REDD+: dream or nightmare?

A multi-level exploration of the design and implementation of REDD+ scheme

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Abstract

The name of Guatemala derives from the *náhuatl*[1] "Quahtlemallan", which means "*land of trees".* However, since 1950 total deforestation has ranged from 60,000 to 70,000 ha/year, with an accumulated loss of 2,958,826 hectares (ha) of forest[2]. Deforestation is not unique to Guatemala, and many national and international efforts have been proposed to address this environmental problem. One of them is the international scheme to reduce emissions of greenhouse gases from deforestation and forest degradation (REDD+).

REDD+, is considered as a global payment for ecosystem services scheme in which high income countries will pay low and low-middle income countries to keep their forest standing for the ecosystem service of carbon storage. Its founders hoped that REDD+ could deliver emission reductions as well as social and environmental benefits in these low and low-middle income countries, known as the "win-win-win" of the scheme. REDD+ promises a dream as stated on theory; but there are more challenges on the ground than dreamt of in REDD+ PES literature. If Guatemalan conditions on the ground do not align with REDD+'s theory, it could well turn into a nightmare. This raises three questions: (i) Is Guatemala ready to implement REDD+ successfully in order to achieve positive outcomes? (ii) If not, what will make Guatemala or any other non-annex I countries ready? And, more broadly; (iii) does REDD+ have the potential to deliver emission reductions, social benefits and environmental conservation in the context of countries like Guatemala?

Through the development of this research, I analysed the decisions made of the Conference of the Parties of the Kyoto Protocol, since REDD+ was initially proposed (2008), until the end of the first commitment period of Kyoto Protocol (2012) and the following Conference of the Parties in Warsaw (2013) in order to analyse how it had evolved. This information provided of key issues that I then identified and analysed in Latin America case studies which included 6 international REDD+ and PES scheme projects and 4 REDD+ pilot projects of Guatemala. From here I distilled assumptions of how it should be REDD+ implemented, considering PES theory and what are the necessary conditions for the achievement of the expected outcomes. This information helped to elaborate research questions that were then asked in semi-structured interviews. Because REDD+ was recently new, not many people had much information about the topic. However, I identified actors from different sectors like: (i) academia; (ii) forest communities; (iii) government; (iv) Non-government organizations; (v) International non-government organizations (INGOs) and (vi) private sector.

The Guatemalan and Latin American case studies showed varied success. In the more successful cases, projects were promoted by an independent entity or forest-dependent communities were the ones designing and

[1] Nahuatl is a group of related languages and dialects of the traditionally called "Aztecan" (Nahuan). It was the language of the Aztecs, who dominated what is now central Mexico during the Late Postclassic period of Mesoamerican chronology.

[2] URL, & IARNA. (2009). *Perfil Ambiental de Guatemala 2008-2009: las señales ambientales críticas y su relación con el desarrollo.* Guatemala: Universidad Rafael Landivar, Instituto de Agricultura, Recursos Naturales y Ambiente

implementing the scheme in a voluntarily manner. These cases achieved 'win-win-win' outcomes. In the less successful, initiatives were imposed by project developers and the outcome was rejection of the project.

Guatemala is not ready for REDD+ yet because it is using the governance as usual method, in which the Guatemalan government has the only, and final, word in decision making for processes and projects at the national level. Indeed, this approach has not just been weak at national level but also when dealing with negotiations and commitments at international level. With this approach REDD+ will be a nightmare as it is unlikely to achieve 'win-win-win' outcomes. To be ready, Guatemala needs to follow a 'governance without government' structure for REDD+, which is my empirical contribution to governance and payment for ecosystem services' theory. Building on this I offer practical recommendations for REDD+ itself. The most important is the development of the Social and Environmental Agency. Once this agency is developed it will contribute to getting Guatemala ready for REDD+; therefore REDD+ will be a dream. The participation of the agency at international levels will attract buyers and, with that, the REDD+ market will begin and that will contribute to the achievement of the social and environmental benefits. Indeed, this REDD+ market will contribute to the process of recovering the forest cover that Guatemala has lost, and once recovered Guatemala will be once again called the Land of Trees.

