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The Challenge of Urgency

Incentivizing Private Sector Early Action in REDD+

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Executive Summary

REDD+ early action is essential to (i) create incentives to reduce emissions from deforestation, forest degradation and support conservation, sustainable forest management and the enhancement of forest carbon stocks (REDD+) while an international legal framework is still being negotiated; (ii) maximize the early number of emission reductions; and (iii) create a learning tool for a scaled up REDD+ mechanism. Early action can be feasibly implemented at the national or sub-national level if actors have the confidence that investments and risk-taking are shared between the entities and eventually rewarded by an international REDD+ mechanism.

Early action in the context of climate policy generally refers to policy and legislative incentives that aim at mobilizing GHG emission reductions prior to any binding regulation that intends to stimulate action and emission reductions that may be eligible for crediting or recognition under future regulation. Early action incentives can be created on the international or national level; they can target public or private action. The latter is the focus of this paper.

Regarding implementation, private sector sponsored early action would be complementary to public efforts, endorsed by the respective REDD+ nation and occur in conjunction with the development of national REDD+ strategies. On the funding side, developed countries play a key role to mobilize REDD+ early action funding from public and private sources before a domestic or international REDD+ mechanism enters into force.

Legislation considered in the US contains language recognizing early action for REDD+ projects and national efforts. Any crediting of early action under emerging climate legislation will however have to ensure the environmental and market integrity of REDD+ emission reductions. Permanence and leakage will have to be managed and market flooding avoided. Projects developed under today's most credible voluntary standards may meet the eligibility criteria under such legislation which both incentivizes direct purchases of REDD+ credits by private actors under a cap-and-trade system and directs public funding to REDD+ nations for capacity building.

It is up to policy makers to decide on the appropriate incentive structure for early action (see a list of possible strategies in Table 1). But it is certain that "early action" incentives for REDD+ are necessary to lay the foundation for scaled-up REDD+ after 2012. Given the complexity of REDD+ at the national and global level, the world cannot wait until a final REDD+ mechanism is in place to move forward with demonstration and readiness activities.

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Table 1 Strategies to incentivize early action for REDD+ include:

Strategies	Activities
Creating demand for REDD+ emission reductions	*Launching public REDD+ credit procurement programs*
	Linking the acquisition of REDD+ to energy intensive investments
	Acceptance of REDD+ emission reductions for compliance in cap-and-trade regimes
	Recognition of early action in allowance allocation
	Cap-and-trade under binding sectoral commitments in developing countries
Incentivizing investments in REDD+ action	*Tax incentives*
	Low-cost loans or loan guarantees
	Public/Private finance partnerships
Creating enabling environments for investments	*Government action in REDD+ methodology and modalities development*
	Reduction / subsidy of transaction costs
	Support for governance reforms in developing countries
Corporate governance	*Recognize REDD as marketing and corporate social responsibility activity*
	Include REDD+ action in investor disclosures

Introduction

Climate change is one of the defining challenges of our time. Delaying action to address greenhouse gas (GHG) emissions will significantly raise the cost of preventing global temperatures from rising 2°C above preindustrial levels.[1] In the short term, one of the most cost-effective ways to reduce GHG emissions is the reduction of emissions from deforestation and forest degradation (REDD), sustainable forest management, conservation, and enhancement of forest carbon stocks (collectively known as REDD+). While an international REDD+ mechanism is still under discussion, many developing countries started to engage in REDD+ readiness activities and developed countries (US, UK, France, Japan, Australia and Norway) pledged USD3.5 billion to support REDD+ over the next three years at the most recent United Nations climate conference in Copenhagen.

Yet significant structural and institutional reforms — from land tenure to law enforcement capacity — must occur to reduce deforestation effectively, efficiently and equitably in REDD+ countries. These reforms could take years or, in some cases, decades to fully implement. Therefore, starting implementation of projects in parallel to reforms at national level is critical to delivering REDD+ emission reductions as early as possible. Bottom-up learning can also inform top-down reforms through a participatory and sustainable national reform process that will form the domestic basis for international negotiations. Thus, clear and meaningful "early action" on REDD+ is needed to prepare for effective REDD+ implementation at the global scale.[2]

How should this be done? Interim finance, national REDD+ programs, and government recognition of private initiatives and investments are essential to kick-start REDD+ action in developing countries. This will create incentive for REDD+ before an international framework is in place and generate expertise creating and crediting emission reductions at the international, national and local levels. Action has already started: Globally, at least 40 countries are preparing to launch REDD+ activities by defining national REDD+ strategies, holding public consultations, and establishing measuring, reporting and verification (MRV) systems. Industrialized countries also support early action. They support developing countries by financing REDD+ demonstration projects and programs in advance of an international REDD+ mechanism. To ensure that public sector funding continues, and the tentative private sector investments in REDD+ grow, clear political signals and sustained support at the international and on the national level is vital.

This paper identifies a list of options to stimulate early action, summarizes current REDD+ efforts, reviews GHG crediting and accounting standards, and identifies issues for further examination. While public funding and support for REDD+ is essential, recognition of non-state action as early action – in particular investments into REDD+ carbon projects and programs – is the main focus of this paper. This recognition can take various forms: issuance of REDD+ compliance credits, allocation of additional allowances under a cap-and-trade scheme for early emission reductions, or acquisition of emission reductions by governments. In defining early action incentives, governments must however be careful to protect environmental and market integrity.

1 The 2°C goal roughly relates to a global concentration of GHGs of 450ppm. It has been proposed by the IPCCC Forth Assessment Report and is referred to as the overall goal of climate mitigation in the Copenhagen Accord (Draft decision -/CP.15, FCCC/CP/2009/L.7 18 December 2009).

2 See also the Report of the Informal Working Group on Interim Finance for REDD+ (IWG-IF REDD+ Report), October 27, 2009.

