

REDD After Copenhagen:

The way forward

Peter Akong Minang Deborah Murphy

February 2010



REDD After Copenhagen: The way forward

Peter Akong Minang Deborah Murphy

February 2010

© 2010 International Institute for Sustainable Development (IISD)

Published by the International Institute for Sustainable Development

The International Institute for Sustainable Development contributes to sustainable development bv advancing policy recommendations international trade and investment, economic policy, climate change, measurement and assessment, and natural resources management. Through the Internet, we report on international negotiations and share knowledge gained through collaborative projects with global partners, resulting in more rigorous research, capacity building in developing countries and better dialogue between North and South.

IISD's vision is better living for all—sustainably; its mission is to champion innovation, enabling societies to live sustainably. IISD is registered as a charitable organization in Canada and has 501(c)(3) status in the United States. IISD receives core operating support from the Government of Canada, provided through the Canadian International Development Agency (CIDA), the International Development Research Centre (IDRC) and Environment Canada, and from the Province of Manitoba. The institute receives project funding from numerous governments inside and outside Canada, United Nations agencies, foundations and the private sector.

International Institute for Sustainable Development 161 Portage Avenue East, 6th Floor Winnipeg, Manitoba Canada R3B 0Y4

Tel: +1 (204) 958–7700 Fax: +1 (204) 958–7710

Email: info@iisd.ca Website: www.iisd.org

Preface

This paper was prepared for two workshops delivered by the International Institute for Sustainable Development (IISD) and the Alternatives to Slash and Burn Partnership for the Tropical Forest Margins at the World Agroforestry Centre (ASB-ICRAF). The workshops focus on reducing emissions from deforestation and forest degradation in developing countries (REDD), aiming to increase understanding of the international climate change negotiations, as well as provide information on experiences in the forestry sector to lay the technical and policy foundations for better REDD programmes.

The workshops, *REDD after Copenhagen: The Way Forward*, were held in Nairobi, Kenya, March 1–3, 2010 and Hue City, Vietnam, March 8–10, 2010.

These are the second in a series of workshops delivered with the generous support of the Government of Norway.

Table of Contents

Prefac	ce	i
Abbre	eviations and Acronyms	iv
1.0	Introduction	
2.0	COP 15 Outcomes on REDD	
2.1	Copenhagen Accord	
2.2	AWG-LCA text on REDD	
2.3	SBSTA decision on REDD	(
2.4	Relevant developments on LULUCF under KP	
2.5	Agriculture	
3.0	Key Areas for Moving Ahead with REDD Implementation	
3.1	Scope and scale	
3	3.1.1 Drivers of deforestation	11
3	3.1.2 REDD-plus and other relevant UNFCCC texts	
3.2	REDD safeguards	13
3	3.2.1 Global standards versus national circumstances	
3	3.2.2 The CDM experience on national rules for sustainable development	
3	3.2.3 Policy reforms	
3.3	Monitoring, reporting and verification	10
3	3.3.1 The IPCC Good Practice Guidance	
3	3.3.2 Phased MRV approaches	
3.4	Institutional arrangements	19
3.5	Financing	21
4.0	The Way Forward on REDD Negotiations and Implementation	23
Anne	ex I – NAMAs in the Land-use Sector Submitted to the UNFCCC	
Refer	rences	

Abbreviations and Acronyms

AFOLU Agriculture, Forestry and Other Land Use

ASB-ICRAF Alternatives to Slash and Burn Partnership for the Tropical Forest Margins at

the World Agroforestry Centre

AWG-KP Ad Hoc Working Group on Further Commitments for Annex I Parties

under the Kyoto Protocol

AWG-LCA Ad Hoc Working Group on Long-term Cooperative Action under the

Convention

CDM Clean Development Mechanism

COP Conference of the Parties

ENGO environmental non-governmental organization

GEF Global Environment Facility

GHG greenhouse gas

FCPF Forest Carbon Partnership Facility

IISD International Institute for Sustainable Development

IPCC Intergovernmental Panel on Climate Change

LULUCF land use, land-use change and forestry
MRV measurable, reportable and verifiable
NAMA nationally appropriate mitigation actions

REDD reducing emissions from deforestation and forest degradation in developing

countries

SBSTA Subsidiary Body for Scientific and Technological Advice
UNFCCC United Nations Framework Convention on Climate Change

1.0 Introduction

The Copenhagen Climate Change Conference in December 2009 has been referred to as both a success and failure, although almost everyone agrees that the result was far less than most had hoped for. The substantial outcome was the Copenhagen Accord. The accord does not impose binding emission targets or set a deadline for forming an internationally binding treaty, but progress was made in many areas, with the main points of the accord including:

- The objective of keeping maximum global temperature increase to below 2 degrees Celsius.
- A commitment to list developed country emission reduction targets and developing country mitigation actions for 2020; countries were to submit targets and actions to the secretariat of the United Nations Framework Convention on Climate Change (UNFCCC) by January 31, 2010.
- Explicit acknowledgement to act on reducing emissions from deforestation and forest degradation (REDD), including the immediate establishment of a **REDD-plus** mechanism.
- Scaled-up, new and additional, predictable and adequate funding for developing countries to
 enable action on mitigation, including substantial finance for REDD-plus, adaptation,
 technology development and transfer and capacity building.
- A developed country commitment to a goal of jointly mobilizing US\$100 billion annually by 2020 from both public and private sources, and a collective commitment to provide "new and additional, predictable and adequate funding" amounting to US\$30 billion for the period 2010–12 with a balanced allocation between adaptation and mitigation.
- Action and cooperation on adaptation, particularly in least developed countries, small island developing states and Africa.
- Establishment of a technology mechanism to accelerate technology development and transfer. (UNFCCC, 2009a)

REDD-plus, along with agriculture, were areas that made the greatest progress within the formal negotiations of the UNFCCC. The Subsidiary Body for Scientific and Technological Advice (SBSTA) reached a decision on REDD-plus that provides some key methodological guidance for REDD-plus activities. The Ad-Hoc Working Group on Long-Term Cooperation Action under the Convention (AWG-LCA) produced a draft decision on REDD-plus. Moreover, Norway, Japan, the

United States, Britain, France and Australia together pledged US\$3.5 billion in short-term financing to get REDD-plus off the ground.

The issue was also touched on by the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP) with regard to expanding the eligibility of land use, land-use actions and forestry (LULUCF) activities under the Clean Development Mechanism (CDM). Other discussions in the land-use sector were the negotiations on "Cooperative sectoral approaches and sector-specific actions in agriculture."

No decisions were made on the text developed by the AWG-LCA and AWG-KP, and this text remains on the negotiating table. The next opportunity for a decision will be at the sixteenth Conference of the Parties (COP 16) in Mexico City in November/December 2010. Countries agreed to continue the work of the two AWGs, and countries made submissions to the UNFCCC in February 2010 on the work programme of the two working groups. Meetings of the AWGs are expected to resume before or at the same time as the UNFCCC Subsidiary Body meetings scheduled for June 2010 in Bonn. These meetings will be preceded by a preparatory meeting to be held April 9–11 in Bonn, Germany.