Key words: *REDD+, climate change, Kyoto Protocol, UNFCCC, PES schemes, governance outside government, social and environmental safeguards*

Resumen

El nombre de Guatemala se deriva del *náhualt*[3] "Quahtlemallan", que significa " *tierra de árboles'.* Sin embargo, desde 1950 la deforestación en el país ha variado entre 60,000 a 70,000 hectáreas por año, lo que ha acumulado una pérdida de total de 2,958,826 hectáreas de bosque[4]. A pesar que el problema de deforestación no es único para Guatemala, muchos esfuerzos han surgido a nivel nacional e internacional para enfrentar esta situación. Uno de ellos es el esquema internacional de reducción de emisiones por deforestación y degradación de bosques (REDD+).

REDD+, es un esquema global de pago por servicios ecosistémicos en el que países de alto ingreso económico pagan a países de bajo y medio-bajo ingreso económico, para que protegan sus bosques y mantengan sus servicios ecosistémicos; entre ellos el secuestro de carbono. La teoría de REDD+ contempla otros beneficios sociales y ambientales los cuales se consideran como adicionales al sequestro de carbono, como lo establece la teoria. REDD+ promete ser un sueño; pero hay más desafíos en los países como en Guatemala, de lo que propone la teoría de REDD+. Si las condiciones en Guatemala no son propicias con la teoría de REDD+, el esquema puede convertirse en una pesadilla. Esto nos lleva a plantear tres preguntas: (i) Está Guatemala preparada para implementar exitósamente REDD+ y alcanzar los múltiples beneficios que se espera? (ii) si no, qué necesita Guatemala para estar preparada? Y en un contexto más amplio, (iii) Tiene REDD+ el potencial de alcanzar la reducción de emisiones, beneficios sociales y la conservación del medioambiente en el contexto de países como Guatemala?

Atraves del desarrollo de este estudio, se analizaron las decisiones de las Conferencias de las Partes del Protocolo de Kyoto, básicamente desde que REDD+ fue oficialmente lanzado en 2008 hasta el final del primer periodo de compromiso del Protocolo de Kyoto (2012) y un año más para analizar su evolución (Warsaw, 2013). Esta información ayudo a identificar algunos "elementos importantes" los cuales después fueron utilizados para analizar 6 estudios de caso de Latino America que incluían proyectos piloto REDD+ y otro esquemas de PSA y 4 proyectos piloto REDD+ de Guatemala. Con esta información se logró desarrollar "suposiciones" de como REDD+ debe de ser implementado y cuales son las condiciones necesarias para lograr obtener los resultado esperados. Mediante esa información se desarrollaron preguntas de investigación las cuales fueron respondidas por medio de entrevistas semi-estructuradas. Debido a que REDD+ era relativamente nuevo en Guatemala, fue difícil encontrar un gran numero de personas que conocieran sobre el tema, sin embago se logró identificar personas de distintos sectores tales como: (i) academia; (ii) comunidades forestales; (iii) gobierno; (iv) organizaciones no gubernamentales (ONGs); (v) organizaciones no gubernamentales internacionales (IONGs); y (vi) sector privado.

[3] Náhualt es un grupo de lenguas y dialectos de la tradicionalmente llamada "Azteca" (Nahuan). Fue el lenguaje de los Aztecas, quienes dominaron lo que ahora se conoce como Mexico durante el período Postclásico Tardio de la cronología Mesoamericana.

[4] URL, & IARNA. (2009). *Perfil Ambiental de Guatemala 2008-2009: las señales ambientales críticas y su relación con el desarrollo.* Guatemala: Universidad Rafael Landivar, Instituto de Agricultura, Recursos Naturales y Ambiente

Los estudios de caso de Guatemala y Latinoamerica muestran distintas niveles de éxito. En los casos más exitosos, los proyectos fueron promovidos por entidades independientes o por comunidades forestales quienes diseñaron e implementaron el esquema aplicando el concepto de "voluntario". Estos casos alcanzaron el resultado 'gana-gana-gana'. En los casos menos exitosos, las iniciativas fueron impuestas por los encargados de los proyectos y el resultado fue el rechazo hacia el esquema REDD+ o el proyecto.

