

Options for Agriculture in the 2015 International Climate Change Agreement



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UK Met Office
June 2014

This report has been produced by Kibo Consulting / UK Met Office for the UK Department for International Development (DFID) Adaptation Knowledge and Tools programme and published through Evidence on Demand.

The Adaptation Knowledge and Tools programme is a DFID-funded programme intended to maximise the effectiveness of UK and international investment in climate change adaptation and resilience. The knowledge and tools generated through this programme are expected to promote greater understanding of what constitutes best practice in adaptation, as well as better international cohesion and coordination around adaptation. Through these entry points the programme expects to increase the quality of international and UK adaptation programming and reduce its risk.

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DOI: http://dx.doi.org/10.12774/eod_cr.june2014.kibometoffice

First published June 2014

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Report Summary

This paper provides possible options for advancing agriculture's inclusion in the 2015 climate change agreement.

The context:

The United Nations Framework Convention on Climate Change (UNFCCC) is the principal instrument for action on climate change at the international level. It has focused on a growing number of issues over time, but agriculture has not been successfully integrated into the negotiations to date.

The agricultural sector occupies a unique space in relation to climate change. Agriculture is important to food security and livelihoods globally, providing food, feed, and fibre, as well as income, for millions directly through production and indirectly throughout the value chain.

Agriculture faces significant challenges in the next 30 years. Growing demand for food will increase pressure on natural resources. At the same time, climate change will increasingly impact on agriculture, requiring more adaptation efforts to build resilience to protect farmers' livelihoods and contribute to a more food secure and prosperous world.

At the same time, agriculture itself is responsible for about 10-12% of global greenhouse gas (GHG) emissions (IPCC, 2014). This does not take into account emissions from the global food chain. Taking these into account agriculture and the food system contribute about 19-29% of global GHG emissions.

With the perspective of a new agreement in 2015 setting the course for international action on climate change from 2020, there is an opportunity to consider what may be the best options for advancing action on agriculture and climate change in the UNFCCC that helps to build resilience of agriculture to climate risks, contributes to a more food secure, sequesters carbon, and reduces direct emissions of greenhouse gases.

Agriculture in the negotiations:

As agriculture is a complex sector, with important linkages to food security and livelihoods, it is likely that full integration into the UNFCCC would take time and to resolve past 'stumbling blocks' in the negotiations. This places constraints on what can be achieved in the next 18 months before agreement in Paris at COP 21. Given these limitations, the objectives in 2015 on agriculture could be best characterised as the establishment of a framework or a stream of work that:

- Supports action by Parties on agriculture in the pursuit of their overall strategies for adaptation and mitigation including through access to financing and technology transfer;
- Promotes international coordination and knowledge sharing to ensure global progress on agriculture adaptation and mitigation.

A framework should also aim to ensure that agriculture is not excluded from being fully integrated into the UNFCCC in the future, and is one that facilitate actions by countries on agriculture adaptation and mitigation. It should offer a space for knowledge exchange by building common understanding on key issues and by providing a mandate for discussion on agriculture.



Options for taking agriculture forwards in the negotiations:

There are a range of options that could be taken on including agriculture in the UNFCCC each with different set of benefits and challenges. The main options are:

- **Option A:** would be to step back and focus on the broader agreement, with no specific 'ask' or mention of agriculture. The objective would be to first create an overall framework, in which agriculture could then be considered.
- **Option B:** would be to continue current efforts to agree on a work programme under SBSTA, to be completed before 2015, or started before 2015, with the objective of informing Parties' national plans and providing a forum for knowledge sharing.
- **Option C:** would be to prioritise the mention on agriculture in the 2015 text, most likely in the preamble or 'chapeau' of the agreement, with the objective of laying the basis of a common understanding that would then facilitate further work post-2015.
- **Option D:** would combine REDD, Land Use, Land Use Change, Forestry (LULUCF) and agriculture into one 'land' sector to reflect the synergies and linkages that exist between these issues. Mandate for a 'land sector' in the 2015 text would then set the stage for further discussions post-2015, including on agriculture.
- **Option E:** would have agriculture taken up by existing bodies, such as the Nairobi action plan and/or the Adaptation Committee, using existing frameworks and building experience and knowledge on agriculture, perhaps paving the way for a standalone stream of work at a later stage.

Options B, C and D most clearly meet the objectives of a) supporting actions by Parties on agriculture and b) promoting international coordination and knowledge sharing. However, how much progress can be made through SBSTA (option B) by 2015 is uncertain, given that many of the stumbling blocks that have impeded the discussions still need to be resolved.

Agriculture and climate change outside of UNFCCC:

While discussions on agriculture in the UNFCCC have been slow, there has been progress on mainstreaming climate change into agriculture policies and programmes. This has included: work on the Sustainable Development Goals (SDGs); in Africa [CAADP](#) is integrating climate-smart agriculture; through the UN, FAO has undertaken extensive work on climate-smart agriculture and IFAD has also scaled up its work through the [Adaptation for Smallholder Agriculture Programme](#) (ASAP); the [Global Research Alliance on Agricultural Greenhouse Gases](#) is finding ways to produce more food while minimising GHG emissions; the [Climate and Clean Air Coalition's Agriculture Initiative](#) is reducing emissions from short-lived GHGs; lastly, a new [Global Alliance on Climate Smart Agriculture](#) is to be launched at UNSG's Climate Summit.

While all these initiatives are important, they are different to the UNFCCC and not an alternative to a 2015 agreement that includes agriculture. Furthermore, given agriculture's contribution to global emissions and its potential for adaptation, any agreement seeking to address mitigation and adaptation would need to include the sector to be successful.

Conclusion:

The latest IPCC reports provide ample evidence on why action on adaptation and mitigation under the UNFCCC are essential. The challenge is how, in the next 18 months, Parties can secure an ambitious agreement in 2015 that will contribute to creating a framework for ambitious action on climate change, and set the direction for agriculture to become integrated into UNFCCC, be it standalone or in a 'land sector'. The ability to reach this depends upon three elements: 1) an appreciation of the importance of agriculture and its role in food security and livelihoods; 2) a commitment by all Parties to discuss agriculture adaptation and mitigation; 3) political will to engage this discussion and to agree text for the 2015 agreement.



SECTION 1

Agriculture and climate change

The agricultural sector occupies a unique space in relation to climate change. Agriculture is key to food security and livelihoods globally, providing food, feed, and fibre, as well as income, for millions directly through production and indirectly throughout the value chain.

As a sector, agriculture is complex and diversified, combining the production of a myriad of crops through varied farming systems – from small-scale production of mixed crops for local consumption, to large-scale production of staple crops such as rice, wheat, maize and soybeans, but also including livestock production, agro-forestry, biofuels, and cash crops. A range of farming systems usually coexists in any given country, meeting diverse needs and interacting with other sectors of the economy in different ways. This makes agriculture integral to most economies, but also difficult to characterise on the global level.