1. Background

1.1. Definition and Scope of Early Action

Early action in the context of climate policy generally refers to policy and legislative incentives that aim at mobilizing GHG emission reductions prior to any binding regulation. This stimulates action and emission reductions eligible for crediting or recognition under future regulation. Such incentives are generally created through programs that support emission reductions or legislative measures that grandfather action that will be eligible for crediting under future regulatory schemes. Early action incentives can be created on the international or national level; they can target public or private action.

Examples for early action include the "prompt start" provision in Article 12 (10) of the Kyoto Protocol that authorized the "*certified emission reductions* (CERs) *obtained during the period from the year 2000 up to the beginning of the first commitment period*" to be used in achieving compliance in the first commitment period of the Kyoto Protocol. This provision established that emission reductions generated before the entry into force of the Kyoto Protocol in 2005 were eligible for compliance with the Kyoto targets. The EU Emission Trading Scheme recognized early action by allowing CERs, regardless of which vintage, for compliance in the scheme. Examples for early action in the area of REDD+ include the Informal Working Group on Interim Finance for REDD+, an intergovernmental initiative that analyzed the financial needs for REDD+ and options to deliver such interim finance "*until financial flows can be generated through the UNFCCC, and the contribution that may be required from the public and private sector to implement such interim mechanisms, taking into account currently available financial flows*"[3] in preparation of the Copenhagen session of the UNFCCC Conference of the Parties (COP-15). In the follow-up of COP-15, Norway and France are convening a similar process that establishes and implements a fast start interim REDD+ arrangement. The World Bank's Forest Carbon Partnership Facility (FCPF) and the UN-REDD programme are collaborative international programs that seek preparing countries to participate in a future REDD+ mechanism while supporting REDD+ demonstration projects and stimulating early action on the ground. At the international level, early action support for REDD+ includes:

- Readiness activities in REDD+ countries
- REDD+ demonstration activities
- Financial and other support for REDD+ from developed countries

Most of REDD+ early action is government driven and supported by public funds. Many governments, in particular developed country governments, are however eager to create incentives for private sector early action in REDD+. Recognizing that public funds are limited, they seek to create incentives for private investments into mitigation action in general and in REDD+ in particular.

Two bills presented before the US Congress -- the American Clean Energy and Security Act of 2009 (Waxman-Markey, which passed the US House of Representatives in June of 2009) and the Clean Energy Jobs and American Power Act (Kerry-Boxer) -- refer to recognition of early

[3] Terms of Reference of the Informal Working Group on Interim Finance for REDD+ (IWG-IF REDD+ Report).

action and include such provisions.[4] Both bills make emission reductions from approved State, local or voluntary programs before 2009 eligible for exchange offset with allowances valid under the federal program. Alternatively, these credits may be compensated (also in the form of allowances) with documented early GHG reductions that meet certain criteria.[5] Furthermore, an international climate investment bill co-sponsored by Senators Kerry, Menendez, Cardin, and Kaufman (introduced in the Senate in December 2009) includes an entire REDD+ title with objectives to "*build capacity to reduce deforestation at a national level in developing countries experiencing deforestation, including preparing developing countries to participate in international markets for international offset credits for reduced emissions from deforestation*."[6] The Stabenow offsets bill from November 2009 would require that several project categories (including reforestation, forest management, and the use of harvested wood products) be included on the list of acceptable (domestic) offset projects; and give credits to "early actors"—offset projects initiated as far back as 2001—so those who began to sequester carbon on their land before the development of a climate bill could still benefit from its incentives.[7]

There is also state-level precedence for early action crediting from (domestic) REDD+ projects with the California Climate Action Registry (CCAR). CCAR was officially chartered by the State of California (2001) to document early action on the part of California companies in reducing GHG emissions, in order for those early actions to receive credit in any future climate legislation or regulations. Specifically, CCAR developed forest conservation protocols both at the project and the entity/regional level for early action crediting, and twelve projects have been successfully credited with early action Climate Reserve Tonnes (CRTs) to date.[8] These CRTs, which come from California and US domestic forest conservation and management, are considered the leading candidates for early action credit in a future US federal cap and trade system as established by the Waxman-Markey bill and the Stabenow offsets proposal, and as a result tend to attracted relatively high prices and levels of interest from investors.

Generating demand for GHG emission reduction credits from the forestry sector is one of the most effective ways to involve non-state actors in REDD+. Currently, the primary barrier for REDD+ investments is the lack of clear policy assurances that credits generated by early action in REDD+ (and other activities) can be registered to meet future GHG emission reduction obligations (internationally or nationally). A related barrier is the lack of consistent guidance on what specific eligibility criteria would apply to early action REDD+. If structured appropriately, early action incentives can leverage national and foreign investment in REDD+ action in the form of projects or programs and empower local communities to take on REDD+ planning and activities. The challenge for today is creating

[4] American Clean Energy and Security Act (ACESA or Waxman-Markey) H.R.2454 (2009), and Clean Energy Jobs and American Power Act (CEJAPA or Kerry-Boxer),S. 1733 (2009), available at http://thomas.loc.gov/cgi-bin/bdquery/D?d111:3:./temp/~bdytP3::|/bss/111search.html| and http://thomas.loc.gov/cgi-bin/thomas, respectively. The ACESA was passed in the House of Representatives in June 2009. The CEJAPA was introduced in the Senate in September 2009 and passed by the Senate Environment and Public Works Committee on November 5, 2009.

5 Ibid, CEJAPA §782 and ACESA §795 .

6 "The International Climate Change Investment Act of 2009" released by Senate Foreign Relations Committee Chairman on December 3, 2009, available at http://www.interaction.org/sites/default/files/SFRC_Climate_Bill.pdf.

7 http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111_cong_bills&docid=f:s2729is.txt.pdf

8 CAR project registry hosted by APX at https://thereserve1.apx.com/

the right policy structures and signals – and thus financial incentives – to foster early action on a meaningful scale.