El resultado de esta investigación, demostró que Guatemala no está preparada para REDD+ si se utiliza el mismo método de gobernanza, en el que el Gobierno de Guatemala toma decisiones unilateralmente para projectos a nivel nacional y local. Este método ha demostrado su debilidad en negociaciones y/o compromisos a nivel internacional debido a la falta de inclusión de opiones y participación de otros sectores involucrados. De esta forma, REDD+ puede convertirse en una pesadilla y por ende, complicar el alcance del resultado 'gana-gana-gana'. Guatemala necesita un modelo de diseño e implementación de una estructura de 'gobernanza fuera del gobierno" para el esquema REDD+ y que contemple una amplia participación a distintos niveles. Este esquema, es mi contribución a la teoría de gobernanza y de pagos por servicios ecosistémicos. Con ello, ofrezco recomendaciones prácticas para implementar REDD+, entre ellas la más importante es el desarrollo de una Agencia Social y Ambiental (ASA). Una vez esta agencia esté desarrollada, podrá contribuir a que Guatemala pueda estar preparada para REDD+. La participación de esta agencia a nivel internacional atraerá compradores de créditos de carbono forestal lo cual facilitará la obtención de los beneficios sociales y ambientales. En ese sentido, el mercado de REDD+ puede contribuir al proceso para que Guatemala pueda recuperar su característica ancestral de "tierra de bosques".

Palabras clave: *REDD+, cambio climático, Kyoto Protocol, UNFCCC, pago por servicios ecosistémicos, gobernanza fuera de gobierno, salvaguardias sociales y ambientales.*

Dedication

To my Heavenly Father…

God

To my most precious treasure, my beautiful daughter…

Maria Fernanda Iturbide-Flores

To my marvellous parents…

Mario Augusto Iturbide Collino

and

Gladys Araminta Flores de Iturbide

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My beautiful daughter, Maria Fernanda Iturbide-Flores, who has been, is, and always will be the engine that drives my entire life. Te amo seca linda!

And, to My Heavenly Father, God, for His countless blessings in my life. This PhD is yours!

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Acronyms

AES	*Applied Energy Services*
ACOFOP	*Forest Communities Association*
AGEXPORT	*Guatemalan Association of Exporters*
BAU	*Business as usual*
BAP	*Bali Action Plan*
BFCP	*Bioclimatic Fund of Carbon Project*
BOSCOM	*Rural and Municipal Forests*
BS	*Biodiversity services*
CAPI	*Committee for Indigenous Peoples*
CCBA	*Climate Community and Biodiversity Alliance*
CDM	*Clean Development Mechanism*
CICCC	*Inter-institutional Commission on Climate Change*
CNSA	*National Committee of Environmental Safeguards*
COCODES	*Community Development Councils*
CONAP	*National Council for Protected Areas*
COP	*Conference of the Parties*
CSO	*Civil Society Organizations*
CSS	*Carbon Sequestration Service*
ENCOVI	*National Survey of Living Conditions*
ES	*Ecosystem Service*
ETS	*Emission Trading Scheme*
FDN	*Friends of Nature Foundation*
FAO	*Food and Agriculture Organization*
FAS	*Sustainable Amazons Foundation*
GAU	*Governance As Usual*
GBCCYB	*Forests, Biodiversity and Climate Change of Guatemala*
FCPF	*Forest Carbon Partnership Facility*
FDN	*Defenders of Nature Foundation*
FIP	*Forest Investment Programme*
FONAFIFO	*National Fund for Forestry Finance*
FPIC	*Free Prior and Informed Consent*
FSC	*Forest Stewardship Council*
FUNDAECO	*Ecodevelopment and Conservation Foundation*
GAO	*Grupo Agroindustrial Occidente*
GBBCCyB	*Forests, Biodiversity and Climate Change Group*
GESE	*Group of Ecosystem Services for Chiapas*
GFC	*Global Forest Coalition*
GHG	*Greenhouse Gas*
GoE	*Government of Ecuador*
Gt	*Gigatons*
IADB	*InterAmerican Development Bank*
ICCC	*Interinstitutional Commission on Climate Change*
ICDP	*Integrated Conservation and development project*