Agriculture is already, and will be increasingly, affected by climate change. Impacts of climate change on crop yields are already evident across several regions of the world, in particular with negative impacts on net global yields of maize and wheat (IPCC, 2014).


Over the long term, increases in climate variability, rising temperatures, changes in water availability, and other features of a changing climate will affect farmers' ability to produce food. For example, overall crop yields in Africa and South Asia could decline by 8% by 2050 and yields from tropical fisheries could decline by as much as 40 percent. Indeed, a synthesis of projections of crop yields across regions estimates an average decline by 2050 of 8% for Africa and South Asia for all crops. Wheat, maize, sorghum, and millets will be worse affected than rice, cassava, and sugarcane (Vermeulen, 2014).

With 75% of the world's poor living in rural areas, agriculture can act as an important driver for poverty reduction in many countries (World Bank, 2008; IPCC, 2014). Climate change will hit the most vulnerable first and hardest. Poor rural populations are among those most vulnerable as their livelihoods can be strongly affected by the changes brought on by climate change. Recent projections suggest that the number of people at risk of hunger will increase by 10-20% by 2050 as a result of climate change, with 65% of this population in sub-Saharan Africa (UK Meteorological Office, 2012). More specifically, the International Food Policy Research Institute (IFPRI) estimates that, by 2050, the decline in calorie availability could increase child malnutrition by 20%, eliminating many of the improvements that have been made in child nutrition in recent years (Nelson et al, 2009).

While the effects of climate change may be felt first and most acutely in developing countries, in particular in those already facing environmental and food security challenges, it will ultimately affect countries across all regions – as such, it is a global issue in scope.

Adaptation: building resilience of agriculture to climate risks

Irrespective of any future reductions in global greenhouse gas emissions, legacy emissions have already locked in a global temperature increase of 0.25°C from 2015-2025 (ibid) and the prediction that the intensity and potential frequency of extreme events (especially floods and droughts) will increase will all have significant adverse impacts on agriculture. Without



adaptation and building resilience, productivity of the agricultural sector faces significant impacts – in the absence of agricultural adaptation, 21% of the global population could be at risk of undernourishment by 2050 (Arnell et al, 2010).

Framed over the 2015-2030 period, adaptation of the agricultural sector is needed in order to meet climate change impacts and help address associated global food-security threats. Yet, the scale of action to undertake is daunting – while the required investments in adaptation are complex to quantify on the global scale, estimates have suggested that investments in agricultural productivity alone would need to be in the range of US\$7.1-7.3 billion to offset the negative impacts on children’s nutrition and wellbeing alone (Nelson et al, 2009).

Over the long term, adaptation will be needed to respond not only to risks linked to climate change, but also changes in demand, both in terms of quantity but also products. Based on the recent IPCC AR5 Report, CCAFS reports that adaptation benefits could be significant, with benefits in crop management around 15-18% of current yields for major cereals (Vermeulen, 2014).

Agriculture’s contribution to global emissions

Together, agriculture, forest and other land use (known as the AFOLU sector) contributes 24% to global emissions. Agriculture itself is responsible for about half of the AFOLU sector’s emissions, contributing 10-12% of global greenhouse gas (GHG) emissions (IPCC, 2014). By comparison, industry contributes 21%, transport 14%, and electricity and heat production 25% (ibid).

However, this does not take into account the broader scope of emissions linked to food production. Emissions from the global food chain are estimated to be 9,800-16,900 megatons of CO₂ equivalents (using 2008 data), including indirect emissions from changes in land use. This means that the food system contributes 19-29% of global GHG emissions. Of the emissions from the global food chain, emissions from agriculture amount to 80-86% of the total, with the remainder coming from pre- and post-production activities (Vermeulen et al, 2012, p198).

As the global population and the demand for food continue to grow, total GHG emissions from the agricultural sector are projected to increase over time. The main mitigation options in the agriculture sector include, on the agriculture or food supply side: conservation of existing carbon pools in soils or vegetation, carbon sequestration by enhancing uptake of carbon, and reducing GHG emissions by substituting biological products for fossil fuels (IPCC, 2014). Some mitigation opportunities do not require additional or new technologies and have the potential to be effectively implemented over a short timescale, and offer a range of co-benefits such as improved productivity, lower financial and environmental costs, as well as synergies with agricultural adaptation. There are also demand-side options for reducing GHG emissions from agriculture, mainly by reducing food waste and changing diets (ibid).

However, agricultural mitigation is not a one-size-fits-all solution, and no single rule or method can effectively be implemented across a broad scale as a ‘rule of thumb’. Mitigation options in this sector vary significantly according to theme and location, and the benefits from contextual and local-level knowledge and understanding of this complex sector will help to implement real-world actions.¹ As for other sectors, addressing atmospheric agricultural GHG emissions will play an important role in limiting the global average increase to 2°C, and acting earlier and more ambitiously will increase the likelihood of this goal being achieved (IPCC 2014).

¹ For example FAO’s [Climate Smart Agriculture Sourcebook](#).



Making adaptation and mitigation work together: climate smart agriculture

Over longer timeframes, the need to undertake adaptation and mitigation activities concurrently becomes compelling: adaptation alone may struggle to negate severe climate impacts later in the 21st century. Timely implementation of mitigation actions alongside adaptation actions will limit the likelihood of future dangerous climate change, while increasing the effectiveness of longer-term (i.e. post-2025) adaptation strategies.

The synergies between agriculture mitigation and adaptation are not yet fully understood or quantified, and the complexity and diversity of local situations makes generalisations difficult. However, it is increasingly clear that adaptation and mitigation action are mutually supportive. For instance, a recent study looking at scenarios for impacts up to 2050, estimated that an investment of US\$225 billion in agricultural adaptation measures could mitigate the negative yield impacts associated with predicted temperature and rainfall changes (Lobell et al, 2013). In doing so it would also save 61 million hectares from conversion to cropland, resulting in 15 gigatonnes CO₂ equivalent fewer emissions by 2050.

‘Climate-smart agriculture’ is emerging as a concept to identify those practices that make agriculture part of the solution to climate change. It builds on a number of existing best practices, but also seeks the development of new practices and technologies that can jointly support mitigation and adaptation to improve agriculture’s sustainability. In ‘climate-smart’ agriculture, climate change is effectively mainstreamed into activities and programmes so that the linkages between climate change, food security and livelihoods are explicitly taken into account in decision making. Mitigation and adaptation are thus not considered separately but instead as mutually reinforcing outcomes.



SECTION 2

Historic overview of relevant events and progress made

A short history of the UNFCCC

The United Nations Framework Convention on Climate Change (UNFCCC) was adopted as one of three Conventions at the UN meeting in Rio de Janeiro, Brazil, in June 1992 and entered into force in 1994. It was the first international political response to climate change and set out a framework for action aimed at stabilising concentrations of greenhouse gases in the atmosphere to avoid ‘dangerous anthropogenic interference’ with the climate system.