1.2. Motivation of Early Action

The motivation of investors or funders of REDD+ differs between the public and private sector, as well as among developed and developing countries. Generally, the private sector is interested in investing in project-level activities yielding financial returns linked to emissions reductions or achieving regulatory compliance. The public sector focuses on activities that generate economic, environmental and social benefits, with financial returns at least a subordinated consideration.

For private sector, REDD+ serves corporate social responsibility or brand-image purposes, meets voluntary carbon neutrality commitments, potentially supplies pre-compliance credits, and provides investors with the potential to monetize the spread between primary project investment and the sale of REDD+ credits at a later stage. At the local (project) level, well designed early action projects support institutional strengthening of forest governance systems and establishment of local level MRV infrastructure. At the national level, positive spill-over effects in the legal field (entitlement of land use rights, carbon ownership rights) are seen as a welcome side effect of REDD+ action. However, the current activities remain isolated interventions and do not yet form comprehensive national strategies for forest protection and enhancement.

Developing countries have shown great interest in participating in REDD+ early action; countries have announced unilateral emission reduction commitments (Brazil, Indonesia) and are engaging in REDD+ readiness activities. Motivations range from domestic climate change commitments that support sustainable land management to the promise of REDD+ funding. International REDD+ negotiations have, however, shown that developing countries are not ready to hand over the control of their forest resources to the market. Countries are keen to retain their sovereign right to manage forest resources at national level, with private sector investments integrated but authorized by host countries.[9]

Developed countries see REDD+ as a means to stimulate emission reductions in developing countries while promoting environmental and social co-benefits (such as forest and biodiversity conservation, rural development). REDD+ also offers a potential supply of cost-effective emission reductions from developing countries. Credits (or recognized efforts) from REDD+ do not raise competitiveness concerns, as energy or industrial-sector offsets do, and are supported by governments as a way of containing costs in domestic cap-and-trade systems. For environmental and conservation NGOs, REDD+ opens a new source of finance for forest conservation.[10]

9 UNFCCC AWG-LCA Subgroup on paragraph 1(b) (iii) of the Bali Action Plan, Non-paper No. 39, 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, Resumed seventh session Barcelona, 2.6 November 2009 General principles, non bracketed text.

10 Opposition to REDD+ market mechanisms comes from a number of countries (e.g. the ALBA group under the UNFCCC) as well as large and influential NGOs such as Greenpeace and Friends of the Earth, as well as from more specialized climate NGOs and coalitions such as Rising Tide North America, Carbon Trade Watch, the Camp for Climate Action, the Mobilization for Climate Justice West and indigenous peoples organizations. See:
http://www.greenpeace.org/international/campaigns/climate-change/forests_for_climate;
http://www.foei.org/en/resources/publications/climate-justice-and-energy/2008/redd-myths;

2. Conditions for Early Action

Today, REDD+ action are funded primarily by governments and philanthropic sources. However, the private sector has (cautiously) started engaging in REDD+ projects. These investments are still small and scaling up pre-compliance investments. That will require an increasingly stable investment climate. Conditions and expectations of private investors and developing countries engaging in REDD+ are summarized in Table 2. Investor expectations relate to risk, and the probability of return on investment. This includes potential (risk-adjusted) profit, reputational gain or the acceptance of pre-compliance credits in future climate regulation, as well as a fair and transparent administration of early action programs in REDD+ countries. Concerns of engaging developing countries primarily relate to national sustainable development priorities, community and social welfare, predictability of funding, distribution of revenue, and clear authority over resources.

Table 2 Private and Public Sector REDD+ Expectations

Private Sector	REDD+ Country Governments
Expectations from international bodies (SBSTA, COP):	
i) Develop guidelines for REDD+ early action activities to be adopted at COP-16 (set start date, MRV requirements, transition into REDD+ scheme). **ii)** Initiate a work program for developing methodologies that integrate sub-national activities into national accounting frameworks (including addressing key issues such as leakage). **iii)** Provide for the integration of REDD+ into the CDM as a potential fallback option in case no REDD+ scheme under a new treaty.	**i)** Develop guidelines for REDD early action activities to be adopted at COP-16 (set start date, MRV requirements, transition into REDD+ scheme). **ii)** Initiate a process for setting reference levels (national and potentially subnational) **iii)** Provide clarity over remaining methodological issues, including MRV requirements (for support and action)
Expectations of private sector:	Expectations of REDD+ country governments:
i) Show positive spill-over effects from projects to national REDD+ strategies, including: • Support data availability and data needs assessment and related capacity building at sub-national level (beyond project level), • Support inventory establishment at sub-national and national level, • Contribution to baseline establishment at various governance levels, • Support to clarification of legal issues at national level (land use rights, carbon ownership). **ii)** Propose a roadmap to integrate projects into a national reference-level based accounting system. **iii)** Show integration of local stakeholders and civil society in project planning and implementation. **iv)** Embed projects in existing sustainable development strategies. **v)** Propose short, mid and long term project plans that	**i)** Commit to the integration of market activities in a national REDD+ strategy. **ii)** Commit to the recognition of emissions reductions or removals obtained after a specified base year but before achieving access to a crediting mechanism based upon national reference levels. **iii)** Define a national level transition phase that ensures the integration of privately sponsored REDD+ action into a national REDD+ strategy, including: • Clear procedures for stakeholders to clarify early action rules with the regulatory body on a timely basis, • Decision-making rules should be made public and must be consistent so that similar projects receive similar treatment, • Communication on rules of the scheme and any changes to them should be in internationally-accessible medium and made available also in

http://www.350reasons.org; An incomplete list of organizations opposing carbon trading and REDD can be found at: http://www.durbanclimatejustice.org/?p=71

transparently describes cost and benefit sharing during planning, start-up and implementation. **vi)** Propose a private investor exit strategy that foresees smooth hand-over of projects to domestic institutions, ensuring the sustainability of the investment.	English, • Commitments from the regulatory agency on timelines for project registration, • Oversight of the system by competent professionals with experience in forest protection as well as markets and finance. **iv)** Eliminate concerns of corruption through implementation of a transparent, rules-based and non-discriminatory system to distribute REDD+ payments. Allow private investors to own and transfer credits without the risk of the credits being revoked or cancelled.
Expectations from developed country governments:	
i) Commit to recognize early action in international offset quota of national/ regional compliance regimes. **ii)** Commit to consider investments into early action REDD+.	**i)** Commit to funding for capacity building, institutional reform, monitoring infrastructure. **ii)** Technical support for implementation of early action phase.

