

REDD and opportunities for the promotion of rural development projects in Brazil¹

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Abstract – Concerns related to the role of tropical forest in climate change have been raising attention for the need of enhancing sustainable policy instruments for forest conservation together with agricultural growth. One of the instruments that have been under recent negotiation within the framework of the UNFCCC is the Reducing Emissions from Deforestation and Forest Degradation mechanism, more known by its acronym, REDD. This paper argues that there is a potential positive and important role of REDD in the promotion of not only forestry conservation, but also sustainable agriculture and rural development. A description of what consists the concept of REDD and its evolution under the climate change negotiations is given, as well on the latest round of climate change negotiations. The paper later turns to argument that the REDD discussion should expand the view of forest conservation to the inclusion of agriculture and rural development aspects, because of the significant interaction of policies and effects in both domains. In practice, REDD initiatives are already expanding the scope of rural projects to include actors involved in agriculture, and the paper describes the case of *Amazon Fund*, a Brazilian REDD initiative recently presented at Copenhagen Conference which goes in this direction. The paper finally concludes that progress on REDD discussions could generate funds for important projects aimed at promoting forest conservation, while addressing the need of development of rural areas and agricultural growth.

Keywords: agro-environmental payments, climate change, payments for conservation, REDD+.

REDD e oportunidades para a promoção de projetos de desenvolvimento rural no Brasil

Resumo – Preocupações relacionadas ao papel das florestas tropicais nas mudanças climáticas têm chamado atenção para a necessidade de estabelecer instrumentos de políticas sustentáveis para conservação florestal em conjunto com aumento da produção agrícola. Um dos instrumentos que tem sido objeto de negociações no âmbito da Convenção-Quadro das Nações Unidas sobre Mudança do Clima (UNFCCC) é o mecanismo de Redução de Emissões de Desmatamento e Degradação florestal, mais conhecido por sua abreviatura REDD. Este artigo argumenta que existe um potencial

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positivo e importante para o papel do mecanismo REDD na promoção não apenas da conservação florestal, mas também da agricultura sustentável e do desenvolvimento rural. É apresentada uma descrição sobre o que consiste o conceito de REDD, sua evolução no âmbito das negociações sobre mudanças climáticas, bem como sobre a última rodada de negociações. O artigo então se volta para o argumento de que a discussão sobre REDD deveria expandir a visão sobre conservação florestal em direção à inclusão de aspectos da agricultura e desenvolvimento rural, tendo em consideração as significativas interações entre políticas e efeitos em ambos os domínios. Na prática, as iniciativas de REDD já estão expandindo o escopo dos projetos em zonas rurais com a inclusão de atores do setor agrícola; o artigo descreve o caso do Fundo Amazônia, uma iniciativa brasileira de REDD inicialmente apresentada na Conferência de Copenhague, a qual segue esta direção. O artigo finalmente conclui que o progresso das discussões sobre REDD poderia gerar fundos para importantes projetos direcionados a promoção da conservação florestal, ao mesmo tempo em que considerem a necessidade do desenvolvimento rural e crescimento da agricultura.

Palavras-chave: pagamentos para serviços ambientais, pagamentos agroambientais, mudanças climáticas, REDD+.

Introduction

The abbreviation REDD stands for Reducing Emissions from Deforestation and forest Degradation. While is not clear yet in the negotiations of climate change the exact scope and a precise definition of what could be considered a REDD project or policy is still lacking, REDD is usually described as a logical set of objectives for reducing deforestation that generates a mechanism of payment for conservation and protection of tropical forest in developing countries (GTZ, 2009).

The idea of payment for environmental conservation is clearly not new and it has been applied in the forestry and agricultural policies of developed countries for some decades. Examples of these policies are the Conservation Reserve Program (CRP) (USDA, 2010) within the framework of the United States Farm Bill, which aims to provide payments and technical assistance to farmers that wish to set aside and protect environmentally sensitive areas of their properties; and the agri-environmental payments of the European Union Common Agricultural Policy, which aims to compensate farmers for their profit forgone when adopting environmentally friendly practices in farming (HANHARAN; ZINN, 2005).