In 1997 the Kyoto Protocol was adopted, setting binding targets for 37 industrialised countries for reducing emissions on average by 5% from 2008-2012 (with 1990 as base year). The Kyoto Protocol also facilitated the development and deployment of adaptation techniques to help increase resilience to the impacts of climate change.


To further international action on climate change, in 2005 the Ad Hoc Working Group for the Kyoto Protocol (AWG-KP) was established with the aim of discussing further commitments for industrialised countries under the Kyoto Protocol. In 2007, the Bali plan of action was also established, giving birth to the Ad Hoc Working Group on Long-term Cooperative Action (AW-LCA). The goal of the AWG-LCA negotiations was to expand participations to climate change activities to countries outside of the Kyoto Protocol by enlarging the scope of issues and the number of commitments made by Parties. The mandate under AWG-LCA guided the negotiations until 2013 when it concluded its work in Doha, Qatar, with the adoption of the “Doha Climate Gateway” package of decisions.

In the meantime, in 2011 at COP17 in Durban, South Africa, the Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP) was created. The ADP is aimed at negotiating a protocol, another legal instrument or agreed outcome with legal force under the UNFCCC that is applicable to all Parties. Negotiations should be completed by 2015 and be effective by 2020.

Agriculture in the UNFCCC

Agriculture was not part of the key issues originally negotiated under the UNFCCC AWG-KP or AWG-LCA. However, there have been discussions about its role in climate change mitigation and adaptation since 2005, with a view to exploring how agriculture may be integrated into the negotiations.

These discussions have occurred on the basis that the UNFCCC text (article 4) includes agriculture, calling for “cooperation in preparing for adaptation to the impacts of climate change in agriculture, as well for promotion and cooperation in the development and transfer of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases in agriculture.” It also references the impact of climate change on food security (article 2).




Since 2005, there have been a number of activities on the subject of agriculture:

- In 2005, several workshops were held under the Subsidiary Body for Scientific and Technological Advice (SBSTA), and agriculture-related topics were discussed, including 'Agriculture, forestry and rural development' (May 2006) and 'Non-CO₂ emissions, including methane recovery and utilisation' (December 2007).
- In 2007, the IPCC's 4th assessment report analysed the potential future effects of climate change on agriculture and identified current knowledge gaps to be addressed
- In 2008, at the request of AWG-LCA, the UNFCCC Secretariat prepared a technical paper on the challenges and opportunities for mitigation in the agricultural sector, which was discussed in March 2008 at an in-session workshop, along with submissions from Parties.
- In September 2008, a dedicated drafting group for agriculture was established to discuss a draft text on 'cooperative sectoral approaches and sector-specific actions in agriculture'. This draft text proposed establishing a SBSTA work programme on agriculture.
- From 2008 to 2010, this proposal was discussed in working groups under LCA but without agreement.
- In 2011, in the final text from COP17, Parties and observers were invited to submit their views on agriculture to SBSTA, with the aim of exchanging views to enable the COP to adopt a decision at its 18th session the following year.
- By May 2012, SBSTA had received 20 submissions from parties. An exchange of views on issues relating to agriculture was initiated, and continued in during the December 2012 session, when Parties once again agreed to continue discussions at the SBSTA session in June the following year.
- In 2013, Parties discussed issues related to agriculture at the SBSTA session in June. A workshop was then organised during COP19 in November 2013. However, aside from the workshop, Parties did not discuss agriculture during COP19. SBSTA concluded that the Secretariat should prepare a workshop report to be discussed during the SBSTA meeting in June 2014, together with submissions from Parties and observers.
- In 2014, the IPCC 5th assessment report Working Group II published an update of the potential future effects of climate change on agriculture, identifying knowledge gaps and increased urgency for adaptation in the sector.

Related sectors & activities

Despite agriculture not having been 'officially' included in the UNFCCC, many countries are already reporting emissions and removals from the agriculture sector under either land use, land use change and forestry (LULUCF) or REDD, and agriculture is often included in country's NAMAs and NAPAs. The experience in developing accounting systems under LULUCF, as well as in creating supporting and understanding for REDD, holds potential lessons for agriculture.



Box 1 What is LULUCF?

LULUCF refers to the direct, human-induced, emissions and removals from Land Use, Land Use Change and Forestry activities reported for by Annex 1 countries that are also Parties to the Kyoto Protocol.² Activities in the LULUCF sector can be used to offset GHG emissions, for example increasing removals by planting trees, or avoiding emissions by curbing deforestation.

Developed countries are required to submit information (reporting) on their national GHG inventory on a yearly basis, and they also submit 'National Communications' according to dates set by the COP. Developed countries that have ratified the Kyoto Protocol must also include supplementary information (accounting) to show compliance with their commitments under the Kyoto Protocol.

Developing countries also submit a 'National Communication', which includes a national GHG inventory (reporting) and also have the option of reporting under the REDD+ regime.


However, LULUCF does not provide a full view of the emissions that come from land management, land use change, agriculture and forestry. These are all covered by the national GHG inventories done by all Annex 1 countries; but in the GHG inventories, emissions are reported by sectors (energy, agriculture, LULUCF), so the full impact of emissions from land management, land use change, agriculture and forestry can only be found by summing up emissions and removals from different sectors.

LULUCF

As mentioned in box 1, Annex I countries that are Parties to the Kyoto Protocol must account for the emissions from LULUCF through supplementary information. Given the close linkage between agriculture and LULUCF, the experience of developing the accounting system under LULUCF can provide some insights as to what would be needed for a similar effort in agriculture.

- Activity vs land use: Under the Kyoto Protocol, parties account for specific *activities* in their land sector, which is different from the land use approach taken for reporting under the Convention. The concept of activity instead of the land use approach is to capture activities that are human induced since 1990.
- Harmonisation vs flexibility: Part of the complexity of the LULUCF system stems from efforts to produce an accounting regime under the Kyoto Protocol that would both give a high level of harmonisation between parties to ensure comparability and transparency, but at the same time leave room for national circumstances. This means that there is flexibility built into the LULUCF accounting system, as for example on forest definitions. According to the definition, 'forest' has a minimum area of 0.5-1 hectare (ha), minimum tree height at maturity is 2-5m, and minimum tree crown cover is 10-30%. It also includes areas that are currently below these thresholds if it is an area that is expected to become a forest (according to the above), for example a young plantation or an area that was previously forest and was destroyed by pests, disease, fire, etc. The definition should, furthermore, be

² Parties to the Kyoto Protocol, Annex-1, non-Annex-1, and Annex B Parties are listed in the Kyoto Protocol, available at: http://unfccc.int/kyoto_protocol/items/2830.php



consistent with FAO and national definitions. This means that a forest can look different in different countries. This type of flexibility is also present in other areas – definitions of managed land and of Article 3.4 activities are broad and provide only general definitions to accommodate national differences. Many of these regional and national differences that needed to be considered in the LULUCF accounting regime will be similar in the agriculture sector across regions and countries.