3. Environmental Integrity

Achieving some degree of clarity on measurement and crediting of GHG reductions is a virtual pre-condition for creating appropriate incentives and environmental integrity of early action efforts. As credits or actions are recognized in a capped or regulated environment to meet obligations – either at a fully fungible or discounted rate – there must be recognition of sufficiently credible GHG emission reductions or efforts to maintain the intent of the obligation itself: reduce emissions, alter financial incentives or change firm or individual behavior. Therefore, any early action policy should define:

- standards and eligibility criteria
- eligible categories of activities
- start dates for REDD+ emission reductions eligible for early action credit
- sector-specific considerations such as monitoring requirements
- provisions for leakage and permanence

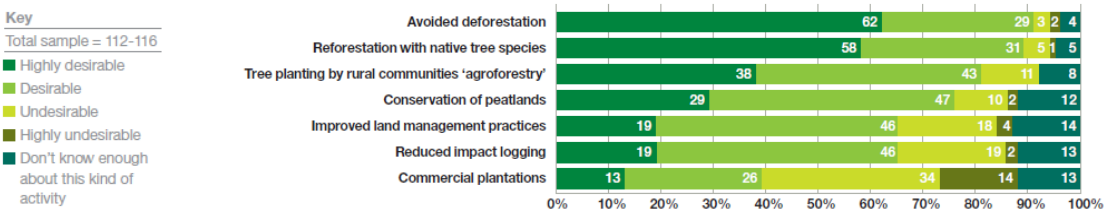
Ultimately, international and domestic lawmakers are likely to refer to existing standards that reflect the environmental integrity of sponsored legislation in grandfathering early emission reductions and defer to standards that support the project categories they are eager to promote. Experience with existing voluntary carbon standards will also inform the eventual definition of regulated standards.

3.1. Standards and Early Action

The recognition of emission reductions from REDD+ projects raises concerns about the environmental integrity of the emission reductions generated. Legislators and policy makers will be cautious to ensure that offset credits recognized for compliance purposes will correspond to real and measurable emission reductions. Any REDD+ early action activities will presumably have to account for leakage and manage permanence; they will have to apply stringent MRV and observer social and environmental safeguards. Leakage is a particular concern relating to REDD+ activities related to the national accounting requirement. If legislation is to recognize REDD+ emission reductions before the adoption of a national REDD+ reference level, it will apply conservative requirements to mitigate risks of recognizing credits not backed by real emission reductions

Despite increasing interest, very few REDD+ projects have been successfully implemented. There is great insecurity among project proponents about the criteria and characteristics of REDD+ projects. While highly desirable for promising a wide range of environmental and social co-benefits (see Figure 1), this does not necessarily translate into rigorous environmental integrity or acceptance in future compliance regimes.

Figure 1: Desirability of different types of forest carbon projects[11]



Source: Neeff et al, 2009

In the existing market, the VCS and CAR in combination with CCB certification have the greatest chance of meeting the criteria of future regulation. Both standards recognize REDD+, are generally accepted by business and NGOs, and require project specific baselines, verification, and additionality. They are also on track to secure the highest share of the voluntary market in coming years.

The other standards in the voluntary market appear less likely to win regulatory acceptance under early action. The Chicago Climate Exchange (CCX) is plagued by concerns over its environmental credibility, [12] in particular because the standard itself generously recognized early action and has relatively weak additionality tests.[13] Other standards such as Plan Vivo or VER+ are niche standards that have little following beyond a small group of organizations that support these standards for their project certification.

3.2. Regulatory Standards

There is some guidance in proposed legislation at the state and national level in the US. With respect to early offset recognition, both the Waxman-Markey and Kerry-Boxer Bills allow any person in the US to "*exchange instruments in the nature of offset credits issued before January 1, 2009, by a State or voluntary offset program with respect to which the Administrator has made an affirmative determination…for emissions allowances…*"[14] An "*affirmative determination*" of a GHG program is conditioned on a set of requirements established in these bills which include, among others, the need to (i) have methodologies and standards developed via a public consultation process, and (ii) ensure that credited emissions or removals are permanent, additional and verifiable (with the involvement of an

11 Forest Carbon Offsetting Survey 2009, (2009), Neeff, T. et al., p. 21.

12 See e.g. "States and Cities Should Not Join the Chicago Climate Exchange", open letter from 20 US environmental NGOs, including NRDC, Environmental Defense, to state and city policymakers (April 1, 2006).

13 CCX argues that it would be unfair if the proactive farmer - the critique about early action refers mostly to soil carbon project- who has been practicing no-till cannot sell his carbon credits, whereas a farmer who just started doing so in order to get revenue can earn credit. The environmental community argues that such 'rewarding early action' with carbon credits undermines the environmental integrity of offsets.

14 See ACESA, Title III, Sub-title A, Section 311 – "Title VII, Part H, Section 795"; and CEJAPA, Division B, Title I, Sub-title A, Section 101 – "Title VII, Part H, Section 782"

independent third party).[15] Furthermore, the provisions related to early offset supply under the Waxman-Markey and Kerry-Boxer Bills also allow for the recognition of offset projects which started after January 1, 2001 and for emissions reductions achieved after January 1, 2009. Generally, the same offset integrity requirements applicable for early action recognition apply for early supply of offsets.