ITTO	*International Tropic Timber Organization*
INAB	*National Institute of Forests*
INE	*National Statistical Institute*
IPCC	*Intergovernmental Panel on Climate Change*
IUCN	*International Union for Conservation of Nature*
JI	*Joint Implementation*
LBS	*Landscape Beauty Services*
LFFL	*Lacandon Forests for Life*
MBR	*Maya Biosphere Reserve*
MAE	*Ministry of Environment of Ecuador*
MAGA	*Ministry of Agriculture, Livestock and Food*
MARN	*Ministry of Environment and Natural Resources*
MICCG	*Climate Change Indigenous Table of Guatemala*
MRV	*Measurement, Reporting and Verification*
MUZ	*Multiple Use Zone*
NGO	*Non-Governmental Organization*
NKMCAP	*Noel Kempff Mercado Climate Action Plan*
NSA	*Non-State Actors*
ENRD	*National Strategy for the Reduction of Deforestation*
OFC	*Rural Forest Organizations of Guatemala*
PBS	*Payments for Biodiversity Services*
PDD	*Project Design Document*
PES	*Payment for Ecosystem Services*
PECSE	*Chiapas Programme for Ecosystem Services Compensation*
PFN-G	*National Forest Programme of Guatemala*
PINFOR	*Forests Incentive Programme*
PINPEP	*Incentive Programme for Small Holders of Land, Suitable for Forests or Agroforests*
PLBS	*Payments for Landscape Beauty Services*
PNLL	*Lachúa Lagoon National Park*
PWS	*Payments for Watershed Services*
RA	*Rainforest Alliance*
RAOI	*Indigenous Organizations and Authority Network*
RED	*Reducing Emissions from Deforestation*
REDD	*Reducing Emissions from Deforestation and Forest Degradation*
REDD+	*Reduction of Emissions from Deforestation and Forest Degradation; role of conservation, sustainable forest management and enhancement of forest carbon stocks in developing countries*
R-PIN	*Project Idea Note*
R-PP	*Readiness Preparation Proposal*
SB	*Socio-Bosque*
S&EA	*Social and Environmental Agency*
SEAM	*Secretariat for the Environment*
SESA	*Strategic Environmental and Social Assessment*
SERNAP	*National Protected Areas Service*
SIGAP	*Guatemalan System of Protected Areas*
SIPECIF	*Protection System Against Forest Fires*

SMBR	*Sierra de las Minas Biosphere Reserve*
TNC	*The Nature Conservancy*
UNDRIP	*United Nations Declaration for the Rights of Indigenous Peoples*
UNFCCC	*United Nations Framework of the Convention on Climate Change*
UNREDD	*United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in developing countries.*
USIJI	*United States Initiative for joint Implementation*
VCS	*Verified Carbon Standard*
VERPA	*Verified Emissions Reduction Purchase Agreement*
WANI	*Water and Nature Initiative*
WWF	*World Wide Fund*
WS	*Watershed Services*
WCS	*World Conservation Society*
WRI	*World Resources Institute*

Chapter 1

GOVERNING THE LAND OF TREES

1.1 General context

In the Central American Mayan language, *náhuatl*[5], "Quahtlemallan" means "*land of trees".* However, modern day Guatemala is no longer a land of tress, as the country has been losing its forests in a dramatic way. 1950, according to URL & IARNA (2009), total deforestation has ranged from 60,000 and 70,000 hectares/year, with an accumulated loss of 2,958,826 hectares of forest[6]. As one of several answers to this problem of deforestation, since 2008 in Guatemala the World Bank's programme has supported the national forest authority (INAB, National Institute of Forests) by providing assistance in the implementation of strategies to prevent illegal forest activities. The implementation of this strategy developed on the basis of analytical work and technical proposals, demands for various public administration and law enforcement agencies and stakeholders , however even though with this support, deforestation activities are still the biggest pressure for the Land of Trees.