- Differences with accounting in other sectors: The LULUCF sector has specific and different accounting rules compared to other sectors as some features do not exist in other sectors or have much smaller impact. Some of the special features are emissions and removals, permanence, natural effects, legacy effects, relative size, uncertainty, and the need for recalculations as new information becomes known.

LULUCF is often mentioned alongside ‘AFOLU’ – Agriculture, Forestry and Other Land Use. AFOLU is a way of defining a ‘sector’ and is now being used by the IPCC as a means of bringing together land-based activities in its analysis. In its [2006 Guidelines](#), the IPCC (2006) defined the AFOLU sector, and Annex 1 countries are expected to use these guidelines from 2015 onwards for their greenhouse gas reporting. However, while LULUCF has been a recognised agenda item under the UNFCCC, AFOLU is not itself an agenda item for now.

REDD

The objective of REDD was to find ways to reduce emissions from deforestation and find ways to create positive incentives for forest conservation. The concept for Reducing Emissions from Deforestation and Forest Degradation (REDD) emerged in the 1990’s, and in 1997, the text of the Kyoto Protocol formally ‘introduced’ forests in Convention, through articles 2 and 3. However at that stage ‘forests’ were under the LULUCF umbrella, not as a standalone issue and there was disagreement between countries as to whether forest conservation should be included in the first commitment period under the Kyoto Protocol. In 2001, forest conservation was excluded from the first commitment period; however, in 2005, a group of countries under the umbrella of the ‘Coalition of Rainforest Nations’ reintroduced the topic into the negotiations.³ SBSTA began considering the issue in 2006, recognising its potential role as part of the mitigation efforts to achieve the objective of the Convention. REDD negotiations carried over several years, with additional activities being included under REDD+. In 2013, COP19 adopted the Warsaw Framework for REDD+.⁴

³ For more details, see: Tropical Forest Group. (2007) *A History of Climate Change and Tropical Forest Negotiations*. Santa Barbara. Available at: http://tropicalforestgroup.org/wp-content/uploads/2012/09/REDD_history.pdf; Carbon Planet. (2009) *White Paper: A History of REDD Policy*. Adelaide. Available at: http://unfccc.int/files/methods/redd/submissions/application/pdf/redd_20091216_carbon_planet_the_history_of_redd_carbon_planet.pdf

⁴ For key decisions on REDD, see: UNFCCC. (2014) *UNFCCC documents in relation to reducing emissions from deforestation and forest degradation in developing countries* [accessed 24th May 2014]. Available at: <http://unfccc.int/methods/lulucf/items/6917.php>



Box 2 REDD timeline

- 1997: Kyoto Protocol includes forestry in articles 2 and 3
- 2001: Forest conservation is excluded from the first commitment period under the Kyoto Protocol
- 2005: The REDD agenda item ‘Reducing Emissions from Deforestation in Developing Countries’ is first introduced at COP11
- 2006: SBSTA begins considering REDD, noting its potential role as part of mitigation efforts to achieve the ultimate objective of the Convention
- 2007: The first policy work on REDD is adopted at COP13 and discussions begin with the World Bank on funding for REDD
- 2008: The concept of REDD+ is introduced, adding to the REDD agenda “the role of conservation, sustainable management of forest and enhancement of forest carbon stocks in developing countries”
- 2008: UN-REDD is officially launched at COP14
- 2009: The World Bank approves support for REDD, and the UN-REDD programme launches the initial readiness process (phase 1) in nine pilot countries
- 2010: REDD is officially adopted at COP16
- 2012: Funding for REDD totals US\$118.9 million with 16 partner countries involved
- 2013: Warsaw Framework for REDD+ is adopted by COP19


The history of REDD in UNFCCC negotiations can be seen as a possible path that negotiations on agriculture could take. At the start of negotiations, the issue of forests was divisive and there was a lack of knowledge and understanding that parallels some of the current knowledge gaps on agriculture and climate change. Similar to agriculture, a SBSTA work programme was then established to deal with some of those questions, and it eventually contributed to REDD being included in the Convention.

However, while REDD can be a useful reference point for a work programme under SBSTA, it should be noted that it is not directly comparable to agriculture.⁵ REDD is an effort to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development. A similar mechanism on agriculture has not been envisaged to date, even if there could be linkages to the Green Fund. REDD also concerns only some countries, which will not be the case for an inclusion of agriculture, which is an important sector in nearly all countries. In addition, the agriculture sector is fundamentally more complex and larger than REDD, which amplifies the challenges in the negotiations.

National Appropriate Mitigation Actions (NAMAs)

NAMAs were formally introduced through the Bali Action Plan in 2007, and the objective was to enhance national mitigation actions by non-Annex 1 parties. NAMAs are interesting in this context, as 62% of all non-Annex 1 parties have identified at least one NAMA related to LULUCF, and the Group of African States has made a submission containing a list of NAMAs in the agriculture and LULUCF/agriculture sectors (Canaveira, 2013). This shows that there is existing interest from non-Annex 1 parties for mitigation actions in the LULUCF and agriculture sectors, making these sectors potentially important for many parties when

⁵ For a more in depth analysis, see: Negra, C. & Wollenberg, E. (2011) *Lessons from REDD+ for Agriculture. CCAFS Report no. 4. The CGIAR Research Program, Climate Change, Agriculture and Food Security (CCAFS)*. Copenhagen, Denmark: CGIAR.



negotiating a 2015 agreement. This also means that some countries have experience with reporting and accounting from the agriculture sector.

National Adaptation Programmes of Action (NAPAs)

NAPAs were introduced as a concept at COP7 in Morocco in 2001 and provide a process for LDCs to identify priority activities that will respond to their need for adaptation. Since then, the UNFCCC secretariat has received NAPA submissions from 50 countries. Many countries mention agriculture as a priority area where adaptation is urgently needed and, as of May 2014, 46 countries have NAPA projects related to agriculture and food security. This prominent place occupied by agriculture in NAPAs shows that adaptation in the agriculture sector is likely to be an important consideration for many parties in negotiations related to agriculture.



SECTION 3

Main challenges in agriculture discussions

‘Stumbling blocks’ in negotiations to date

Several sets of issues have emerged as ‘stumbling blocks’ in the discussion on agriculture, under both the LCA and SBSTA.