While the provisions of reviewed Bills related to early action recognition and early offset supply primarily target programs established under US State and tribal laws, it seems that international offset credits may also be recognised under these provisions.[16] The acceptance of any foreign offset credits would however be conditioned on the relevant foreign offset program having in place standards that are at least as stringent as the standards established by domestic GHG programs.[17]

Both bills define activities eligible for international offset credits as:[18]

- projects meeting the same criteria as the domestic offset projects identified and listed by the relevant administrative authority
- sector-based initiatives
- reduced deforestation in developing countries[19]
- credits issued by an international body

Other requirements apply to the origin of the credits: Credits must be generated in developing countries party to bilateral or multilateral agreements (i) to which the US is also a signatory; (ii) that ensures requirements related to the issuance of offset credits under the US offset program apply; and (iii) that provides for an appropriate distribution amongst developing countries of international offset credits.[20] Early action as it applies to offset credits is therefore likely to measure environmental integrity in reference to existing carbon standards that should be at least equally strong as the offset standards in the relevant pending climate legislation.

3.3. Voluntary Standards

The voluntary market is composed of competing standards applicable to a spectrum of projects, most of which support land use or forestry projects. In 2008, 96% of voluntary credits were third-party verified, making third party verification a *de facto* starting point for any project or standard widely considered credible. The Voluntary Carbon Standard (VCS) was the dominant standard on the over-the-counter (OTC) market, accounting for 48% of recorded transactions. A second certification, the Climate, Community, and Biodiversity (CCB) certification which focuses on sustainable benefits, was recorded in 3% of OTC transactions but limited to land-based carbon projects which only accounted for 11% of the OTC market in 2008. The State of the Forest Carbon Market (2009) reports that the CCB certification (alone or in tandem with standards) certified about 40% of issues forest carbon

[15] See ACESA, Title III, Sub-title A, Section 311 – "Title VII, Part D, Section 740"; and CEJAPA, Division B, Title I, Sub-title A, Section 101 – "Title VII, Part D, Section 740".

[16] See ACESA, Title III, Sub-title A, Section 311 – "Title VII, Part D, Section 740(e)"; and CEJAPA, Division B, Title I, Sub-title A, Section 101 – "Title VII, Part D, Section 740(e)".

[17] Ibid.

18 Granted by the relevant administrative authority (most likely the Environmental Protection Agency), in consultation with the Secretary of State and administrator of USAID.

19 See ACESA, Title III, Sub-title A, Section 311 – "Title VII, Part D, Section 743"; and CEJAPA, Division B, Title I, Sub-title A, Section 101 – "Title VII, Part D, Section 744".

20 Ibid.

credits. The CCB standard assesses co-benefits of a project and does not quantify emission reductions so it usually is combined with an additional standard such as the VCS.

The next most common standards in the OTC market were the Gold Standard (12%), Climate Action Reserve (10%) and American Carbon Registry (9%). Other standards with even less market penetration are Greenhouse Friendly (3%), CCB (3%), CCX (3%), VER+ (2%), and ISO 14064 (1%).[21] However, most of these standards do not recognize REDD+ projects as an eligible project category. REDD+ projects are currently only eligible under the VCS, CCX, Plan Vivo, the CCB certification and CAR v 3.0.[22] The ISO standard was designed as a neutral standard that could be applied to any GHG accounting standards, but has some recognition as a stand-alone standard as well.

4. Market Integrity

4.1. Market Flooding

Creating incentives for emission reductions from REDD+ action by recognizing such reductions as offsets in cap-and-trade schemes raises concerns not only about environmental but also about market integrity. The average low abatement cost for REDD+ has triggered concerns that opening carbon markets to REDD+ would lead to a flood of credits and disincentivize emission reductions in other sectors.[23] This concern – not unique to the forest sector, but part of any offsets or allowances in a cap-and-trade system – had led some organizations to oppose markets and inclusion of REDD+ offsets for GHG emitters.[24] The EU Commission, for example, promotes a step-wise, fund-based compensation model that postpones REDD credit market to the post-2020 commitment period.[25]

The risk of REDD+ flooding depends in the first place on the overall ambition of emission reduction targets combined with available supply of credits. Market REDD+ market fears are not generally supported by economic models, and a number of policy mechanisms are available to limit this risk, assuming a reasonable demand for credits in line with the stated international goal of keeping "*the increase in global temperatures…below 2 degrees Celsius*" reiterated in the Copenhagen Accord. The primary reason for this is that supply of REDD+ credits is less than the biophysical potential of the existing forest estate. Restriction on eligible lands, project management challenges, political complications and development costs (potentially higher than abatement costs or opportunity costs) all play a role. Some early reductions in deforestation are not necessarily cheap (such as cancelling timber concessions for conversion to intensive agriculture) while 'cheap' reductions from an opportunity cost perspective (compensating for lost economic activity) are not necessarily fast: emission reduction from fuel wood gathering and shifting cultivation by peasant

21 CAR does allow "forest conservation and management." CAR also has a different a/reforestation protocol.

22 This was possible since the adoption of the Forest Project and Verification Protocols, September 1, 2009. See: http://www.climateactionreserve.org/how/protocols/adopted/forest/current/

23 Forest Carbon Index: 2009 Report, Joint report by Resources for the Future and Climate Advisers (2009); Deveny A., Nackoney J., Purvis N., Kopp R., Myers E., MacCauley M., Obersteiner M., Kindermann G., Gusti M., Stevenson A.; November 2009; McKinsey and Company (2009a), Pathways to a Low-Carbon Economy: Version 2 of the Global Greenhouse Gas Abatement Cost Curve, March 2009.

24 REDD and the 2C target: Implications for Including REDD Credits in the International Carbon Market (2009), Livengood E.; KEA3 Limited, March.

25 SEC(2008) 2619/2 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Social Committee and the Committee of the Regions, Addressing the challenges of deforestation and forest degradation to tackle climate change and biodiversity loss, Brussels, 2008

farmers likely requires extensive efforts over many years to change farming and energy systems, as well as extensive measuring and documenting efforts.

