmonized system of tariff lines, which establishes the internationallyaccepted classification of traded goods: this considers ethanol to be an agricultural product, but biodiesel to be an industrial good. The two products would thus be subject to different tariff cuts in the Doha round negotiations.

The Doha negotiations on fishery subsidies are the first negotiations in the WTO/GATT context that address the question of subsidies not only from a competiveness concern, but also from an environmental concern.

### Ensuring Coherence Between Climate Change and International Trade Policies

In theory, there should be no conflict between international climate change policies and trade rules. The UNFCCC explicitly states that measures taken to combat climate change should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. Likewise

In theory, there should be no conflict between international climate change policies and trade rules. In practice, however, reconciling climate change and international trade policies may prove to be more difficult, given the many interrelationships mentioned above.

WTO members have agreed that an open, nondiscriminatory, multilateral trading system and actions that protect the environment and promote sustainable development can and must be mutually supportive. The WTO's insistence on national treatment and nondiscrimination may

well serve as a bulwark against protectionist measures disguised under a mantle of climate change. Likewise, WTO rules may prove sufficiently flexible to adjust to a new international climate change regime. In practice, however, reconciling climate change and international trade policies may prove to be more difficult, given the many interrelationships mentioned above.

Many potential conflicts can be avoided if international consensus on an appropriate climate change framework is reached, in particular if the legal relationship between WTO rules and MEAs is clarified. Such a consensus would greatly minimize the likelihood of trade disputes. A lack of consensus would be more problematic as it increases the likelihood of unilateral measures, which may lead to trade disputes. Since the WTO is an international agreement which includes a binding dispute settlement process, countries may seek to object within the WTO to climate change measures which they consider to be overly trade distorting. Although difficult to implement a formal agreement, countries should be encouraged not to adopt unilateral climate change-related trade measures, and on the other side, to refrain from bringing climate change-related trade disputes before the WTO, at least for a defined period of time.

Until a new international climate change framework comes into existence, and/or until the extent of unilateral climate change related trade measures becomes clearer, it would be unwise for WTO members to open parallel negotiations on the climate change-trade issue. WTO members are best advised to focus their negotiating efforts on concluding the Doha Round, which is also important in the context of climate change.

WTO members are advised, however, to engage in a consideration of how international trade rules can be coherent with actions to address climate change and food security. As such, they could initiate a process to examine the impact of emerging domestic climate change policies on trade, to consider the areas of possible conflict with WTO rules and ways in which WTO rules may need to be clarified and possibly amended. Such a process does not require a new institutional framework or mandate. It is useful to recall that the Doha Ministerial Declaration already instructs the Committee on Trade and Environment (CTE) to give particular attention as it pursues work on all agenda items within its current frame of reference to 1. the effect of environmental measures on market access, especially in relation to developing countries... and those situations in which the elimination or reduction of trade restrictions and distortions would benefit trade, the environment and development; 2. the relevant provisions of the Agreement on Trade-Related Aspects of Intellectual Property Rights; and 3. labeling requirements for environmental purposes. The Declaration calls for this work to include the

identification of any need to clarify relevant WTO rules...and make recommendations with respect to future action, including the desirability of negotiations.

Within this mandate, the CTE can begin deliberations to identify possible areas of conflict between climate change policies and international trade rules, and to seek possible solutions. A number of topics that could usefully be explored are relevant to trade in all goods, i.e. whether the GATT's general exception clause would cover climate change related trade measures, or whether border tax adjustments are WTO compatible. Subsidy and standard related issues may be particularly relevant for the food and agricultural sector since they are also addressed in the separate Agreement on Agriculture and the Agreement on Sanitary and Phytosanitary Measures (SPS). It will also be important to consider whether free allocation of allowances under cap and trade schemes should be considered subsidies. The CTE is specifically mandated to examine intellectual property rights in the context of environment, which is of interest since technology transfer is an important pillar of the UNFCCC negotiations. The CTE is also tasked with examining labeling requirements for environmental purposes.

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There are a number of important issues to consider here, i.e. whether nonproduct related production and processing methods permissible are under WTO rules, applicability the of WTO rules on private labels and and standards, what constitutes an

international climate change-related standard.

The Committee on Trade and Environment is thus well placed to engage in a process to consider the range of issues that arise in the climate change/trade context, with a view toward increasing members' understanding of

the issues, a possible clarification of WTO rules or even as preparation for future negotiations. Moreover, other WTO Committees such as the Committee on Agriculture and the TBT and SPS Committees -- could begin a similar process of consideration.

The Committee on Trade and Environment is thus well placed to engage in a process to consider the range of issues that arise in the climate change/ trade context, with a view toward increasing members' understanding of the issues, possible clarification of WTO rules or even as preparation for future negotiations.

Special Committee sessions with climate change experts or negotiators could be foreseen.