Structure and framing:

- Validity of ‘sectoral’ approaches: When discussions on agriculture under AWG-LCA began in 2009, agriculture was initially discussed under sectoral approaches with bunker fuels. There is no link between the two sectors in terms of substantial technical matters for the negotiations, but this structure caused wider debates about the validity of a sectoral approach, and the rationale for discussing some sectors and not others.
- Positioning in mitigation chapter: While the LCA as a whole included adaptation as well as other issues, such as financing and technology transfer, ‘sectors’, including agriculture, were discussed under the mitigation chapter. This raised concerns among parties who perceived adaptation as a priority for agriculture.
- Overall negotiating issues: Agriculture was entangled in broader questions related to the framework of the LCA, as well as issues such as trade, national circumstances, finance, and Common but Differentiated Responsibilities (CBDR), which were not specific to agriculture but that parties felt were relevant. These issues have continued to be raised in the context of SBSTA.

Complexity and sensitivity of the sector:

- Gaps in scientific and technical knowledge: Knowledge regarding the impact of climate change, and the impact of different practices and policies on agriculture, is perhaps not as complete and thorough than in other sectors. While this underpins the value of a SBSTA work programme, it also creates uncertainty about what type of actions or priorities should be envisaged.
- Technical challenge of ‘MRV’:⁶ Some negotiators are concerned that technical challenges (e.g. monitoring carbon sequestration by millions of farmers and pastoralists) are too great to develop agriculture agreements on adaptation and mitigation.
- Importance for food security and economic development: The importance of the agriculture sector for all countries’ food security and economies contributes to difficulties in negotiations as Parties are concerned about possible negative impacts of action for example potential restrictions on conversion of land to agricultural use.
- Complexity of the sector: Additionally, the sector is complex and encompasses a broad range of activities, so it has proven difficult to understand where to start with the many possible issues that could be valuable topics of discussion. As research on those issues progresses outside of the UNFCCC, discussions may become easier.

⁶ Monitoring, reporting and verifying.

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- Trade: A concern from some agricultural producers is that any mitigation measures for agriculture could become nontariff trade barriers and restrict trade from ‘high-emission agriculture’.

Adaptation and mitigation:

- Balance: There have been ongoing discussions about how to balance mitigation and adaptation priorities. The history of climate change negotiations has often placed emphasis on mitigation. Yet, as the scope of activities considered and the number of participating Parties has increased, the role of adaptation has come to the forefront.
- Interpretation of ‘mitigation’: Mitigation in the agriculture sector can be understood in terms of absolute reduction in direct agricultural emissions, or reductions in emission intensity – especially important where increases in productivity are needed that may require trade offs with increase emissions with higher yields. Given agriculture’s link to livelihoods and food security, and with growing demand for food and other agricultural goods driven by population growth and rising incomes, there are differences in interpretation.



SECTION 4

Progress on agriculture and climate change outside of UNFCCC

While discussions on agriculture in the UNFCCC have been slow, there has been progress on mainstreaming climate change into agriculture policies and programmes. This has included work under the G8/G20 (G8, 2013; G20, 2013), as well as featuring prominently in the post 2015 development agenda discussions,⁷ including in the Sustainable Development Goals (SDGs) negotiations (UN, 2014).

At the regional level, several regional initiatives also exist that are mainstreaming agriculture and climate change. For example, NEPAD spearheaded agriculture development through [CAADP](#) and climate-smart agriculture is integrated into its efforts. There is also a dedicated [Climate Change programme within NEPAD](#) which supports the coordination of programmes region-wide and plays an important advocacy role.

The UN system organisations have also stepped up their work on climate change and agriculture. For example, the FAO has undertaken extensive work on climate change, promoting climate-smart agriculture and providing research on key questions related to mitigation and adaptation. IFAD has also scaled up its work on climate change, supporting innovative approaches to support resilience and adaptation of farmers in developing countries, for example through the new [Adaptation for Smallholder Agriculture Programme \(ASAP\)](#).


In addition, a number of initiatives have been set up to target specific agriculture and climate change issues. For example, the [Global Research Alliance on Agricultural Greenhouse Gases](#) brings together countries and other partners around key research programmes to find ways to produce more food while minimising GHG emissions. The [Climate and Clean Air Coalition's Agriculture Initiative](#), launched in 2013, is focused on reducing emissions from short-lived GHGs and has been focused on two components: manure management and paddy rice.

Most recently, a new [Global Alliance on Climate Smart Agriculture](#) is being formed. This Alliance will promote climate smart agriculture that bridges traditional sectoral, organisational and public/private boundaries to:

- Achieve sustainable increases in the productivity of food systems;
- Adapt people's livelihoods that are threatened by climate change;
- Sequester carbon and contribute to mitigation (reduced emissions and less deforestation as a result of agriculture).

While all these initiatives are very important, their nature is fundamentally different from that of the UNFCCC. In general, those initiatives are focused on specific issues or topics, helping

⁷ For example, see: ON 2015. (2014) *Report of the High Level Panel of Eminent Persons on the Post 2015 Agenda*. Available at: <http://report.post2015hlp.org/digital-report-executive-summary.html>



to promote knowledge creation and sharing, diffusion and uptake of ‘climate-smart’ practices, and increases in the flow of funding towards agriculture mitigation and adaptation.

The UNFCCC occupies a distinct space that differentiates it from those organisations or initiatives on climate change:

- It is the only venue with such a large and representative membership, where discussions on climate change benefit from a full spectrum of views and experience, which gives legitimacy.
- As the recognised UN body and framework on climate change, it serves to set global priorities in a way that other initiatives may not.
- As a body focused on more than just agriculture, it offers the possibility to fully assess cross-sectoral impacts and other linkages beyond agriculture itself to improve coherence in policy making.
- The funding capacity and technology transfer element of UNFCCC could be important for agriculture.

Action to increase agriculture’s resilience to climate change requires action at many levels (local, national, regional, international) and the involvement of a wide range of actors, from governments, research organisations, and UN agencies to farmer organisations and consumers. However, given the UNFCCC’s unique position and role, agriculture needs to be addressed in that forum as well.

Furthermore, given the significance of agriculture’s contribution to global emissions and its potential for adaptation, it is likely that an agreement seeking to address mitigation and adaptation would need to include the sector to be successful in effecting change. Finally, agriculture is, in many ways, already ‘included’, such as through LULUCF, but mostly negatively as a driver of change, so there would be benefits from greater and broader inclusion in UNFCCC to help inform decisions on other issues, such as forestry.



SECTION 5

Issues for consideration in the UNFCCC

There are a number of issues related to agriculture that would benefit from being discussed in the UNFCCC and which cannot be addressed similarly elsewhere. Many may not be addressed by 2015, but awareness of these topics could help inform what is needed in 2015 to set the scene for future discussions on agriculture.