In addition, REDD+ countries are aware of liabilities pertaining to the permanence of emission reductions in the forest sector. They will likely retain emission reductions, or establish buffers, to permit future forest clearance. In sum, REDD+ credits might be offered at low prices initially and potential abatement volumes might seem large, but prices are expected to increase over time and tradable volumes will be significantly lower than technical potential for REDD+ abatement.

5. Strategies for Incentivizing REDD+ Early Action

Policy makers can stimulate early action for REDD+ by creating demand for REDD+ credits either by the public or the private sector. The various options for stimulating REDD+ demand are reviewed below. The risks involved in these mechanisms, while significant, should be manageable if identified and addressed in the design of early action mechanisms. Table 3 summarizes major categories of risk associated with early action opportunities described in further detail below.

Table 3 Early Action Risks

Risk factor	Description
Environmental Risks	
Dubious environmental integrity	Early action incentives may be based on insufficient research, data, experience and thus reward activities that are not resulting in real and measurable emission reductions. Poorly designed early action measures may therefore put at risk the environmental integrity of the measure in addition to creating political and reputational risks.
Political Risks	
Loss of political support	The loss of political backing of implemented early action measures risks undermining confidence in larger carbon market efforts and the ability for future measures to attract private financing.
'Lock-in' of methodologies and standards	Governments or other constituencies in early action may favour standardization without adequately addressing buyers or seller needs and/or allowing sufficient time for innovation from a diversity of approaches.
Creation of expectation	Early action incentives may limit the government's flexibility in adopting various or new policy approaches by creating expectations regarding particular policies and action.
Voluntary actions	Expectations of voluntary and corporate social responsibility actions may dilute investor interest in more large scale, economic approaches.
Market and Investment Risks	
Market volatility	Excessive swings in carbon prices given the early and uncertain stage of the market, and the role of early action mechanisms, could discourage confidence and future investment.

Excessive discounting	Overly conservative discounting of credits (for example, discounting early action credits from 3:1 for compliance purposes) would dilute the value and damage prospects for all early action investments.
Expiration tax subsidies	The boom and bust cycle of tax breaks and other temporary benefits can lead to unsupportable growth that does not lead to an independent economically-viable carbon sector.
Stifled innovation and market distortions	Incentives have the potential to enhance policy objectives, but may also distort market forces leading to diminished market options (project types, standards and actors) and artificial focus on certain sectors.

5.1. Creating Demand for REDD+

1. *Launching public REDD+ credit procurement programs*

A government may decide to stimulate demand for early REDD+ credits by establishing a public REDD+ procurement program. Government procurement programs for early REDD+ credits could be modelled after the Dutch ERU procurement tender (ERUpt) or the CER procurement tender (CERupt). These programs where set up in 2000 and 2001 respectively to purchase early credits from Joint Implementation and the Clean Development Mechanism. Both programs issued calls for projects to which project sponsors could respond. The first tenders, issued before the adoption of the Marrakech Accords, applied a Dutch interpretation on how the modalities and procedures for the mechanisms could look like; later rounds of tenders applied the agreed JI and CDM modalities and procedures. The World Bank's early Prototype Carbon Fund fulfilled a similar mission when it negotiated the first purchases of verified emission reductions with projects that it hoped would later qualify for registration under the CDM or JI.

The Supplemental Emission Reduction Program proposed by the Waxman-Markey and Kerry-Boxer climate bills under consideration aims to prepare countries for a REDD+ scheme.[26] It would be funded through an allowance set-aside with a likely additional injection by the Senate Finance Committee. This preparedness program could be used to purchase early action credits that are not deemed to be eligible for compliance but are of high quality and provide for clear learning benefits to the host country.

In January 2009, the EU Commission proposed to test the inclusion of deforestation credits into the carbon market through the recognition of offsets from that sector for government compliance in a trial period from 2012 to 2020.[27] The proposed trial period could be opened up for REDD+ early action credits which could then either be retired or used for Government compliance. The EU's announcement to dedicate a part of the offset quota to sectoral credits in the EU Emission Trading Scheme shows that there is some understanding of the need to create a demand for a learning phase. This would logically also apply to the REDD+ scheme.

The EU Climate and Energy Package provide for the use of auctioning revenues for measures to reduce deforestation as well as to increase afforestation and reforestation.[28] Auctioning

[26] ACESA, Title III, Sub-title A, Section 311 – "Title VII, Part C, Section 753"; and CEJAPA, Division A, Title III, Sub-title B, Section 101 – "Title VII, Part E, Section 751".

27 COM(2009) 39 final, January 28, 2009. part 2

28 2008/13 (COD), Art. 10

revenues will be managed at member state level. As a result, individual EU member states could set-up early action purchase programs in which they use auctioning revenues to support establishment of a REDD scheme through purchasing early action credits for mere retirement.

2. Linking the acquisition of REDD+ credits to energy intensive investments

In the absence of comprehensive cap-and-trade approaches to carbon constraints, many regulatory agencies at the national and sub-national level in developed countries are moving forward with aggressive permitting requirements on new-build fossil fuel assets, such as coal fired power plants or refineries. In the United States, the EPA is currently considering strict new regulations on large carbon emitting assets.

Permit negotiations increasingly involve investment in offset projects by the developer as an option to address the increased GHG emissions from the construction of the underlying asset. Examples include Kansas City Power & Light's 2007 agreement with its public utilities commission and the Sierra Club to invest in wind projects to offset the GHG emissions from a proposed new coal-fired power plant in Missouri,[29] or numerous examples in California where expansions ranging from a ConocoPhillips refinery, a San Diego desalination plant, and a large Southern California suburban real estate development were required to invest in offsets to mitigate their greenhouse gas impacts.

While permitting processes move in parallel or separate from cap-and-trade legislation, to the extent that permitting negotiations and project developers propose investing in early action REDD+ projects as a suitable offset measure, this could become a meaningful source of demand for REDD+ early action from the private sector.