The theoretical economic argument for this kind of policies is explained by the problem

of market imperfections and the characteristics of public goods. Even though the benefits of maintaining forest cover – biodiversity protection, carbon storage, climate regulation, etc. – are public, the burden of protecting or not using the area for alternative uses is private. Given actual market conditions, those benefits are not valued properly nor are reflected in the opportunity cost of land, reflecting in lower prices compared to the potential prices of including the environmental benefits of forest conservation (PERMAN et al., 2003). Therefore, environmental payments policies and projects aim to create positive economic incentives by transferring resources from the society to individuals in exchange of some change in behavior, like reducing fertilizers use, stopping deforestation practices, etc.

However, payments for conservation and protection of tropical forest in developing countries are not well developed as the policies already under implementation in developed nations. In general terms, the whole concept of forest conservation took some years to seriously enter into national agendas and the economic and environmental interactions of the forest and agricultural sectors are still under study and discussions, so policies are yet under definition in many cases.

Additionally, the question of transferring resources from the society to individuals

in exchange of behavior change requires functional and well-designed institutions, necessary to guarantee effectiveness and transparency of the resource transfer, which may become a challenge for the implementation of payment policies in developing countries. There are important exceptions, for sure, with successful and unsuccessful cases of projects aimed at conserving tropical forest areas by implementing some sort of payment, transfers or technical assistance. One successful example that is worth to mention in Latin America is the payments for environmental services in Costa Rica (SÁNCHEZ-AZOFEIFA et al., 2007).

REDD and climate change

Furthermore, even though the practice of environmental payments is definitely not new and the idea of creating positive economic incentives for tropical forest conservation is already under discussion and test for some years, the additional concern of climate change has been pushing the promotion of REDD in developing countries, as an important part of the mitigation and adaptation strategies to face this world challenge.

Tropical forests are a very important source of carbon stock and deforestation practices are one of the main emitters of greenhouse gases. The Intergovernmental Panel on Climate Change (IPCC) estimates that land use, land-use change and forestry sector, called LUC, accounted for some 18% of total emissions between 1989 and 1998, while deforestation was responsible for approximately 10% of total emissions (IPCC, 2000). This issue is of particular importance for some tropical developing nations, like Brazil, Indonesia and Malaysia, where tropical deforestation (LUC) counts for the majority of GHG emissions³.

In addition, recent studies of mitigation options are showing that reducing deforestation

is very cost effective, when compared to other mitigation strategies (MCKINSEY & COMPANY, 2009), mostly because of the low revenue generated in the majority of deforestation practices⁴. Thus, from a mere marginal issue in the beginning of the 2000s, REDD is becoming one of the core issues of climate change negotiations nowadays.

From RED to REDD and REDD+

The idea of contemplating emissions reductions from avoided deforestation was not considered in the Kyoto Protocol and it was somehow out of the official agenda of climate change negotiations for the Post-Kyoto international regime until 2005 (GTZ, 2009). Back in the 1990s, the main emphasis of climate change mitigation was only on the Annex I countries – specially the transport and energy sectors, related to the usage of fossil fuels –, or those developed and industrialized nations that are accounted for the majority of greenhouse gases historical emissions, in synergy with the “common but differentiated responsibilities principle” presented in the United Nations Framework Convention for Climate Change (UNFCCC).

Besides, developing nations’ governments were not willing to accept the inclusion of forest management in an international agreement because of the suspicious thought that to agree with targets would generate a source of “external interference” in internal issues.

These arguments began to lose strength in further talks by the obvious necessity of incorporating deforestation due to the significant contribution to GHG emissions and climate change. So, in the UNFCCC Conference in Montreal, 2005, a proposal made by Costa Rica and Papua New Guinea presented the concept of “compensate reductions” of deforestation, linking the idea of transferring payments from

³ In 2000, 76% in Brazil, 88% in Indonesia and 75% in Malaysia (EARTHTRENDS, 2008).

⁴ Even though there are cases where forest clearing is undertaken to invest in highly profitable activities – examples are forest clearing for palm plantations in Indonesia and soybean production in Brazilian Amazon – a significant part of deforestation is conducted by slash-and-burn agriculture, which clear forest for the implementation of low revenue farming and which could be significantly reduced by low payments per hectare (MCKINSEY & COMPANY, 2009).

developed to developing nations that are efficiently conserving their forests (GTZ, 2009). That time, the discussions lead to the use of RED concept in negotiations – Reducing Emissions from Deforestation.