Priorities, synergies and trade-offs in mitigation and adaptation

Discussions in UNFCCC need to appreciate priorities of adaptation, in particular short-term priorities as temperatures are rising. It should also consider a spectrum of mitigation policies that not only reduce the risk of dangerous climate change but also protect the sector in the long term. Consideration for policies that serve mitigation and adaptation together could include:

- Knowledge transfer policies: extension and agricultural support services that increase the efficiency of agriculture, increase uptake of good practices and improve resilience of farmers.
- Economic policies: market-friction instruments to shift demand towards mitigation, impacting supply and demand.
- Supply and demand side measures: A climate agreement that incorporates agriculture could help to catalyse a broader approach to assuring food security through market based measures, insurance and public-private partnerships.
- Finance: financial incentives and financial tools such as risk insurance, improved credit and other measures to mitigate risk of uptake of new practices and increase resilience to climate variability and shocks.
- Regulations: Regulations could help address 'hotspots' in emissions in the food chain and in sub-sectors, for instance, emission caps on agricultural sub-sectors that are high-intensity or high-level emitters. Regulations can also help transition towards more sustainable practices, in particular those with co-benefits.
- Institutionalisation: Motivating institutionalisation (government, non-government and commercial) of best practices (including knowledge transfer), expertise, capacity and resources.
- Communication: Improved communication at and between the global and local level to rally support for planning and enable the early identification of food insecurity hotspots resulting from climate change.

Relationship to other sectors and other mechanisms under UNFCCC

As negotiations evolve and progress is made on other issues, consideration of how agriculture may be better aligned or integrated with other sectors, such as forestry and LULUCF are would be important. The IPCC 2006 guidelines merged agriculture and LULUCF into one sector referred to as AFOLU, already signalling the relevance of this issue. In addition, linkages to other mechanisms that are part of UNFCCC, such as the Green Climate Fund (GCF) or the Technology Mechanism, are also relevant to enable progress.



Measurement and indicators

The ability to measure and report on actions is central to mitigation activities, but these issues could be of similar relevance for adaptation. Assessing best methodologies for measuring emissions from agriculture, measuring change over time, and including lessons from LULUCF would be useful to enable a comparable basis for understanding the impact of mitigation activities in agriculture globally over the long term. In addition, metrics for measuring adaptation impacts are also valuable in order to inform policy making and national strategies, but are currently less developed.

Coherence with other international processes

As illustrated earlier, there are a number of other international processes, whether directly related to climate change or more broadly to sustainable development, where actions are being undertaken, knowledge created and exchanged, and commitments made. How coherence and synergies can be achieved with such processes is important to ensuring relevance of the UNFCCC.

Flexibility and comparability

Changes in climate conditions, but also in demand drivers and country circumstances, require consideration as to how any agreement or actions under the Convention can offer the level of flexibility necessary to enable as many countries as possible to participate, while also ensuring that contributions can evolve over time to reflect advances in knowledge, technologies, and changes in circumstances. This is useful to ensure that participation in agriculture-related actions is not perceived as posing any risks to national food security. Discussions around a format or common 'template' for stating activities related to national contributions could also be useful to help enhance information sharing and comparability across the range of national contributions.

Timeframe


The issue of timeframe for action is an important topic that cannot be discussed and tackled in a similar way in other venues or fora, because it benefits from the participation of all countries and is closely tied to Parties' overall plans. Understanding where priorities on agriculture lie up to 2025 and then post 2025 would help then inform activities at the national level, as well as the activities of programmes and initiatives outside of UNFCCC.

Definitions

A definition of 'agriculture' is likely to be an important topic before agriculture can be incorporated into an agreement. This is a discussion that needs to take place within UNFCCC as the participation of all countries, while perhaps making the discussion more complex, is needed to ensure its legitimacy. Definitions of agriculture can range from a globally connected system involving transport, industry, land use and technology sectors through to a ring-fenced focus on land use and productivity. Some definitions extend into aquaculture, fisheries and forestry – themselves complex sectors with ecological cycles that influence climate change. The definition (or framing itself) could determine to a certain extent how agriculture overlaps with LULUCF and REDD.

Related and cross-cutting issues

Agriculture has an impact on a number of issues related to sustainable development, including gender, poverty reduction, and human rights. Many of these cross-cutting issues are being addressed through the other initiatives and programmes outside of UNFCCC but,



as they deeply affect practice and implementation, discussions of linkages and cross-cutting issues could be useful in the UNFCCC too. For example, there is extensive literature documenting the importance of gender consideration in agriculture, including on the role of women in implementing mitigation and adaptation measures.⁸ Gender is also an important differentiating line in many contexts in terms of how the impacts of climate change will be felt by local populations, and gender analysis can help ensure that programmes are delivered with success. In the UNFCCC, gender has started to be more visibly discussed, with efforts being made to apply gender mainstreaming within the Convention, as well as to engage parties in substantive discussion on the gender dimension of climate change (UNFCCC, 2013).

⁸ See, for instance: UNFPA. (2009) *Climate Change Connections: A Resource Kit on Climate, Population and Gender*. New York; IFAD. (2014) *The Gender Advantage: Women on the front line of climate change*. Rome; UNDP. (2013) *Overview of Linkages between Gender and Climate Change*. New York; FAO & CCAFS. (2013) *Gender and Climate Change Research in Agriculture and Food Security for Development*. Rome; FAO. (2011) *State of Food Security Report*. Rome; FAO, IFAD & WFP. (2011) *Gender dimensions of agricultural and rural employment: Differentiated pathways out of poverty*. Rome; World Bank. (2012) *World Development Report: Gender Equality and Development*. Washington, D.C.



SECTION 6

Options for integrating agriculture into a 2015 agreement

Strategic options for including agriculture in a 2015 agreement

As illustrated by the experience with LULUCF and with REDD, it is likely that a full integration of agriculture in the UNFCCC will take time, as issues such as accounting, reporting, adaptation, or co-benefits would need to be worked out. Given the time available before COP 21 in 2015, and the fact that these discussions have not begun, it is unlikely this can be fully completed in the next 18 months.

The 2015 agreement nonetheless presents an opportunity for shaping how discussions on agriculture may be framed post-2015, even if much additional work needs to be undertaken afterwards to work out specifics (UNFCCC, 2014a). SBSTA also offers an avenue to discuss agriculture in the lead to 2015 and possibly afterwards, as there is an existing agenda item on agriculture that can be leveraged.

Efforts under these two streams can be pursued independently but also complement each other. Consideration could be given to other avenues under UNFCCC where agriculture could be integrated, such as under the Nairobi work programme or the work of the Adaptation Committee.

Given the time limitation, the scope of issues to cover, as well as the stumbling blocks that have hampered discussions to date, 'progress' in 2015 on agriculture would mean that the 2015 agreement creates a framework that:

- **Supports action by parties on agriculture in the pursuit of their overall strategies for mitigation and adaptation, including through access to financing and technology transfer;**
- **Promotes international coordination and knowledge sharing to ensure global progress and address any risk of negative impacts from national and international policies.**

Such a framework would help ensure that agriculture is not effectively precluded from being integrated in the future, and encourage actions by countries in order to speed up mitigation and adaptation, even as agriculture is yet to be fully included in the UNFCCC. It does so by offering a space for knowledge exchange, building common understanding on key issues and by providing a mandate for discussion on agriculture. A 'stronger' outcome on agriculture would not only 'support' action by Parties, but also encourage increasing action over time and mandate integration of agriculture by 2020.