Many developing countries stand to benefit from a REDD-plus mechanism, and it will be important to get the right framework in place as countries seek to implement the Copenhagen Accord and agree on the directions of REDD-plus under the AWG-LCA. A careful balancing of interests will be required to develop a mechanism that provides effective incentives for REDD at the international level, without jeopardizing the integrity of emission reductions or resulting in adverse impacts for sustainable development in host countries. Many outstanding, and sometimes contentious, issues remain in the REDD negotiations that will need to be resolved. Many of these issues—such as financing—are related to other areas of the negotiations and will need to be considered in the broader framework.

This IISD-ASB paper reflects the state of the REDD negotiations at the end of the Copenhagen Climate Change Conference. The paper examines some of the main areas for moving ahead with REDD implementation, including principles and actions; measurement, reporting and verification (MRV); institutional arrangements; means of implementation and financing. Each section provides an overview of the issue and questions to be considered by negotiators over the upcoming year. The paper builds on earlier analysis undertaken by IISD and ASB-ICRAF, *The REDD Negotiations: Moving into Copenhagen.*¹

¹ Available at: http://www.iisd.org/climate/land-use/redd.asp.

2.0 COP 15 Outcomes on REDD

This section provides a brief overview of the outcomes on REDD under the different negotiating tracks. A short discussion on the outcomes on agriculture is also included because of the strong linkages between the two sectors.

2.1 Copenhagen Accord

The Copenhagen Accord (UNFCCC, 2009a) refers to REDD-plus in two places:

- Paragraph 6 "We recognize the crucial role of reducing emission from deforestation and
 forest degradation and the need to enhance removals of greenhouse gas emission by forests
 and agree on the need to provide positive incentives to such actions through the immediate
 establishment of a mechanism including REDD-plus, to enable the mobilization of financial
 resources from developed countries."
- Paragraph 10 "We decide that the Copenhagen Green Climate Fund shall be established as
 an operating entity of the financial mechanism of the Convention to support projects,
 programme, policies and other activities in developing countries related to mitigation
 including REDD-plus, adaptation, capacity-building, technology development and transfer."

Many feel that the Copenhagen Accord is a political endorsement for further action on REDD-plus under existing frameworks, and a mandate to continue supporting REDD-plus readiness and implementing pilot projects that would generate information for the continued negotiations on REDD in 2010.

There are numerous questions going forward on the Copenhagen Accord. Two months after the Accord came into existence, the extent to which it has garnered international political support is uncertain and its future role remains difficult to pinpoint. The Accord was merely "noted" by the COP, meaning that it has no legally binding status in international law. The UNFCCC established a mechanism for parties to formally associate with the Accord, but it remains to be seen how it will be streamlined into the UNFCCC process. This will have implications for REDD-plus, as Parties that sign on to the Accord agree to establish a REDD-plus mechanism, but there is little clarity about the nature of the mechanism.

Developing countries have expectations of receiving support for REDD-plus actions. Eighteen non-Annex I countries submitted nationally appropriate mitigation actions (NAMAs) in the forestry sector to the UNFCCC, consistent with the terms of the Copenhagen Accord. Four of these submissions explicitly mentioned REDD activities, and 12 included land-based activities in the

agricultural sector (see Annex 1). Note that many of the developing country submissions did not include a detailed list of actions requiring support.

2.2 AWG-LCA text on REDD

The package developed by the AWG-LCA includes a draft text on REDD-plus, entitled "Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries." Further references to REDD-plus can be found in the draft AWG-LCA texts on NAMAs by developing country parties and on financial resources and investment.

As noted, the draft decision on REDD-plus developed by the AWG-LCA was not adopted at COP 15. While considerable progress had been made on a number of issues, the decision to extend the mandate means that everything under the AWG-LCA is still under discussion and the text may change again. In the AWG-LCA negotiations, "nothing is agreed until everything is agreed" (UNFCCC, 2010a), meaning that agreement on the REDD-plus text is subject to Parties agreeing on all sections of the AWG-LCA text and the creation of a legally binding agreement. This will be no easy task given the lack of consensus in such areas as targets and market mechanisms.

The current four-page draft text, which was presented by the REDD-plus contact group to the high-level COP session, reveals widespread agreement on many once-contentious issues. While the text as a whole is still open to future negotiation, parties moved toward consensus on several areas.

Progress was made on paragraph 1, principles. Outstanding questions remain around the link between REDD-plus and NAMAs, and the voluntary nature of REDD-plus actions. As well, the lack of definition around "sustainable management of forests" is cause for concern among some environmental non-governmental organizations (ENGOs) (see section 3.2).

The social and environmental safeguards (paragraph 2) are now part of the operational text, not the preamble. Many countries thought that the safeguards were weakened by being placed in the preamble. The safeguards text includes reference to the United Nations Declaration on the Rights of Indigenous Peoples, and reference to biological diversity and ecosystem services and precluding the conversion of natural forests.

The draft decision requests SBSTA to play an increasingly significant role in continuing the work of establishing a REDD-plus mechanism, requesting that it:

- Undertake a work programme to identify LULUCF activities in developing countries, in particular those that are linked to the drivers of deforestation and forest degradation, to identify the associated methodological issues to estimate emissions and removals resulting from these activities, and to assess their potential contribution to the mitigation of climate change (paragraph 4).
- Develop modalities for MRVing anthropogenic forest-related emissions by sources and removals by sinks, forest carbon stocks, forest carbon stocks and forest area changes (paragraph 9).
- Develop modalities for MRVing the support provided by developed country parties to support the implementation of safeguards and mitigation actions (paragraph 10).
- Develop modalities for the promotion and implementation of the development of national strategies or action plans, policies and measures and capacity building, the implementation of national policies and measures, and national strategies or action plans and, as appropriate, subnational strategies, that could involve further capacity building, technology transfer and results-based demonstration activities (paragraph 13).

A fifth request for SBSTA that was included in the informal text not put before the COP was to develop modalities for a national forest reference emission level or forest reference level (or, if appropriate, at the subnational level); and for a national forest monitoring system for identified mitigation actions (and safeguards) in the forest sector (or, if appropriate, at the subnational level). Negotiators handed a draft text to ministers on the Thursday of week two, but continued negotiations on Friday and Saturday, resulting in a document that has no formal standing, but indicates where further progress had been made.²

The text in paragraph 7 indicates that REDD-plus will occur in three phases: 1) development of national strategies or action plans, policies and measures and capacity building; 2) implementation of national policies and measures, and national strategies or actions plans and, as appropriate, subnational strategies, that could involve further capacity building, technology transfer and results-based demonstration activities; and 3) results-based actions. The text further explains that, depending on national circumstances, capacities and level of support received, developing country parties have the autonomy to decide how these activities will be implemented (such as whether

_

² The UNFCCC secretariat has prepared a compilation of the texts as considered and modified by drafting groups of the contact group on long-term cooperative action established by the COP. This contact group did not conclude its work or report back to a plenary meeting of the COP, as such the texts in this document have no formal standing but are reproduced to be available to Parties. This report can be accessed at: http://unfccc.int/resource/docs/2010/cop16/eng/02.pdf.

subnational activities will receive tradable credits). This is consistent with the principles outlined in the first paragraph, which state that the implementation of activities should be country-driven and respect national sovereignty. In other words, developing countries have the authority to allow an interim subnational approach until a robust national system is in place.