The compensate reductions idea began then to gather supporters from big tropical forested countries, like Indonesia and Brazil, who were especially concerned with the ongoing argument that medium income developing countries are prepared and should also accept GHG emission targets. Those countries began to see the RED concept as a way of financing their mitigation strategies with international funds. On the other hand, developed nations also started to see RED as a potential source for flexibility in their emission targets, in the same way as the Clean Development Mechanism – CDM operates.

In December 2007, in the Bali Conference, the concept of REDD was crystallized in the Bali Road Map (or Bali Action Plan), with the inclusion “forest degradation” idea⁵:

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).

In the Bali Action Plan, parties of the UNFCCC were also encouraged to promote pilot projects on REDD, in a way of assess the challenges, costs and benefits of these initiatives.

The later part of the REDD concept presented in the Bali Action Plan was later referred⁶ as the plus of REDD+, that would consider not only the reductions of deforestation itself, but also other policies and projects related to “conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries” (GTZ; CDB, 2009).

Issues at stake at Copenhagen climate change negotiations in REDD

The discussions on REDD were supposed to reach a meaningful progress and conclude as part of the agreement that it was supposed to be reached in the Copenhagen Climate Conference, in December 2009. However, in despite of the great attention that international community had during those political talks, any official agreement in REDD negotiations were not being able to be reached due to the failure of the Conference in producing a binding agreement on climate change.

In Copenhagen, some of the issues that were under deep discussions were the concepts of (PARKER et al., 2009):

- a) Scope: refers to the activities that are eligible under the framework of REDD. Option at negotiations were only deforestation (RED), deforestation and degradation (REDD) and conservation, sustainable management of forest or other practices that increases the amount of carbon stocked in forests (REDD+);
- b) Reference period refers to which timeline reductions would be compared. Options included “historical”, “historical adjusted” and “project” baselines;
- c) Scale: refers to which level of governance REDD would be considered. Options were national, sub-national and international levels;
- d) Financing: refers to the source of funding and options were international fund (voluntary fund), carbon market, market-linked and phased approach.

Since no meaningful agreement was achieved in Copenhagen⁷, any progresses in the mentioned issues are still on the table of negotiations. Political statements given during

⁵ Which is basically the case where deforestation happens without full clearing of forest cover, but with slow degradation processes.

⁶ Officially, since August 2008, during Ghana Climate Talks.

⁷ The final document approved in the Conference was a political declaration that the majority of analysis said it was far from the ambitious outcome that international community was expecting (UNFCCC, 2009).

the conference declared that Copenhagen talks were going to propose the establishment of a international fund – called the Copenhagen Green Climate Fund – for the funding of REDD policies and projects that would initially generate US\$ 10 billion a year in the period of 2010 and 2012, calling for further increases to US\$ 100 billion a year by 2020 and that carbon markets would be a source of fund raising for the Green Climate Fund.

However, draft documents circulated in the Conference did not mention officially target for deforestation, nor long-term finance commitments from donors (LANG, 2009; RECOFT, 2009).

The argument for expanding the scope of REDD: from forestry community to a rural and agricultural development approach

REDD was an issue initiated within the forestry community and climate change talks and, so far, discussions have been conducted under the framework of UNFCCC but somehow separated from the agriculture and climate change discussions. An evidence of this separation of discussions domains is given by the agendas of the Agriculture and Rural Development Day (ARDD)⁸ and the Forestry Day 3 (FD3)⁹, two parallel events that took place during the Copenhagen Conference.

While the Forestry Day agenda was full of workshops, seminars and discussions on how to enhance REDD policies, how to increase transparency, how to implement projects, etc., in terms of mitigation strategies, the Agriculture Day focused only on the potential of carbon markets and agriculture related to carbon soil sequestration, no-tillage practices, efficient fertilizers use, etc. Considering that both of the

events were organized by the most important international organizations and counted with distinguished actors and participants in their areas of work, one could think that the discussions about avoided deforestation was so far being conducted almost exclusively by the forestry community.