Deforestation, however, is not unique to Guatemala, as many other low- and low-middle income countries also suffer this environmental problem. In the 1990s, it was estimated that deforestation in tropical countries released around 5.8 gigatons (Gt) of greenhouse gases (GHG) per year; that is more than the total emissions from the global transport sector[7]. The release of GHG into the atmosphere is one of the causes of global warming that produces climate change that affects many countries around the world. Much national and international effort has been put into proposals to address these emissions from deforestation, one of them is an international scheme to reduce emissions of greenhouse gases from deforestation and forest degradation named REDD+.

REDD+ stands for "reducing emissions from deforestation and forest degradation; and the role of conservation, forest management and enhancement of forest carbon stocks in developing countries"[8]. It was proposed, in 2005, as a new mechanism for the Kyoto Protocol of the United Nations Framework of the Convention on Climate Change (UNFCCC). The main idea of the scheme was to develop a mechanism in which non-Annex I[9] countries could also contribute to the reduction of emissions of GHG by keeping their forests standing[10]. However, in the almost 10 years since it was proposed, REDD+ has evolved into a complex, multi-actor, multi-level and multi-outcome scheme that many non-Annex I countries have already started implementing.

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[5] Nahuatl is a group of related languages and dialects of the traditionally-called "Aztecan" (Nahuan). It was the language of the Aztecs, who dominated what is now central Mexico during the late postclassic period of Mesoamerican chronology.

[6] URL, & IARNA. (2009). *Perfil Ambiental de Guatemala 2008-2009: las señales ambientales críticas y su relación con el desarrollo.* Guatemala: Universidad Rafael Landívar, Instituto de Agricultura, Recursos Naturales y Ambiente

[7] Bluffstone, R., Robinson, E., & Guthiga, P. (2013). REDD+and community-controlled forests in low-income countries: Any hope for a linkage? *Ecological Economics, 87*(0), 43-52.

[8] Now on refer as non-Annex I countries according to the UNFCCC

[9] Non-Annex I countries refer to those signatory countries of the Kyoto Protocol which do not have binding emission reduction targets.

[10] Visseren-Hamakers, I. J., Gupta, A., Herold, M., Peña-Claros, M., & Vijge, M. J. (2012). Will REDD+ work? The need for interdisciplinary research to address key challenges. *Current opinion in Environmental Sustainability, 4*, 590-596. (p.590)

REDD+ is seen as a combination of global payments for environmental services (PES)[11] with integrated conservation and development project (ICDP)[12] ideas. It is also considered to be a mitigation strategy[13] and a 'new climate governance experiment'[14]. However, scholars like Corbera et al, (2009) agree that placing excessive enthusiasm on an international climate policy framework like REDD+ to reduce the emissions from deforestation and forest degradation would, in the short term, be misguided, as governance issues remain the central challenge that should be addressed and reflected upon[15]. This is especially true in countries like Guatemala.

It is important to mention that even though this research has emphasize that REDD+ is seen as a global PES scheme, and that most of the theory used and analysed is PES related, it does not mean that PES schemes theory is a solid ground, as markets are not perfect. There are many doubts about how effective are PES schemes, and if they really achieve social, beneficial and environmental benefits. However, I strategically decided to use this theory as the main principles of REDD+ apply to Wunder definition of PES scheme, and as Brower[i] has stated, if an interested group meets all the criteria, then it will advocate for what it wants, be it financial, social or environmental, and for REDD+'s case, applies to the three of them.

The main goal of REDD+ is the reduction of emissions from deforestation and forest degradation. However, REDD+ is also seen as an opportunity for forest-dependent communities to obtain economic and social benefits, as well as from the conservation of biodiversity and the environment. That is to say and according to literature, REDD+ is expected to be a 'win-win-win' scheme. Discussions at the international level have also concluded that the economic incentives could contribute to poverty reduction, or alleviation, as well as social development. However, there is still uncertainty about how REDD+ could achieve the claimed win-win-win outcomes[16] that theory has constantly supported.

Many agencies, organizations, research centres and scholars at the international level have proposed ideas, mechanisms and strategies of how REDD+ should be implemented. All these could be compared to the play of William Shakespeare, when Hamlet tells Horatio "*There are more things in heaven and earth, Horatio, than are dreamt of in your philosophy*". In other words, it has been claimed that REDD+ promises a dream, but the reality is that there is more involved on the ground, than dreamt of in REDD+ philosophy.