# ANNEX I MEMBERS OF THE PLATFORM

### **Steering Committee:**

- John Anthony Allan, Kings College (UK)
- Jason Clay, Senior Vice President Market Transformation, WWF US (US)
- Franz Fischler, Former Commissioner for Agriculture, European Union (Austria)
- Adrian Macey, Ambassador of Climate Change Negotiations (New Zealand)
- Daniel Martino, Carbosur, Coordinating Lead Author of Agriculture Chapter for IPPC AR4 (Uruguay)
- Raul Montemayor, Vice-President, Federation of Free Farmers Cooperatives/International Federation of Agricultural Producers (IFAP), IPC Member (Phillippines)
- Peter Smith, Aberdeen University, Coordinating Lead Author of Agriculture Chapter for IPPC AR4 (UK)
- Ajay Vashee, President, International Federation of Agricultural Producers (IFAP), IPC Member (Zambia)
- Michel Petit, Professor, Institut Agronomique Méditerranéen, IPC Member, (France)

### **Expert Group:**

- Christian Friis Bach, International Director, DanChurchAid (Denmark)
- Bruce E. Dale, Michigan State University (US)
- Jane Earley, consultant, Earley and White Consulting Group LLC (US)
- Lin Erda, Professor and Ex-Director General, Agro-Environment and Sustainable Development Institute Chinese Academy of Agricultural Sciences (China)
- Ni Hongxing, Deputy Director-General, Ministry of Agriculture (China)
- Marcos Jank, President, UNICA (Brazil)
- Melinda Kimble, UN Foundation (US)
- Willem-Jan Laan, Director, Global External Affairs, Unilever, IPC Member (NL)
- Wendy Mann, Senior Advisor Natural Resources and Environment Department, Food and Agriculture Organization of the United Nations
- Gerald Nelson, Senior Research Fellow, International Food Policy Research Institute (IFPRI) (US)
- Tim Searchinger, Research Scholar, Princeton University, former co-Director of Center for Conservation Incentives at Environemental Defense (US)
- Hasit Shah, Managing Director, Sunripe Kenya Ltd. ; Chairman, Fresh Produce Exporters Association of Kenya (FPEAK) ; Chairman, Kenya Horticultural Council (KHC) ; Director, COLEACP (Kenya)
- Youba Sokona, Executive Director, The Sahel and Sahara Observatory (Tunisia)
- Vanessa Stiffler-Claus, Manager, Federal Affairs, John Deere (US)
- Ancha Srinivasan, Senior Climate Change Specialist, Asian Development Bank (India)

# ANNEX II PAPERS OF THE PLATFORM

International Climate Change Negotiations and Agriculture, Policy Focus No.1, May 2009

Greenhouse Gas Reduction Policies and Agriculture: Implications for Production Incentives and International Trade Disciplines, Issue Brief No.1, by D. Blandford and T. Josling, August 2009

Climate Change, Agriculture and International Trade: Potentials Conflicts and Opportunities, Policy Focus No.2, by J. Earley (forthcoming)

Carbon and Agricultural Trade in Developing Countries, Issue Brief No.3, by James Macgregor (forthcoming)

Climate Change and China's Agricultural Sector: An Overview of Impacts, Adaptation and Mitigation, Issue Brief No.4, by Jinxia Wang and Jikun Huang (forthcoming)

The Role of Trade in Food and Agricultural Products in Climate Change Adaptation Costs, Issue Brief No.5, by Gerald Nelson, Amanda Palazzo, Claudia Ringler, Mark Rosegrant, Timothy Sulser, and Miroslav Batka (forthcoming)

Aid for Trade, Agriculture and Climate Change, Issue Brief No.6, by Jodie Keane (forthcoming)

10Agricultural Technologies for Climate Change Mitigation and Adaptation in Developing Countries:ICTSD - IPCPolicy Options for Innovation and Technology Diffusion, Issue Brief No.7, by Travis Lybbert and<br/>Daniel Sumner (forthcoming)

#### About the Platform

In 2008 the International Food & Agricultural Trade Policy Council (IPC) and the International Centre for Trade and Sustainable Development (ICTSD) launched The ICTSD-IPC Platform on Climate Change, Agriculture and Trade: Promoting Policy Coherence. This interdisciplinary platform of climate change, agricultural and trade experts seeks to promote increased policy coherence to ensure effective climate change mitigation and adaptation, food security and a more open and equitable global food system.

#### About the Organizations

The International Centre for Trade and Sustainable Development was established in Geneva in September 1996 to contribute to a better understanding of development and environment concerns in the context of international trade. As an independent non-profit and non-governmental organization, ICTSD engages a broad range of actors in ongoing dialogue about trade and sustainable development. With a wide network of governmental, non-governmental and inter-governmental partners, ICTSD plays a unique systemic role as a provider of original, non-partisan reporting and facilitation services at the intersection of international trade and sustainable development. More information is available at www.ictsd.org.

The International Food & Agricultural Trade Policy Council promotes a more open and equitable global food system by pursuing pragmatic trade and development policies in food and agriculture to meet the world's growing needs. IPC convenes influential policymakers, agribusiness executives, farm leaders, and academics from developed and developing countries to clarify complex issues, build consensus, and advocate policies to decision-makers. More information on the organization and its membership can be found on our website: www.agritrade.org.