However, interconnections of both forestry and agricultural sectors are so important in the real world that is unlikely that REDD initiatives that ignore agricultural and rural development aspects are going to be successful. Especially for some Latin American countries that share borders in the Amazon Region, forestry conservation is intrinsically interlinked with agricultural and rural development, since the expansion of agricultural land is counted as one of the main drivers of deforestation in the Amazon.

REDD policies and projects could promote the adoption of more sustainable practices in agriculture, including deforestation control, while addressing the need for rural development in one of the poorest regions of Latin America. If one applies the theoretical economic argument in favor of implementation of payments for environmentally friendly practices, the conclusion would be that unsustainable practices in agriculture – like deforestation – is sometimes considered not because farmers are not environmentally concerned or are not willing to cooperate, but because there are incentives for forest clearing and farming is more profitable than forestry conservation or protection.

Therefore, policies and projects that helps to transfer resources from society to farmers attributing roles and responsibilities in controlling and avoiding deforestation should be in the scope of REDD and could invert the logic of land clearing through deforestation for the expansion of agricultural land.

⁸ The Agriculture and Rural Development Day (ARDD) was an one-day parallel event to the Copenhagen Conference, organized by international agricultural and rural and development organizations – CGIAR, ESSP, FAO, GFAR, IFAP and IFPRI – and the University of Copenhagen that took place in December 12th, 2009, and discussed agriculture role in mitigation and adaptation strategies of the rural sector to face climate change. For more, visit: www.agricultureday.org.

⁹ The Forestry Day 3 (FD3) was the third edition of an event that takes place in parallel with the Climate Conferences. The Forestry Day 1 and 2 were organized in parallel with Bali and Póznán Conferences in December 2007 and 2008, respectively, being the latest edition parallel to Copenhagen Conference. The host organizer is CIFOR, but there are more than 15 main international organizations and development agencies involved in the preparations of the events. For more, visit: <http://www.cifor.cgiar.org/events/forest-day/2009-copenhagen.html>.

In practice, this expansion of the scope of REDD initiatives is already being conducted. The REDD pilot projects that were encouraged by the Bali Action Plan and that are being implemented nationally or sub-nationally are truly diverse, including a wider range of actors – some of them includes small farmers and commercial agriculture. A case which is explored in this paper is the Brazilian initiative presented at Copenhagen Conference called *Amazon Fund*.

Amazon Fund: a Brazilian REDD initiative with an agriculture interface

Amazon Fund (*Fundo Amazônia*) is an initiative in REDD that have been developed by the Brazilian Government in the last years and that was “published” during the Copenhagen Climate Conference. It consists of a public-privately managed voluntary fund that aims to receive contributions from donor countries and agencies in order to invest and support projects that reduce deforestation or promote the conservation or sustainable management of Amazon tropical forest (MARTINS et al., 2009).

The fund is administratively managed by the Brazilian National Development Bank – *Banco Nacional de Desenvolvimento Econômico e Social* (BNDES) –, a public branch of the Ministry of Development, Industry and Trade – *Ministério do Desenvolvimento, Indústria e Comércio* (MDIC) – that provides long-term low-interests loans for private sector investments in business development. However, the Amazon Fund is controlled by a Guiding Board composed by six civil society institutions, nine Amazonian States and nine Federal Government Ministries and Agencies, which is in charge of approving or disapproving project proposals. Besides, a Technical Board, composed by six environmental specialist appointed by the Ministry of Environment, is responsible for the estimations of carbon

savings from avoided deforestation, sustainable management of forests, etc. (BRASIL, 2008).

So far, the Amazon Fund had received an initial contribution from the Government of Norway, which compromised to invest US\$ 1 billion until 2015 in the Fund, if deforestation policies and projects prove to be successful in their goal achievements. This first contribution from Norway made possible the approval of the first five projects – from a total of 58 presented – in a total sum of R\$ 70.3 million (approximately US\$ 39 million) (BNDES..., 2010).

From this five already approved projects, two are examples of REDD projects that have a very important agricultural interface, thus that are already considering important aspects of rural development and that are planning to involve farmers in their implementation.