Good progress was made in Copenhagen, but outstanding issues remain that will be taken up over 2010, with COP 16 in Cancun, Mexico being the first opportunity for a decision on the draft REDD text. Unresolved areas include the global targets and time frame for halting deforestation (which had been suggested as reducing deforestation by 50 per cent by 2020 and halting deforestation by 2030), institutional arrangements (such as forest emission inventory, reference levels and a national or subnational registry), MRV systems, benefit distribution mechanisms and financing (grant and/or market-based sources). Some of these issues require decisions at the political level (e.g., global targets and time frame). As such, it will be important to identify areas where negotiators can make progress over 2010 and focus efforts on these areas.

The connection between the work of the AWG-LCA and the work to be undertaken to implement the Copenhagen Accord is not clear. Some have suggested that the LCA text on REDD should be the basis for further negotiations for an international REDD-plus mechanism in line with the Copenhagen Accord.

2.3 SBSTA decision on REDD

COP 15 adopted a decision recommended by the SBSTA on "Methodological guidance for activities relating to reducing emissions from deforestation and forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries" (UNFCCC, 2009b). This decision builds on an earlier decision at COP 13 that had requested SBSTA undertake a programme of work on methodological issues related to REDD-plus.

In advancing methodological issues, the decision established the Intergovernmental Panel on Climate Change (IPCC) guidelines as the basis for estimating emissions from land-use activities, removals by sinks, forest carbon stocks and forest area changes. The draft decision also approved subnational forest monitoring systems as long as they were part of a national system (paragraph 1.d) and promoted historically adjusted forest reference emissions levels and/or forest reference levels (paragraph 7). The decision is similar to the AWG-LCA in recognizing the need to engage indigenous peoples and local communities and develop guidance for their involvement in monitoring and reporting (paragraph 3). The decision encourages capacity building (paragraphs 4, 5 and 6) and urges relevant organizations and stakeholders to coordinate efforts (paragraph 9).

2.4 Relevant developments on LULUCF under KP

The rules for LULUCF—an emission sector under the Kyoto Protocol—are being renegotiated for the post-2012 period under the AWG-KP. The discussions on the LULUCF rules are followed closely by many REDD negotiators because the outcomes of the LULUCF talks under the AWG-KP could influence the negotiations on a REDD framework, particularly with regard to accounting for emissions and removals. LULUCF negotiators are attempting to develop clear options for more consistent accounting for a second commitment period. Many developing forest countries and certain ENGOs are very concerned that the perverse effects of rules and loopholes in LULUCF accounting might be carried over to REDD. These countries want a REDD mechanism to promote preservation of natural forests, and preference for natural forests over plantations. Outcomes of negotiations on LULUCF rules for developed countries could influence expectations for REDD rules in developing countries. The two issues are becoming increasingly linked.

Also linked to the REDD discussions are AWG-KP discussions on the CDM (UNFCCC, 2010c). Some developing countries are interested in incentives to encourage actions to reduce greenhouse gas emissions in the land-use sector, including expanding the CDM to include soil carbon management in agriculture; restoration of wetlands; sustainable forest management and other sustainable land management activities; and re-vegetation, forest management, cropland management and grazing-land management. REDD is also included in AWG-KP text, and negotiators have noted the need to account for the REDD discussions under the AWG-LCA. A number of African nations (including the Republics of the Gambia, Ghana, Lesotho, Mozambique, Niger, Senegal, Swaziland, Uganda, Zambia and Zimbabwe) have flagged the importance of soil carbon sequestration and suggested that one way forward is the expansion of the CDM to include agricultural land uses.

2.5 Agriculture

Agriculture was not reflected directly in the Copenhagen Accord, but was one of the areas that made greatest progress within the formal UNFCCC negotiations over 2009. Most countries agree that agriculture is important, and agriculture is not a controversial issue in the negotiations; the question has been how best to include it in a new international climate change agreement. For much of 2009, agriculture did not have a clear "home" in the negotiating text and many believed a placeholder would be defined at a later date. The development of the negotiating text on agriculture under the AWG-LCA and coming close to agreement was a major step forward in 2009.

Much of the progress on the mitigation of greenhouse gases in the agricultural sector was made in the AWG-LCA mitigation contact group discussing cooperative sectoral approaches and sectorspecific actions. The discussions evolved over the course of the 2009 negotiations to focus specifically on agriculture, producing the COP 15 draft decision "Cooperative sectoral approaches and sector-specific actions in agriculture" (UNFCCC, 2010a). As no decisions were made at COP 15 on the text developed by the AWG-LCA, the agriculture text remains on the negotiating table, with no opportunity for decision until COP 16 in Cancun in December 2010.

Like all the AWG-LCA text, all of the negotiating text on agriculture remains bracketed, or undecided, and open to future negotiation. The main points of agreement in the text are:

- Recognition of the relationship between agriculture and food security, and the link between adaptation and mitigation;
- A decision that parties promote and cooperate in research, development and transfer of technologies for the mitigation of agricultural greenhouse gas emissions; and
- A request for the SBSTA to establish a programme of work on agriculture.

The critical sticking points at the end of Copenhagen were:

- Whether countries "should" or "shall" promote and cooperate in research, development and transfer of technologies for the mitigation of agricultural greenhouse gas emissions. The choice of terminology will carry a legal meaning, and will need to be agreed upon by parties.
- Language on trade included by Argentina that notes that actions in the agriculture sector should "not constitute a means of or unjustifiable discrimination or a disguised restriction on international trade." Venezuela was concerned about trade and livelihoods.

Some countries are exploring supporting a programme of work on agriculture under the SBSTA 32 "mitigation" agenda item. (The mitigation item has not been on the SBSTA agenda since June 2008 to avoid overlap with mitigation discussion under the AWG-LCA.) There is some precedent for a focus on agriculture: the first in-session workshop on mitigation held at SBSTA 20 focused on the agriculture and energy sectors, looking at the themes of sustainable development, opportunities and solutions, and vulnerability and risk as they relate to mitigation of climate change. Agriculture was covered in some depth due in large part to the important role of agriculture as a sustainable development concern in developing countries. Including agriculture as a sub-item would allow countries to begin the necessary work on agriculture in June 2010, without waiting for a COP 16 decision, and would ensure that agriculture is on the COP agenda. Waiting for COP 16 could be risky: a sectoral approach on agriculture would be part of a package/overall agreement considered at COP 16, and there is no guarantee that a decision will be reached on an international post-2012 agreement.

An important announcement in Copenhagen was the Global Research Alliance on Agricultural Greenhouse Gases. This initiative is completely outside the UNFCCC, but will help to achieve objectives of the convention (e.g., greenhouse gas accounting, targets). The alliance, which brings together over 20 countries, will initially be focused on information sharing, and over time will undertake collaborative projects.³ Potential research areas include livestock emissions management, carbon sequestration in agricultural landscapes, MRV of soil carbon, arable cropping systems and rice cropping systems. The alliance was spearheaded by New Zealand, and the virtual research network will be patterned on the country's Livestock Emissions and Abatement Research Network.