Option A: Stepping back

- Do not seek anything specific on agriculture in the 2015 text; possibly continue discussion under SBSTA but without seeking a work programme.
- Instead, focus on achieving a balanced agreement in 2015 that offers both sufficient flexibility so that as many countries as possible participate, while offering reassurance and certainty that the paths taken by Parties are convergent and comparable over the long term.

Benefits: As some of the existing ‘stumbling blocks’ may be resolved as part of the broader negotiations in 2015, it would then be possible to revert to the SBSTA agenda item, and national contributions may be able to provide a useful basis for starting discussions post 2015. In addition, this may allow more time for lessons learned and knowledge gathered through other initiatives and organisations to help inform agriculture discussions in UNFCCC. This option offers perhaps the advantage of giving the opportunity for a more ‘bottom-up’ approach to including agriculture in the UNFCCC, built on national priorities.

Challenges: Risk that agriculture will continue to be postponed because of a lack of an explicit mandate, in particular if the level of ambition set out in 2015 is not sufficiently high that it requires action in the agriculture sector over time. It does not address the need to share knowledge on agriculture or to consider positive aspects of agriculture in REDD or LULUCF. Leaving agriculture ‘out’ of the UNFCCC for much longer increases the gap in action and knowledge compared to other sectors, which could be damaging to agriculture but also to the overall goals of the Convention.

Option B: Keep focus on agreeing a SBSTA work programme


- Build on previous discussion and workshops done under SBSTA to seek an agreement on a work programme.
- The work programme will help inform and facilitate inclusion on agriculture in countries’ activities (such as through NAMAs and NAPAs) and, if concluded in time, spur inclusion of agriculture in the 2015 agreement.

Benefits: The option would further common knowledge so that Parties have sufficient understanding about the sector and are able to make a decision about how and when agriculture should be integrated. It would also help support further activities on agriculture in national plans through knowledge exchange.

Challenges: Knowledge sharing would be the primary benefit of this approach, but it may not be sufficient to help spur action on a scale and level sufficient to significantly contribute to the objectives of the Convention. In addition, a work programme would be difficult to achieve in the short time before COP21, as previous stumbling blocks are likely to still be relevant and limit the likelihood of a decision by 2015.

Alternative: Seek a work programme, but without a 2015 ‘deadline’ for completion. The outcomes of the work programme would still be able to inform decision making and negotiations between the 2015 deadline and implementation of the agreement from 2020. However, if the stumbling blocks identified are not resolved before 2015, an agreement on a work programme would still be unlikely.

Alternative: Commission the IPCC to produce a report specifically focused on agriculture. This could take place while the 2015 negotiations are underway and help inform work in the 2015-2020 period; it would not require an agreement on a work programme in SBSTA. The main challenge is that its findings remain external and not necessarily endorsed by all



Parties, and it may not replace the need to have a forum to discuss agriculture in the UNFCCC.

Option C: Seek recognition of agriculture's importance in the 2015 text

- A mention of agriculture in the preambular or 'chapeau' section of the 2015 agreement, setting the stage for further discussion on agriculture.
- A mention noting that agriculture: 1) is an important sector for both climate change mitigation and adaptation that needs to be fully taken into account; 2) is a sector with a unique situation due to its primary role in food production for food security; 3) the importance for mechanisms or tools that are put in place to take that specificity into account.

Benefits: Agriculture would be recognised specifically. The text would not be very prescriptive but would set the stage for future work. The mention would provide reassurance and a basis for common understanding without seeking a level of detail and specificity that may be difficult to achieve by 2015. National contributions may then be a useful basis for starting discussions post 2015 on inclusion.

Challenges: Agriculture is recognised but there is no specific mandate for follow up. Depending on the precise wording, the lack of specificity may lead to no action. In addition, if the stumbling blocks are not resolved in the broader agreement, further action may be difficult. Pursued alone, this does not immediately provide for a space for knowledge sharing.


Alternative: Prioritise this option but continue simultaneous discussions under SBSTA to advance knowledge sharing. This could be done in the form of thematic workshops rather than by seeking a work programme, *per se*.

Option D: Establish a 'land sector' approach in the 2015 agreement

- A decision in the 2015 text to bring together REDD, LULUCF and agriculture into one 'land' sector, with further work post 2015 to work on the practical aspects of how this will be done, in time for the 2020 implementation.

Benefits: It builds on synergies and linkages between forestry, agriculture and LULUCF and seeks to create a holistic framework for the land-based sectors, including a consistent accounting and reporting system. It allows the positive elements related to agriculture to be considered, rather than only agriculture as a driver of negative change. It would enable policy decisions to be made for the sector as a whole and efforts in the sector would most likely be better reflected in national accounting. It would allow approaches to work on a higher geographical scale, compared to the more fragmented approach being used now in LULUCF/AFOLU and REDD+ accounting and reporting.

Challenges: Merging the current reporting and accounting regimes for LULUCF/AFOLU and REDD+ will be very complex. There are knowledge gaps on agriculture that need to be addressed so that 'merging' can be done well; this may require dedicated space for agriculture discussions. There is a risk of imbalance between mitigation and adaptation concerns as LULUCF and REDD are focused on mitigation, into which agriculture would bring the adaptation dimension. This is one of the most complex of the options and, given the difference between the level of integration of REDD, LULUCF and agriculture, it will be challenging to achieve by 2015.



Alternative: Establish a ‘land sector’ approach first starting with LULUCF and REDD, with the objective of integrating agriculture later. While work on ‘land sector’ integration takes place, work could take place in parallel on agriculture (possibly under SBSTA) to address knowledge gaps and agree common understanding on key issues. This would allow time to understand how adaptation could be integrated, for example quantifying adaptation and taking food security co-benefits into consideration when accounting for emissions.

Option E: Add agriculture to the work of existing bodies

- Seek to have agriculture considered under the Nairobi work programme on adaptation or by the Adaptation Committee.

Benefits: It does not require creating a new work programme; agriculture could benefit from being considered alongside other issues to generate a more holistic view of the sector and its impacts. It may ease some of the concerns that have been ‘stumbling blocks’ in the past. Using an existing agreed framework would give some level of confidence; progress in one of those fora may pave the way to a standalone stream of work on agriculture at a later stage.

Challenges: The lack of focus on agriculture may not give enough space or time for addressing knowledge gaps and establishing common understanding on key issues – agriculture may get ‘stuck’. In addition, both fora are focused on adaptation, which again raises the issue of addressing both mitigation and adaptation jointly – their mandates may not be well adapted to the broad scope of questions that need to be addressed in relation to agriculture. It would also not necessarily help to advance linkages with forestry and land use.