One project is going to be conducted by The Nature Conservancy (TNC)¹⁰ environmental organization that intends to use R\$ 16 million (approximately US\$ 8.8 million) that will be received from BNDES to promote the property rights and environmental regularization of rural properties in 12 municipalities in two states of the Amazonian Region, affecting a total area of around 12 million hectares. Another project, which is going to be conducted by Imazon¹¹, a national non-governmental environmental organization, will receive R\$ 9.7 million (approximately US\$ 5.4 million) to achieve similar objectives in other 11 municipalities in the State of Mato Grosso, affecting a total area of 6.6 million hectares (BNDES..., 2010; 2009).

Both projects will try to solve two major problems that are correlated with deforestation dynamics in the Brazilian Amazon, the insecurity of property rights and land titles and the low enforcement of the environmental law. According to the Brazilian environmental law, every farm in the Amazon Region should have 80% of its total area preserved, or completely set-aside from any economic activity that requires forest

¹⁰ The Nature Conservancy Brazil: www.nature.org/wherewework/southamerica/brazil

¹¹ Instituto do Homem e Meio Ambiente da Amazônia – Imazon: www.imazon.org.br.

clearing, like farming. However, the effectiveness of the application of this law (law enforcement) is seriously flawed because of several reasons, like insufficient surveillance systems, inconsistencies in land titles, corruption of local authorities, etc. Therefore, one of the policy strategies developed in recent years by the Federal Government for reduction of deforestation in Brazil was to block any official funding in those municipalities that have been presenting consistent problems with illegal deforestation, forcing rural owners to register the environmentally preserved areas of their properties according to the law. However, the policy of forcing rural producers to register their properties faced structural inefficiencies in the government bodies, like the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA), which should be responsible for encouraging and providing technical assistance to farmers to comply with the environmental regulation.

The two Amazon Fund projects, therefore, could try to solve these problems by providing funding and technical assistance for the municipalities and farmers that are willing to register the environmental profiles of their properties, in order to unblock the official funding, for instance, designated to agricultural policies in the region. And to restore the supply of agricultural policies to farmers that are willing to take part of these projects in these municipalities could be a strategic to boost agricultural production in accordance with the environmental rules.

Conclusion

REDD discussions are still far from resulting in an agreement for the creation of an international fund or market for the implementation of payments for avoided deforestation or conservation of tropical forests in developing countries. However, some initiatives that are already being tested in some nations could draw recommendations for further negotiations in delicate issues like institutional arrangements, scope, scale and transparency of implementation.

Which regards the promotion of rural development in developing countries, one issue of significance importance in the REDD discussions relates to the scope of policies and projects. The paper argued that rural and agricultural sectors could be potentially benefited from REDD mechanism if policies and projects take in consideration the intrinsically connections of forestry and agricultural sectors, enlarging the scope for interventions under the REDD framework. Progress on REDD discussions could generate significant amount of funds for important projects aimed at promoting forest conservation, while at the same time addressing development needs for farmers and rural populations.

Thus, it may be necessary to approximate REDD discussions to the agricultural development community and international organizations, that, so far, have been demonstrating higher interests in other issues related to agriculture and climate change, rather than reduction of deforestation. While the forestry community has been dealing with this issue for some time, there is space for contributions from NGOs and international development agencies that deal with agriculture and that have know-how and experience in planning and conducting development projects in rural areas. The involvement of the international agricultural community is even more necessary if one considers the higher cost effectiveness of reducing deforestation as a mitigation strategy compared to other mitigation alternatives that are under consideration (MCKINSEY & COMPANY, 2009).

Nevertheless, even though the agricultural community has demonstrated lower interest in the issue, there are examples of REDD initiatives that consider an important agricultural and rural development aspect. One example given in the paper was the Amazon Fund, the Brazilian public-private fund that is supporting projects for deforestation reduction in the Amazon Region.

Still in the early phases of planning and appraisal, two projects recently approved by the Amazon Fund demonstrate a practical example

of a REDD mechanism that, if successful, will help to solve structural rural development problems in a wide area of the Brazilian Amazon. By assisting farmers in the process of registering their properties and environmental profiles, the projects will address issues like insecurity of property rights and enforcement of the environmental law, which are backing the efficiency of current agricultural policies that farmers may benefit.

There is space for even more creative solutions, so progress in REDD negotiations should be expected, if one believes that positive economic incentives are able to promote the adoption of more sustainable agricultural practices.

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