³ The group includes Australia, Canada, Columbia, Chile, Denmark, France, Germany, Ghana, India, Ireland, Japan, Malaysia, Netherlands, New Zealand, Spain, Sweden, Switzerland, United Kingdom, United States, Uruguay and Vietnam.

3.0 Key Areas for Moving Ahead with REDD Implementation

3.1 Scope and scale

The draft AWG-LCA text had determined that REDD could include the following mitigation actions:

- Reducing emissions from deforestation
- Reducing emissions from forest degradation
- Conservation of forest carbon stocks
- Sustainable management of forest
- Enhancement of forest carbon stocks

The scope of REDD largely refers to what land use/land cover type will be eligible for REDD-plus payments. The main text relating to eligibility of activities in REDD-plus (including recent informal draft texts from Copenhagen) has remained consistent with the Bali decision on REDD-plus through COP 14 and 15:

policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries. (UNFCCC, 2007, Decision 2/CP.13, paragraph 1(b)iii)

This implies that the current scope corresponds to what is defined as "REDD-plus" in the current UNFCCC jargon. REDD-plus would include reducing emissions from (gross) deforestation (changes from "forest" to "non-forest" land cover types are included); forest degradation (shifts to lower carbon stock densities within forest); and restocking within and towards forests.

However, eligibility would depend on what is defined as a forest, as well as interpretation of the meanings of sustainable management of forests and enhancement of carbon stocks. The current definition of forest under the UNFCCC, with its combination of biophysical and institutional aspects of temporarily unstocked forest, has been problematic in the application of afforestation and reforestation rules under the CDM. The forest definition is equally challenging for REDD-plus, with the implicit assumption that "forest institutions" are to play a dominant role. A purely tree-cover based definition includes many tree and tree crop plantations and agroforestry systems (Van

Noordwijk & Minang, 2009). A much more stringent natural forest definition that is more relevant for biodiversity conservation misses out on a lot of emissions and emission reduction potential (Sasaki & Putz, 2009).

Besides the forest definition question, a number of issues challenge the scope of REDD-plus as currently defined. These include:

- 1. The extent of drivers of deforestation; and
- Consideration and interpretation of REDD-plus within the context of the UNFCCC AWG-LCA text.

3.1.1 Drivers of deforestation

A complex set of direct and indirect factors interact to drive tropical deforestation. Geist and Lambin (2002) found that the most prominent proximate (direct) drivers are agricultural expansion, wood extraction and infrastructure extension, which themselves are driven by underlying economic factors, institutions, national policies and remote influences. It is obvious that for REDD to be effective in reducing emissions from deforestation, it must adequately address the drivers of deforestation.

The different land uses that are included and excluded under different framings of REDD are deeply interlinked. Agricultural expansion is the leading cause of land-use change associated with deforestation in the tropics. Consequently, a landscape under a REDD-plus deal may well be influenced by activities in landscapes that fall outside of that particular REDD framework. Put differently, a REDD deal may reduce deforestation in one landscape, only to push the deforesting activities into a neighbouring landscape not included in the REDD framework.

These drivers of deforestation create linkages between REDD-plus and other sectors such as agriculture, environment and mining. These linkages vary with local conditions in different countries meaning that additional policy actions in other sectors may be needed in order to achieve REDD-plus. The scope of REDD-plus thus expands beyond the options and eligible actions currently referred to in the draft text.

-

⁴ "Agricultural expansion is, by far, the leading land-use change associated with nearly all deforestation cases (96%). It includes, with more or less equal frequencies, forest conversion for permanent cropping, cattle ranching, shifting cultivation, and colonization agriculture" (Geist & Lambin, 2002, p. 145).

3.1.2 REDD-plus and other relevant UNFCCC texts

The implementation of REDD-plus will also be affected by other issues negotiated under the AWG-LCA, such as NAMAs or other LULUCF actions. A key question in this regard is whether or not REDD should be part of NAMAs. This could potentially eliminate the need for specific REDD-plus criteria to determine the eligibility of forest-related activities; REDD under NAMAs could also allow for full accounting of all carbon stocks and changes in a landscape. Both could have substantial impacts on the eligibility of activities as well as the integrity of emissions reductions achieved. The text on MRV, for instance, encourages the use of the IPCC Good Practice Guidance Report that also emphasizes landscape accounting—including agriculture, forestry and other land uses. If this is eventually adopted by most countries, then the definition problem would be resolved. It would also reduce the need to develop a patchwork of additional rules and definitions to deal with various accounting problems.

Within the framework of NAMAs, there is also the challenging question of how REDD-plus discussions will fit at the local level. In other words, how can the national reporting dimensions be aligned with local level actions? The main question would be how to plan and report the national REDD target at a local level (for example at the provincial level) and across various sectors. Would there be negotiations at these levels to enable proper planning and targeting? Would aggregating from local to national be a simple addition?

Further references in existing REDD texts to adherence to other related conventions raise even more questions about the scope of REDD. The informal REDD text from Copenhagen reiterates the following aspects outlined in the Bali REDD decision:

Demonstration activities should be consistent with sustainable forest management and consider the relevant provisions of the United Nations Forum on Forests, United Nations Convention to Combat Desertification and the Convention on Biological Diversity. (UNFCCC, 2008)

In conclusion, details of the scope and scale of REDD-plus are therefore dependent on a set of key issues such as the definition of forest, the set of rules being defined for accounting which compels considerations beyond forests, considerations for drivers of deforestation and the emergence of NAMAs as a strong post-2012 mechanism in Copenhagen. Careful consideration should be given to these issues in the negotiations of modalities and procedures for REDD-plus in the next few years.

Key questions/issues for the way forward in the negotiations

- What is the operational definition of a forest, and how do we define "sustainable management of forests" and "enhancement of carbon stocks"?
- How do we ensure a multisectoral approach that adequately addresses the drivers of deforestation?
- If REDD forms part of NAMAs, how do we reconcile national reporting with local-level actions?

3.2 REDD safeguards

The draft AWG-LCA text notes that the following safeguards should be promoted and supported:

- That actions complement or are consistent with the objectives of national forest programmes and relevant international conventions and agreements
- Transparent and effective national forest governance structures are needed, taking into account national legislation and sovereignty
- Respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples
- Full and effective participation of relevant stakeholders, including in particular indigenous peoples and local communities in actions referred to in paragraphs 3 and 5 below
- Actions that are consistent with the conservation of natural forests and biological diversity, ensuring that actions referred to in paragraph 3 below are not used for the conversion of natural forests, but are instead used to incentivize the protection and conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits
- Actions to address the risks of reversals
- Actions to reduce displacement of emissions

Protection of the rights of indigenous peoples and local communities—one of the safeguard principles in the negotiating text—has been a contentious issue in the negotiations. These two groups are of particular interest in the REDD discussion because of linkages to their rights, livelihoods and well-being. For example, the availability of payments for carbon services could lead

to conflicts between local communities and other actors involved in carbon trade, in particular if tenure rights are not clear. Property titles for local communities must be secured in order to ensure that they can benefit from REDD-plus.