3. Acceptance of REDD+ emission reductions for compliance in cap-and-trade regimes

The strongest way to incentivize private sector REDD+ activity is for governments to signal the acceptance of verified REDD+ emission reductions under future domestic or regional cap-and-trade systems. Under such an early action program, voluntary GHG emission reductions are fully (1:1 conversion ratio) or partially (a 2:1 or 3:1 discount to account for the potential of lower environmental benefits) convertible to allowances.[30] This frames REDD+ action in terms of existing investment language and conventional business models. Upfront investments into a project or investment activity will generate future revenues from the sale of products or commodities. The source of return on investment is clear and market-driven, and thus familiar to private sector actors who are equipped with conventional techniques and tools for assessing potential risks and value.

These strategies work well when climate legislation is either pending or adopted but trading period has not yet begun. Setting a maximum percentage of allowable credits also addresses and mitigates the problem of flooding the market with RREDD+ credits. In addition to quantitative limitations, law makers can also impose qualitative limitations. They can limit recognition to particular countries, projects, categories and applicable standards (for each of

29 See e.g., "Electric Utility, Sierra Club End Dispute", Washington Post, March 20, 2007 http://www.washingtonpost.com/wp-dyn/content/article/2007/03/19/AR2007031901606.html

30 An alternative to discounting is limiting the percentage of eligible early action credits eligible under for compliance credit, similar to the EU ets limit on international offsets from CDM and JI credits.

which there is precedent in the existing linkages between the CDM and regional cap and trade systems such as the EU ETS and in the US).

Private sector investment in REDD+ activities remains highly speculative until a process for credit recognition is better defined. At the moment, REDD+ investors tend to invest conservatively, secure REDD+ country support, and follow strict carbon accounting and MRV standards with the expectation that this planning will pay off through inclusion in a future climate regime. However, this severely limits the pool of available capital and firms willing or able to invest in REDD+. Clarity on recognition of early action could expand this considerably.

The Waxman-Markey and Kerry-Boxer climate bills seem to include the possibility of recognition of international offsets under the provisions related to early action recognition and early offset supply (the latter applies only for projects started after Jan. 1, 2001 and for emissions reductions achieved after January 1, 2009).[31] These provisions would arguably also be extended to international avoided deforestation projects, backed by eligibility criteria to assure for high quality credits suitable for compliance.

4. Recognition of early action in allowance allocation

Entities regulated under a cap-and-trade regime could receive credit for early action REDD+ investments and efforts. This is similar to full acceptance or fungibility of credits, but creates more ex-ante control. The relevant authority thus recognizes such early action in the allocation decision by swapping REDD+ credits for allowances. As in the previous example, swapping can be moderated with or without a discount. The advantage of taking early action into account at the moment of allocating allowances is that the cap-and-trade regulator can set the amount of accepted early action credit before the trading starts. It is known from the start how much early action credit is reported and has been recognized.

The acquisition of offset credits or the investment in offset projects does so far not belong to the set of activities that would receive recognition in the allocation of allowances under any existing cap-and-trade regime, although certain provisions of draft US federal- and state-level cap-and-trade bills do take this approach.

5. Sectoral cap-and-trade systems for REDD+ in developing countries

Binding sectoral emission targets of developing countries with respect to REDD+ would offer robust investor certainty for future demand in context of international climate legislation. Although highly improbable given the stance of developing countries in international climate talks, developing countries could distribute government allowances and define allocation of allowances to sector programs and project activities including early action. At the UN level, host countries would be fully liable for their national mitigation effort. At the national level, liability could be shared with or transferred to project-level activities through designing domestic buffer schemes.

The attractiveness of this approach for investors is that such a scheme could be linked to existing trading schemes and hence credits from REDD+ activities as allowances would be fully fungible with other allowances. Furthermore, this approach would also harness domestic private capital, arguably preferable over international investment due to the lack of currency risk and restrictions on international allocation for domestic investors.

[31] See ACESA, Title III, Sub-title A, Section 311 – "Title VII, Part D, Section 740"; and CEJAPA, Division B, Title I, Sub-title A, Section 101 – "Title VII, Part D, Section 740".

While technically attractive, this is the most difficult option politically. Few if any developing countries are willing to take on binding national targets although the announcement of countries like Brazil and Mexico suggest there may be room for compromise on voluntary or domestic commitments. Institutional and governance reforms are also required to administer such a scheme. Nevertheless, non-binding targets compatible with a binding future target could give investors in early mover countries more incentive to make direct investments.

5.2. Stimulating Investments

In addition to the market-pull support for REDD+ credits and action via creating direct sources of demand, governments and public sector institutions can devise a number of incentives and instruments to push private sector investment into REDD+ early action. This kind of support typically takes the form of investor incentives to (partially) transfer risks and bear costs associated with early action and capacity building in REDD+ activity.

1. Tax incentives

Favorable tax treatment of investor returns or private sector revenues from REDD+ early action in the developed and developing country tax jurisdictions of project developers and sponsors would help increase incentives and spur action. Depending on the jurisdiction and nature of activity, taxes can claim anywhere from 10-50% of the positive economic value of emission reduction projects (EBITDA). There is a long history of favorable tax treatment for renewable energy, energy efficiency, and not in the least conventional oil and gas investments in the United States and other developed countries. Extending this treatment to REDD+ investment activity would recognize its high risk nature and reward this with increased (tax-free) returns, as well as benefit currently marginally economical projects. Given the scope of likely REDD+ activity in the next few years it is unlikely such tax measures would be a meaningful drain on government treasuries, unlike e.g. solar tax credits in Germany or conventional oil and gas tax subsidies worldwide.