Alternative: The Nairobi work programme could possibly be leveraged to address the adaptation side of the agriculture discussion if mitigation was undertaken elsewhere, for example through work on a land sector. However, dissociating adaptation and mitigation is likely to be detrimental to the ability to form a nuanced and accurate understanding of dynamics in the agricultural sector, in particular around issues such as co-benefits. It would also not allow both issues to receive equal attention, as other issues than agriculture would take up time on the Nairobi work programme.

Summary

Based on the two objectives set out earlier for ‘progress’ in 2015, of 1) supporting actions by Parties on agriculture and 2) promoting international coordination and knowledge sharing, options B, C and D seem to be the most suitable avenues.

However, preferences for any of the options outlines above will depend on Parties’ overall objectives and priorities for the 2015 agreement. There are benefits and challenges to each option, and the ability to pursue most of them is strongly tied to how the rest of the negotiations on the ADP proceed. This is particularly important, because many of the ‘stumbling blocks’ identified require resolution at the general level – they are not only specific to agriculture. However, as agriculture is a complex and sensitive sector, it will also require political will to see it included and to give mandate for further work.



<p>A 2015 outcome that:</p> <ol style="list-style-type: none"> Supports action by Parties on agriculture in the pursuit of their overall strategies for mitigation and adaptation, including through access to financing and technology transfer; Promotes international coordination and knowledge sharing to ensure global progress and address any risk of negative impacts from national and international policies. 			
Option A			
Stepping back	<ul style="list-style-type: none"> Lets 2015 agreement sort 'stumbling blocks' Bottom-up approach building on national contributions Opportunity to learn more from initiatives outside UNFCCC 	<ul style="list-style-type: none"> May not see any action on agriculture due to lack of recognition Agriculture remains seen primary as negative drive of change in LULUCF/REDD 	<ul style="list-style-type: none"> - Does not hinder but does not explicitly support action by Parties on agriculture - Does not promote international coordination and knowledge sharing
Option B			
Focus on SBSTA work programme	<ul style="list-style-type: none"> Further common understanding and knowledge exchange Builds from national experience and perhaps national contributions Feeds into national plans 	<ul style="list-style-type: none"> Time frame to 2015 is very short 'Stumbling blocks' likely to persist 	<ul style="list-style-type: none"> +/- Does support action by Parties on agriculture but still limited + Does promote knowledge sharing - 'Stumbling blocks' and timeframe make success unlikely
Option C			
Recognition for agriculture in 2015 agreement	<ul style="list-style-type: none"> Sees agriculture included Not too prescriptive or detailed Sets the stage for future work Provides a basis for common understanding Dependence on broader 2015 agreement for solving 'stumbling blocks' is less than in option D 	<ul style="list-style-type: none"> No clear follow up, could lead to no action No immediate link to relevant sectors – LULUCF and REDD 	<ul style="list-style-type: none"> + Does support action by Parties on agriculture but in the longer term +/- Does not immediately promote knowledge sharing + 'Simplicity' of option may make success more likely - Less dependent on progress in 2015 negotiations on some of the 'stumbling blocks'
Option D			
Create a land sector in 2015	<ul style="list-style-type: none"> Brings agriculture 'in' Builds on synergies and linkages between forestry, agriculture and LULUCF 	<ul style="list-style-type: none"> Complexity of merging or creating new systems Does not necessarily offer a space for dedicated 	<ul style="list-style-type: none"> + Does support action by Parties on agriculture +/- Promotes knowledge sharing but balance and focus may be inadequate



	<ul style="list-style-type: none"> • Basis for a holistic framework for the land-based sectors • Allows the positive elements related to agriculture to be considered 	<p>agriculture discussions – agriculture could be ‘overwhelmed’</p> <ul style="list-style-type: none"> • Depends on broader 2015 agreement for solving ‘stumbling blocks’ 	<p>– Complexity of ‘land sector’, mitigation/adaptation balance may make success a challenge; dependent on progress in 2015 negotiations on some of the ‘stumbling blocks’</p>
Option E			
Add agriculture to existing bodies	<ul style="list-style-type: none"> • Does not require creating a new work programme • Could create better understanding of cross-cutting issues • May ease some of the ‘stumbling blocks’ • Progress could pave the way to a standalone stream of work 	<ul style="list-style-type: none"> • Not clear that ‘stumbling blocks’ that have slowed progress on agriculture would not preclude inclusion in a land sector • Lack of focus on agriculture may not give enough space or time for addressing knowledge gaps • Risk of imbalance between mitigation and adaptation concerns • No link to other relevant sectors – LULUCF and REDD 	<p>+/- Does support action by Parties on agriculture but being constrained by existing mandates and adaptation/mitigation balance is an issue</p> <p>+/- Does promote knowledge sharing but, similarly, adaptation/mitigation balance is an issue</p>

Table 1 Summary table of options



SECTION 7

Conclusion

While agriculture has gained in visibility and prominence in discussion and programmes on climate change outside of UNFCCC in recent years, there has been little progress in seeing the sector recognised and adequately integrated within it. This has persisted despite evidence emerging from numerous reports, not least the IPCC's AR4 and AR5 reports about the important role of agriculture for both mitigation and adaptation.

The complexity of the dynamics of the UNFCCC negotiations, as well as uncertainties about how to tackle such a sensitive sector, have been some of the key stumbling blocks in delivering progress on agriculture.

As countries seek to reach an ambitious agreement in 2015 that will contribute to creating a framework for ambitious action on climate change, including agriculture in negotiations becomes ever more pressing. While this may not be achieved in full by 2015, there is an opportunity to see a 2015 agreement set the direction for agriculture to become integrated into UNFCCC, be it standalone or in a 'land sector'.

The ability to realise the opportunity presented by 2015 depends on three elements: 1) an acknowledgement and appreciation of the importance of agriculture and its unique position due to its role in food security and livelihoods; 2) a commitment by all parties to discuss both adaptation and mitigation aspects of agriculture; 3) political will to engage in such a discussion and to signify this through language in the 2015 agreement.

In addition, the ability to move agriculture forward will depend on the agreement Parties reach in 2015. In particular, the nature of the agreement regarding commitments and responsibilities on emission reductions will be essential to shaping what is possible on agriculture.

The value and benefit of the activities taking place outside of UNFCCC are not diminished by the importance of seeing agriculture included. It is clear that it is outside of UNFCCC that most knowledge is generated and where programmes and activities geared towards implementation are taking place. However, UNFCCC is a unique forum and agriculture needs to be included in the negotiations so that UNFCCC's work can be ambitious. The lessons learned and knowledge created by other initiatives can then feed into UNFCCC and support parties' activities to mitigate and adapt to climate change.



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Annex 1 Important decisions

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