Countries will need to ensure stakeholder engagement in REDD projects and processes. This will require consideration of consultation processes to engage stakeholders in planning and delivering REDD projects and programmes. Ensuring adequate involvement of local communities can enhance the likelihood of REDD success.

A number of key issues for the way forward can be identified in relation to safeguards. These include:

- Global standards versus national circumstances;
- The CDM experience on national rules for sustainable development; and
- Policy reforms.

3.2.1 Global standards versus national circumstances

Given the wide differences between the historical and economic drivers of deforestation, national and sectoral land-use policies and regulations, and climate profiles that constitute national circumstances, there are ongoing discussions as to whether to leave the safeguards for international regulations or cede to national level, as was the case with the CDM. Some argue for general principles at the global level and then more specific criteria and indicators at the country level. One specific example of this is the current AWG-LCA and SBSTA text that calls for country guidelines on the involvement in of local people in MRV:

Full and effective participation of relevant stakeholders, including in particular indigenous peoples and local communities in actions referred to in paragraphs 3 [actions] and 5 [strategies, forest reference emission level and/or forest reference level, monitoring and reporting]. (UNFCCC, 2010b)

Encourages, as appropriate, the development of guidance for effective engagement of indigenous peoples and local communities in monitoring and reporting. (UNFCCC, 2009b)

Every country needs to establish a clear understanding of where they are as far as potential safeguards are concerned. There are opportunities to do so within the REDD readiness process. However, countries that do not have a REDD readiness programme can initiate their own process

to improve understanding. An example of such a process is the Indonesia Forest Carbon Alliance process in Indonesia.

Box 1: The Indonesia Forest Carbon Alliance (IFCA) experience

In what could be referred to as the first REDD Readiness Mechanism, the Government of Indonesia began a REDD policy development process in July 2007. The aim was to move into site-based testing following developments after COP 13 in Bali. With funding and technical support from the World Bank and the governments of Australia, Germany and Britain, the Ministry of Forestry's Research and Development Agency put together a consultation and study process for the IFCA. This involved a wide range of stakeholders from civil society, government, academia and international institutions.

The IFCA process consisted mainly of a series of studies and public consultations. Experts were identified and invited to plan and implement eight separate studies related to REDD methodology, financing and implementation. The process aimed to determine data availability on carbon stocks and land-use change, priorities in the areas of deforestation and degradation, potential of current policy and legal frameworks and potential mechanisms for carbon markets. Two national workshops were held in August and October 2007 and regional consultations in Papua and Aceh respectively. Prior to each workshop, ministry experts held a writing retreat to review the findings of each of the studies. This kind of early action has clearly contributed to Indonesia's lead role in REDD-plus demonstration initiatives today. Other countries should encourage such proactive results.

3.2.2 The CDM experience on national rules for sustainable development

Similar to the CDM, countries may be required to develop procedures and criteria for validating projects. Article 12 of the Kyoto Protocol stipulates that CDM projects must contribute to sustainable development in host countries. Host countries are responsible for defining sustainable development criteria and ensuring that projects adhere to these criteria as a condition for CDM project registration. Therefore, countries have to define a procedure for project approval. Most countries developed simple checklists often consisting of social, environmental and economic benefits. At times, the procedure is subjective, indicating there is room to learn from more objective tools such as the South-South Matrix, Gold Standard and Climate, Community and Biodiversity Alliance standard that allow for more objective evaluations. The lack of a common standard or benchmark for sustainable development criteria has led to an inadequate consideration of sustainable development in CDM projects.

3.2.3 Policy reforms

Successfully implementing safeguards will require substantial changes in policy in several countries. For example, ground rules and procedures for consultation and/or prior and informed consent on REDD-plus need to be set. Rights to carbon revenues need to be clarified in many cases. These and other critical policy issues need specific attention in the coming years in order to make the REDD-plus framework operational on the ground.

Key questions/issues for the way forward in the negotiations

- What is the current state of access and rights to natural resources for key stakeholders?
- Which social, environmental and economic standards should be met to ensure that local community rights and environmental services are sustained?
- Which changes need to be made to national or local policies to ensure or enhance rights?

3.3 Monitoring, reporting and verification

Estimates of reductions or increases of emissions should be results-based, demonstrable, transparent, verifiable and estimated consistently over time. This requires setting up national systems for specifying data, data collection, analysis and storage for purposes of MRV of greenhouse emission reductions and sinks. It also involves establishing baselines and parameters for assessing additionality. Recent UNFCCC (2009b) texts on MRV include:

- Identification of drivers of deforestation and forest degradation resulting in emissions and also the means to address these;
- Identification of activities within the country that result in reduced emissions, increased removals and stabilization of forest carbon stocks;
- Use of the most recent IPCC guidance and guidelines, as adopted or encouraged by the Conference of the Parties, as appropriate, as a basis for estimating anthropogenic forestrelated greenhouse gas emissions by sources and removals by sinks, forest carbon stocks and forest area changes;
- Establishing, according to national circumstances and capabilities, and taking note of, if appropriate, the guidance on consistent representation of land in the IPCC Good Practice Guidance for LULUCF, robust and transparent national forest monitoring systems and, if appropriate, subnational systems as part of national monitoring systems that:

- Use a combination of remote sensing and ground-based forest carbon inventory approaches for estimating, as appropriate, anthropogenic forestrelated greenhouse gas emissions by sources and removals by sinks, forest carbon stocks and forest area changes;
- Provide estimates that are transparent, consistent, as far as possible accurate, and that reduce uncertainties, taking into account national capabilities and capacities;
- Are transparent and their results are available and suitable for review as agreed by the Conference of the Parties.

3.3.1 The IPCC Good Practice Guidance

Though informal, the introduction of IPCC Good Practice Guidance reporting as part of the formal process of REDD in the current texts could bring about a very dynamic phase of REDD development (IPCC, 2003). The introduction of Agriculture, Forestry and Other Land Use (AFOLU) accounting implies accounting for all carbon stock changes in the landscape. It calls for two variables to be measured and estimated in order to calculate changes in forest carbon: forest area change and carbon stocks change estimation or emission factors (carbon per hectare). Remote sensing has been the dominant method of determining forest area changes (both deforestation and regrowth), while inventories and other methods are mostly used in the estimation of stock changes or emission factors. The Good Practice Guidance report provides three levels or "tiers" as regards use of data, described in Table 1.

Table 1: IPCC Reporting Tiers

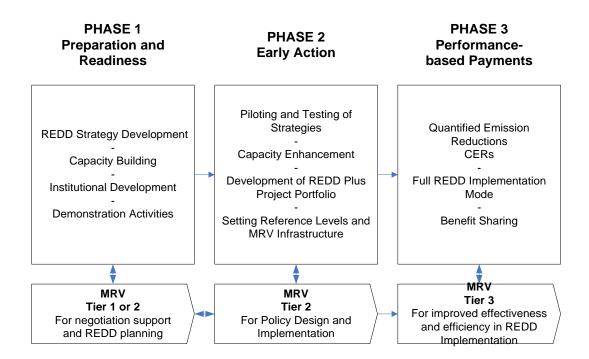
Tier	Description	Comments
Tier 1	Use of default values (e.g. IPCC)	Involves less cost, minimal capacity and
	Use of very coarse activity data (e.g. Global	provides least accurate estimates of
	data sets)	emissions and removals
	Use of simple tools and methods	
Tier 2	Use of country-defined emission factors	Involves moderate costs, moderate capacity
	Use of specialized land-use data (often	and provides improved estimates of
	representative data sets)	emissions and removals, baselines, etc.
	Use of higher resolution spatial data	
	Use of advanced methods and tools (e.g.,	
	remote sensing and field inventories)	
Tier 3	Use of specific and detailed factors	Involves higher costs, high analytical capacity
	Use of fine resolution land use / spatial	and skills, good results for baselines,
	data (often area specific)	emissions and removals
	Use of complex modelling approaches	Also optimizes ability to monetize carbon

Source: IPCC, 2003.