2. Low-cost loans or loan guarantees

Low-cost loans or loan-guarantees to private sector (or equivalently to public sector) REDD+ activity similarly has the potential to boost returns and reduce risks by providing a lower cost of capital or hurdle rate to project investment. While unique, REDD+ activities do share a number of risks with more conventional developing country resource and infrastructure investments — country risk, currency risk, illiquidity risk, property rights and contract default risk, project management risk, regulatory risk, legislative risk, nationalization risk, and others— that make these activities among the riskiest form of opportunities available to the private sector. Investors correspondingly demand the highest returns. Making low-cost loans or loan guarantees available to support such projects could materially lower the overall cost of capital of such projects and thus enlarge the pool of private capital that is able to tolerate the associated risks. Multilateral agencies, such as the Overseas Private Investment Corporation, have a long history of providing such low-cost loans to both direct investments and even investment funds, and could provide one model.

3. Public/Private finance partnerships

The recent financial crisis and global stimulus efforts has opened new doors and techniques to the collaboration of public and private capital in financing the highest risk assets and

transactions in the financial markets. The US Public-Private Investment Program (PPIP)[32] provides one such example. It was created by the US Treasury to target the freeze in the financial markets around so-called toxic mortgage assets during 2008-2010, wherein transactional activity ground to a halt due to extreme risk aversion and inability to price the market value of these assets.

Any nascent market such as REDD+ shares the same investment-barrier characteristics: extreme risk aversion and inability to appropriately value assets and opportunities. The structure of the PPIP involved the government providing both debt and equity to match private sector equity contributions to investor-managed funds; this lowers the overall cost of capital of the fund and allows the government to participate in any upside, while allowing the investment decisions of the funds, in particular which assets and what price to pay for them, to remain determined by the private sector. The main benefit of such an approach is that the public sector can help determine the use of proceeds at the macro-level to align with policy objectives, while keeping commercial decisions controlled and "priced" by the private sector. Similar structures or variations thereof could be employed to establish public/private finance partnerships for REDD+ early action.

5.3. Creating an Enabling Environment

1. Government action in REDD+ methodology and modalities development

Governments will ultimately need to engage actively in efforts to define eligible REDD+ credits in order to mobilize private funding and activity at a meaningful scale. Carbon credits are ultimately defined by the set of rules, standards, and modalities that determine their eligibility for use in compliance carbon markets. In this regard, early action is enabled by eligibility criteria. Project proponents can shoulder a reasonable amount of risk in return for a degree of certainty about the eligibility of their investment in a cap-and-trade system.

Governments can also accelerate the process of REDD+ early action by lending weight to methodology development initiatives and other critical components of establishing REDD+ eligibility criteria. Such activity is more technical than political in nature and thus can occur at a regulatory level independent of the legislative process. If the US Environmental Protection Agency (EPA), for example, were to become actively involved in developing REDD+ methodologies and modalities, this would lend a significant amount of credibility to the corresponding approaches to early action activity, both in the public and private sectors. The US EPA has already gotten involved in domestic offset level protocol development, for example by participating on the working group of the Climate Action Reserve's ozone-depleting substances project protocol. Similarly, the State of California has signed a memorandum of understanding with sub national governments in Brazil, Mexico, and Indonesia to "*jointly develop rules to ensure that forest-sector emission reductions and sequestration could pass the strict criteria outlined in California's AB 32 Scoping Plan and potentially play a role in the Western Climate Initiative effort*"[33]. More activity and coordination among governments in determining eligibility rules and methodologies for REDD+ early action would have a stimulating impact on the market.

Governments can also add clarity to the definition of REDD+ credits by channelling financing to early action REDD+ projects with an eye toward active, experiential approaches to methodology and modality development. Concentrated government activity either on

32 http://www.financialstability.gov/roadtostability/publicprivatefund.html

33 Text of the MOU: http://www.gov.ca.gov/press-release/11101/

methodology development or direct financing for early action projects will attract and leverage private sector capital to this sector, and provide valuable learning for public and private institutes as this new market evolves.

2. Reduction / subsidy of transaction costs

Variations on the above public finance instruments can be targeted to more limited support for specific components of required expenditures for REDD+ activities. A clear need is funding early development costs such as project setup and documentation expenses, baseline establishment, as well as marketing costs for developing country project sponsors to meet international investors. Such transaction costs are typically fixed and independent of the size of the project. Fragmented sources of such support do exist from various government agencies, multilateral institutions, and private foundations, although much work is needed in coordinating these pockets of grant/subsidy assistance. A clearinghouse for such development financing sources would be a valuable addition to REDD+ capacity building efforts.

3. Support governance reforms and REDD+ readiness

Governments contribute also to the facilitation of private investment in REDD+ by assisting developing countries in improving the overall REDD+ investment climate. Relevant support may relate from land title and tenure reform over strengthening enforcement capabilities to promoting the rule of law and a strong judiciary. While such reforms are essential for the long term sustainability of REDD+, they are unlikely to result in improved conditions (and hence investment) in the short term.

5.4. CSR and Corporate Governance

1. Marketing and corporate social responsibility

Depending on company outreach and service or product chain, firms can invest in REDD+ as a domestic compensation measure or purchase voluntary credits from REDD+ projects to neutralise the carbon footprint of own operations as part of their corporate social responsibility strategy. Several large corporations, banks and public institutions have already invested in such CSR programs. For firms active in consumer markets, a service or product could be offered in' carbon neutral version', in which case firms may pass part or all the cost of the investment in REDD+ projects to their customers. There are already established markets particularly for products with an obvious link between the product/service offered and the environmental impact (e.g. airlines such as Delta, EasyJet and BP's Global Choice retail offset fuel in Australia).

2. Include REDD+ action in investor disclosures

Recent investment-sector initiatives such as the increased traction of the voluntary Carbon Disclosure Project or the US Securities and Exchange Commission's "interpretive guidance" that public companies must disclose climate-related risks and opportunities material to performance or valuation could represent a source of incentive for private sector REDD+ action. Companies may find new incentives to undertake and disclose proactive emission reduction measures, in part through supporting offset projects including REDD+ to counterbalance risk exposure from their emissions footprint.