3.3.2 Phased MRV approaches

The various tiers recommended by the IPCC provide for progressive MRV capacity development and processes at the level of REDD implementation. Given the developments in the informal AWG-LCA text, there is clarity on what should be done. Although Tier 1 methods might be less accurate, they require less capacity and less cost, and hence can be developed in least developed countries with the least capacity. Countries can then progress through to Tiers 2 and 3 accordingly. Figure 1 shows progressive development of MRV systems within the REDD Readiness phases. Understanding what is feasible at country level is important for negotiating purposes.

Figure 1: Development of MRV systems within the REDD Readiness phases.



Assessing the capacity of a country to implement these tiers is extremely important and should be a key activity in REDD strategy development. A corresponding phased MRV capacity development framework could emerge from the REDD strategy process.

Key questions/issues for the way forward in the negotiations

- What is the current state of data, data collection, analysis and storage for purposes of MRV of GHG emission reductions?
- What tier of IPCC reporting data is feasible at the country level?
- What phase of MRV capacity development can be achieved, based on existing MRV capacity?

3.4 Institutional arrangements

Implementing REDD-plus in an effective manner will require a set of rules and institutions, and negotiators will need to consider a guiding framework for these institutional arrangements. Discussions will need to consider coordination of efforts, support of actions, MRV performance and resolution of potential conflicts. The current draft negotiating text of the AWG-LCA considers issues related to a guiding framework, including:

- Under the authority and guidance of the COP;
- Promotion of broad country participation;
- Integrating REDD in NAMAs, or REDD as a separate mechanism;
- Be results-based;
- MRV modalities;
- Financing options; and
- Coordination of activities.

The institutions to deliver REDD programmes will build on current programmes and experiences. Current institutions include the UN-REDD Programme, World Bank's Forest Carbon Partnership Facility (FPCF), Brazilian Amazon Fund, Congo Basin Forest Fund, and Guyana REDD+ Investment Fund. An outstanding question is: Should a new REDD-plus institution be formed, or should existing institutions be used, subject to quality standards across REDD-plus initiatives that are set out at the international level?

As discussed in the previous IISD-ICRAF paper, developing countries want an equitable governance regime under COP guidance that provides direct and easy access to funds. Developing countries tend to favour the establishment of new institutions under the UNFCC because of their dissatisfaction with the operations of the World Bank and the Global Environment Facility (GEF). Developed countries tend to favour building on existing institutions to the extent possible (Minang, et al., 2009).

The Informal Working Group on Interim Finance for REDD-plus (IWG-IFR, 2009) has noted the following important functions for any REDD-plus partnership:

- Overall policy coordination on REDD-plus;
- Provision of technical support and best practice sharing;
- Financial functions;
- Registry functions, matching and recording of grant funding, performance payments and emission reductions achieved;
- Certification of eligibility for the phases of REDD-plus;
- Technical advice;
- Certification of reference levels; and
- Verification of results.

The link between NAMAs and REDD-plus is an outstanding issue in the negotiations. The discussion is linked to institutional and financing arrangements. Countries need to determine if a specific body is needed to supervise REDD-plus, or if the broader framework for NAMAs could apply to REDD-plus. Many countries have included REDD-plus actions in their list of NAMAs submitted to the UNFCCC (see Annex 1). Considerable work remains on the institutional and governance modalities for NAMAs; but quick-start funding is expected to flow in 2010, so interim arrangements will likely be developed in the short term.

Another issue requiring continued negotiation is whether REDD-plus will allow for subnational strategies and monitoring frameworks. Most countries agree that accounting will have to take place at the national level to account for displacement of emissions and to implement REDD-plus at the national scale. REDD-net notes that the risk of displacement of emission is significantly higher in a framework that measures individual project emission changes, rather than changes across an entire country. National accounting would minimize the risk of displacement, but would require significant improvements in measurement and monitoring capacities in many developing countries (Bleaney, Peskett & Mwayafu, 2010). Some parties suggest that developing countries could begin with subnational accounting and eventually move to national accounting.

Key questions/issues for the way forward in the negotiations

- Should a new REDD-plus institution be formed, or should existing institutions be used, subject to quality standards across REDD-plus initiatives that are set out at the international level?
- Should REDD-plus be part of NAMAs?
- Should REDD-plus allow for subnational strategies and monitoring frameworks?
- What are capacity-building priorities for developing countries?

3.5 Financing

Financing for REDD-plus is likely to be closely linked to the financing discussions under the AWG-LCA and discussions on and implementation of the Copenhagen Accord. Developed countries that signed onto the Copenhagen Accord committed to raise US\$30 billion in quick-start funding for the period 2010–2012. Decisions on the Copenhagen Green Fund, and which fund is established in the Accord as an operating entity of the financing mechanism of the UNFCCC, will impact REDD-plus financing. The Accord notes that funding will come from public, private, bilateral, multilateral and alternative sources, and leaves open the question of how REDD-plus will be financed in the long term. A high-level panel will be established to study the contribution of "potential sources of revenue, including alternative sources of finance" (UNFCCC, 2009a, p. 3).

The quick-start financing under the Copenhagen Accord should be able to provide incentives for early action on REDD-plus while the details of the full-scale UNFCCC mechanism and incentive system are being negotiated. Grant funding, perhaps supplemented by private voluntary payments, will likely be the quick-start option. There is still disagreement on the use of market-based finance options, which, if agreed to, will require time to be established. As noted, US\$3.5 billion has been committed as initial financing for REDD-plus by Australia, France, Japan, Norway, United Kingdom and the United States.

An outstanding issue for REDD-plus is whether support should be through grant funding, market-based sources, or both. Many countries are leaning toward a combination of funds and market approaches, while some countries want a grant fund approach only. An option under discussion is an initial fund-based approach transitioning into a market-based approach in the later phases. Many feel that carbon markets could potentially form an important part of long-term funding, and could include such options as dedicated proceeds from the auction of emission allowances in a cap-and-trade system, funding towards compliance in the form of carbon credits for national or regional emission trading schemes, and funding from private sources such as voluntary carbon markets.

There is also an option of linking to the three-phase approach set out in the draft text (e.g., grant funds for phase 1; phase 2 being a transition phase with grant funds and demonstration projects accessing funds through the carbon market; and phase 3 being a solely market-based approach). Some parties perceive a disconnect between the phases and financing, in that there needs to be appropriate financing linked to each phase. As well, some parties are concerned that financing will be linked to the third results-based phase, meaning that some countries may not be able to access adequate funding. Other areas needing agreement include MRV provisions—should they take place before phase three?—and eligibility criteria for countries to move from one phase to another.

Ideally, a financing mechanism will leverage and coordinate multiple sources of funding, while responding to developing countries' diverse and dynamically changing funding needs. It is likely that some developing countries will prefer to support, or be able to contribute more easily to supporting REDD-plus, if a variety of financing arrangements are available to them. This would allow public and private sector funding, with the latter likely related to carbon markets.

Key questions/issues for the way forward in the negotiations

- What financing arrangements will encourage the greatest flow of funds?
- Should support for REDD-plus be through grant funding, market-based sources, or both?
- Should the mode of financing be linked to the three-phase approach for implementation?

4.0 The Way Forward on REDD Negotiations and Implementation

The UNFCCC process includes two confirmed meetings of the AWGs in 2010; the first in Bonn, Germany in May/June and the second (COP 16) in Cancun in November/December 2010. These will be preceded by a preparatory meeting to be held in Bonn, April 9–11, 2010.

Other meetings in 2010 could impact on the REDD-plus negotiations. One is a spring meeting in Oslo announced by the Prime Minister of Norway to initiate a climate group on forests consisting of important rain forest nations, such as Brazil, Indonesia, Guyana, Gabon and Papua New Guinea. The new climate group will coordinate and contribute to measures in the most important forest countries, and work to secure that REDD-plus will be central in a new climate agreement. This will be part of Norway's efforts to reach a binding agreement in Mexico (Office of the Prime Minister, 2009).

Another consideration is the activities of the IWG-IFR, whose secretariat is hosted by the Government of Norway. The group is supported by the G20 and a number of other developing countries. Proposals put forward by this group in November 2009 could be taken into consideration at various levels, including at the G8 and G20 meeting in June 2010 in Canada (IWG-IFR, 2009).

Immediate action is needed on REDD-plus to combat climate change. Interim arrangements could be set up in 2010 to facilitate developing country access to quick-start funds that are to be made available under the Copenhagen Accord. Priorities could be arrangements for providing technical and administrative support, arrangements for best practice sharing and arrangements for coordination of efforts. It will also be important to link REDD-plus to the wider UNFCCC debates on LULUCF, the CDM and agriculture.

Outstanding questions in the REDD-plus negotiations that will require attention in 2010 include:

- Global targets and timeframe for halting deforestation;
- The nature of financing (this could be informed by efforts to implement the Copenhagen Accord);
- Scale—national versus subnational implementation and monitoring;
- Assessing drivers of deforestation and defining eligible activities;
- Definition of "forest" and "deforestation";

- The linkages between REDD-plus and NAMAs;
- Involvement of local and indigenous communities and the protection of their rights;
- Institutional arrangements;
- MRV for REDD-plus activities, including for safeguards; and
- MRV for developed country support (this could be informed by efforts to implement the Copenhagen Accord).

The significance of the Copenhagen Accord and its impact on REDD-plus should be revealed over coming months, but there is considerable work that can be started at the national level. All countries need to work to maintain the considerable momentum built up on REDD-plus, ensure that international financial pledges are honoured and ensure transparency in REDD initiatives to encourage sharing of experiences and lessons learned. In developing countries, governments can continue with REDD-readiness activities, working to set up national implementation institutions and governance systems for REDD-plus.

Annex I – NAMAs in the Land-use Sector Submitted to the UNFCCC⁵

Armenia

- Restoration of degraded forests
- Afforestation
- Reducing the volumes of deforestation
- Sustaining soil CO₂ content and ensuring its increase

Benin

 Sustainable management of natural forests and development of plantation forestry to increase carbon sinks

Brazil

- Reduction in Amazon deforestation
- Reduction in "Cerrado" deforestation
- Restoration of grazing land
- No-till farming
- Biological nitrogen fixation

China

 Increase forest coverage by 40 million hectares and forest stock volume by 1.3 billion cubic metres by 2020 (from the 2005 levels)

Republic of the Congo

- Development of REDD-related activities
- Development of silviculture in degraded forests and silviculture activities in rainforests
- Development of a national land-use strategy
- Promotion of sustainable management of forests
- Promotion of silviculture to enhance village, community and private plantations
- Promotion and enhancement of non-timber forest products
- Reforestation of eroded areas
- Promotion of youth employment in the regeneration and sustainable management of forest ecosystems
- Education and awareness raising on forest conservation practices
- Awareness raising of adaptation actions in the agricultural sector
- Promotion of plant species that fix nitrogen

Costa Rica

Forestry

⁵ As of February 18, 2010. Party submissions can be accessed at: http://unfccc.int/home/items/5265.php.

Cote d'Ivoire

- Reorganize and sustainably manage rural and state forests
- Develop and implement a national plan to combat land degradation
- Manage waste in an integrated and sustainable manner
- Develop sustainable farming

Ethiopia

- Enhanced district-level reforestation actions for the increment of vegetation cover of 214,440 square kilometres of degraded lands, lands affected by gullies and slopes, including through the management of community areas closed off to grazing
- 28,736.70 square kilometres of natural high forest area sustainably managed in order to reduce GHG emissions from deforestation and forest degradation
- 4,390.96 square kilometres of deciduous forest land sustainably managed in order to reduce GHG emissions from deforestation and forest degradation
- 60,360 square kilometres of national parks sustainably managed to reduce GHG emissions from deforestation and forest degradation
- 198,175 square kilometres of existing forests that are providing non-timber forest product maintained as buffer area for mitigating desertification
- 52,695 square kilometres of forest in exhaustion or production forests established and sustainably managed for the purpose of sequestrating carbon
- 51,496 square kilometres of wetlands wisely managed and sustainably used
- Application of compost on 80,000 square kilometres of agricultural land of rural local communities for increased carbon retention in the soil
- Implementation of agroforestry practices and systems on 261,840 square kilometres of agricultural land for livelihood improvement and carbon sequestration

Ghana

- Promote sustainable forest management
- Implement REDD++ mechanism
- Implement various forest governance initiatives
- Rehabilitate degraded wetland
- Develop and enforce land-use plans
- Promote spot and zero burning practices
- Promote minimum tillage
- Incentivize use of bio-fuels for mechanized agriculture
- Promote the use of organic fertilizer
- Promote integrated use of plant nutrients
- Promote the cultivation of high-yielding upland rice cultivation
- Promote the recycling of crop residues

Indonesia

- Sustainable peat-land management
- Reduction in date of deforestation and land degradation
- Development of carbon sequestration projects in forestry and agriculture

Jordan

- Control and stop deforestation
- Expand forest areas and tree-covered areas
- Rehabilitation and protection of the green cover and the grazing areas in the Badia region
- Grow nature reserve areas by including new reserves with the existing ones
- Growing perennial forages in the Badia region
- Best management practices in irrigated farming fertilization applications

Madagascar

- Implement widespread reforestation in 22 regions
- Restore the Torotorofotsy wetlands that cover approximately 9,000 hectares including its watersheds
- Improve the management of protected zones through the implementation of a management plan and management of biodiversity activities
- REDD+
 - Develop a REDD+ policy and strategy
 - Strengthen pilot projects that will contribute to the implementation of the national REDD+ strategy
 - Technical capacity building at all levels
 - Develop the institutional and legal framework for REDD+ implementation
 - Improve knowledge of REDD+ of decision makers and the general population using outreach and communication
 - Improve funding mechanisms for REDD+ implementation
- Improve pasture land and forage
- Increase agricultural production through improved seeds
- Increase use of compost and organic fertilizer in agricultural investment zones

Mongolia

- Reduce emissions from deforestation and forest degradation, improve sustainable management of forest and enhance forest carbon stocks in the Mongolian forest sector, including implementation of a REDD project
- Improve forest management, with major mitigation options identified as natural regeneration, plantation forestry, agro-foresty, shelter belts and bioelectricity

Morocco

- Reforest 50,000 hectares per year up to 2012 and one million hectares by 2030, in line with the reforestation master plan, which was adopted in 1994
- Improve forest fire protection through implementation of the master plan to prevent and combat fires, which was adopted in 2003
- Improve the yields of agricultural land

Papua New Guinea

High-level policy objectives include forestry and agriculture as appropriate mitigation actions

Sierra Leone

- Increase conservation efforts in Sierra Leone through: establishing a network of twelve Protected Areas by 2015; sustainable management; and protection of forest reserves and catchment areas in Sierra Leone, including mangroves, coastal and inland wetlands
- Delineation and restoration of vulnerable habitats and ecosystems in the western area of Sierra Leone
- Provide support for a national assessment on forest resources
- Improve forest governance to maintain the proportion of land area covered by forests to at least 3.4 million hectares by 2015, through the development of legislation, regulations and by-laws for environmental protection, including control of deforestation, firewood collection and charcoal production and through capacity building, training and support to law enforcement services and the Ministry of Agriculture (Forestry Department)
- Introducing conservation farming and promoting the use of other sustainable agricultural practices (e.g., agroforestry, etc.)
- Development of an Integrated Natural Resources and Environmental Management programme for Sierra Leone, including sustainable land management programmes, particularly in relation to ecosystems.

Macedonia

- Enabling favourable pre-conditions for greenhouse gas emission reductions in the agriculture and forestry sectors
- Introducing and developing greenhouse gas mitigation technologies in agriculture
- Strengthening local capacity for carbon financing
- Educating experts, farmers and decision-makers on the agricultural mitigation measures and technologies
- Implementing the national strategy in the forestry sector

Togo

- Increase national forest cover from seven percent in 2005 to 30 percent in 2050 through reforestation:
 - creation of greenhouse gas sinks
 - reduction of greenhouse gas emissions
 - improvement of the availability of forest resources

References

Bleaney, A., Peskett, L. and Mwayafu, D. (2010, January). REDD-plus after Copenhagen: what does it mean on the ground? COP 15 briefing.

Geist, H.J. and Lambin, E.F. (2002). Proximate causes and underlying driving forces of tropical deforestation. *BioScience*, 52(2), pp. 143–149.

Informal Working Group on Interim Finance for REDD+ (IWG-IFR). (2009). Report of the Informal Working Group on Interim Finance for REDD+ (IWG-IFR). Discussion document. Retrieved February 2010 from:

http://www.regjeringen.no/upload/MD/Vedlegg/Klima/klima_skogprosjektet/iwg/Report%20of %20the%20Informal%20Working%20Group%20on%20Interim%20Finance%20for%20REDD+%20_IWG%20IFR_Final.pdf.

Intergovernmental Panel on Climate Change. (2003). Chapter 3: LUCF Sector Good Practice Guidance in Good Practice Guidance for Land Use, Land-Use Change and Forestry. Retrieved February 2010 from: http://www.ipcc-nggip.iges.or.jp/public/gpglulucf/gpglulucf_contents.html.

Minang, P.A., Jungcurt, S., Meadu, V. and Murphy, D. (2009). *The REDD Negotiations: Moving into Copenhagen*. Winnipeg: IISD.

Office of the Prime Minister. (2009, December 22). Norway's' Stoltenberg initiates climate group on forests. Press release. Retrieved February 2010 from:

http://www.regjeringen.no/en/dep/smk/press-center/Press-releases/2009/norways-stoltenberg-to-initiate-climate-.html?id=589348.

Sasaki, N. and Putz, F.E. (2009). Critical need for new definitions of 'forest' and 'forest degradation' in global climate change agreements." *Conservation Letters* 1755-263X.

UNFCCC. (2007). Bali Action Plan. Report of the Conference of the Parties on its thirteenth session, held in Bali from 3 to 15 December 2007. Addendum Part Two: Action taken by the Conference of the Parties at its thirteenth session. Decisions adopted by the Conference of the Parties. (FCCC/CP/2007/6/Add.1*). Retrieved Febraury 2010 from: http://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf.

UNFCCC. (2008). Decision 2/CP.13: Reducing emissions from deforestation in developing countries: approaches to stimulate action. Report of the Conference of the Parties on its thirteenth session, held in Bali from 3 to 15 December 2007. Addendum Part Two: Action taken by the Conference of the Parties at its thirteenth session. FCCC/CP/2007/6/Add.1*. Retrieved February 2010 from: http://unfccc.int/resource/docs/2007/cop13/eng/06a01.pdf.

UNFCCC. (2009a). *Copenhagen Accord*. Conference of the Parties, Fifteenth session, Copenhagen, December 7–18, 2009. FCCC/2009/L.9. Retrieved February 2010 from: http://unfccc.int/resource/docs/2009/cop15/eng/l07.pdf.

UNFCCC. (2009b, December 11). Reducing Emissions from Deforestation in Developing Countries: Approaches to stimulate action: Recommendation of the Subsidiary Body for Scientific and Technological Advice. FCCC/SBSTA/2009/L.19/Add.1. Retrieved February 2010 from: http://unfccc.int/resource/docs/2009/sbsta/eng/l19a01.pdf.

UNFCCC. (2010a, February 5). Cooperative sectoral approaches and sector-specific actions in agriculture. Report of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention on its eighth session, held in Copenhagen from 7 to 15 December 2009. (FCCC/AWG/ LCA/2009/17, 5 February). Annex J, p. 43. Retrieved February 2010 from: http://unfccc.int/resource/docs/2009/awglca8/eng/17.pdf.

UNFCCC. (2010b, February 5). Policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries. Report of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention on its eighth session, held in Copenhagen from 7 to 15 December 2009. (FCCC/AWG/LCA/2009/17, 5 February). Annex G, pp. 34-37. Retrieved February 2010 from: http://unfccc.int/resource/docs/2009/awglca8/eng/17.pdf.

UNFCCC. (2010c, January 28). Report of the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol on its tenth session, held in Copenhagen from 7 to 15 December 2009 (FCCC/KP/AWG/2009/17, 28 January). Retrieved February 2010 from: http://unfccc.int/resource/docs/2009/awg10/eng/17.pdf.

Van Noordwijk, M. and Minang, P.A. (2009). If we cannot define it, we cannot save it. *ASB PolicyBrief No. 15*. Nairobi, Kenya: ASB Partnership for the Tropical Forest Margins.