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[11] Sunderlin, W., & Sillis, E. (2012). REDD+ projects as a hybrid of old and new forest conservation approaches. In A. Angelsen, M. Brockhaus, W. Sunderlin & L. Verchot (Eds.), *Analysing REDD+. Challenges and choices* (pp. 177-192). Bogor, Indonesia: CIFOR. (p.177)

[12] For the purpose of the present research, REDD+ is going to be analysed just as a PES scheme.

[13] Phelps, J., Webb, E., & Agrawal, A. (2010). Does REDD+ threaten to recentralize forest governance? *Science, 328*, 312-313. Policy Forum. (p.312)

[14] As cited by Lederer, M. (2012). REDD+ governance. *WIREs Clim Change, 3*, 107-113 (p107)

[15] Corbera, E., Estrada, M., & Brown, K. (2009). Reducing greenhouse gas emissions from deforestation and forest degradation in developing countries: revisiting the assumptions. *Climatic Change, 100*(3-4), 355-388.

[16] For the purpose of the present research and with the intention to have a clear picture of a complex scheme without getting lost in its technical 'jargon', I will consider these co-benefits (poverty reduction/alleviation and social/rural development) as part of the social benefits already described in the 'win-win-win' approach of REDD+.

This thesis suggests that Guatemala, as many other non-Annex I countries, are not ready for REDD+ at present. If Guatemala's standard centrist, top-down approach to change is used, REDD+ will more likely be a nightmare than a dream. Findings have also been put forward that in the actual Guatemalan context, REDD+ could not deliver the claimed 'win-win-win' outcomes. The thesis suggests a way to get the Land of Trees ready for REDD+, and it proposes a way forward to push REDD+ from a nightmare to dream through the establishment of an independent structure, as shown in some dream PES projects.

The following section will analyse the rationale and significance of this research.

1.2 Rationale, significance and scope of this research

When the idea of forest carbon projects was launched at international level, Guatemala started with early actions. In 2010, Guatemala successfully sold a forest carbon storage project at international level for a period of 20 years. Even though it was a private rubber plantation project, it provided of good experience for Guatemalan future forest carbon projects. Meanwhile, REDD+ was still developing and it was shown as an opportunity to contribute to the international efforts to reduce the emissions from deforestation and forest degradation, and at the same time a way to provide of social and environmental benefits to forest dependent communities around the world. However, the implementation of REDD+ has turned into a complex process and there are doubts about the achievement of the claimed social and environmental benefits.

In addition to the previous doubts, it is also important to consider that markets are not perfect. REDD+ literature and PES theory has suggested that: 'Annex I countries will pay non-Annex I countries to keep their forest standing in order to provide the ecosystem services of carbon storage; and this payment will bring social and environmental benefits'. However, markets are not perfect: carbon prices have been fluctuating, transaction's cost are not always affordable for forest dependent communities, economic benefits are insufficient to provide social development and many others uncertainties that may suggest that PES theory is not a solid foundation. Nevertheless, is the theory under which REDD+ scheme has grown.

In spite of this, theory has shown that the implementation of REDD+ requires of certain conditions in order to achieve these benefits (dream project). However, if Guatemalan conditions as the conditions of many other non-Annex I countries on the ground do not align with REDD+'s philosophy, it could well turn into a nightmare. This raises three main research questions: (I) Is Guatemala ready to implement REDD+ successfully and achieve the claimed outcomes? (ii) If not, what will make Guatemala ready? And; (iii) More broadly, does REDD+ have the potential to deliver emission reductions, social benefits and environmental conservation in the context of countries like Guatemala?

In order to answer these research questions, a critical analysis and development of the research revealed other related questions: (I) What are the key issues identified through the emergence and evolution of REDD+"?; (ii) What are the processes for the design and implementation of the scheme?; (iii) What actors are involved and the

participation, or not, of forest-dependent communities; and (iv) What is the context of each country? Lederer (2012) stated that "REDD+ is not just about keeping carbon in the forests, but about how the world's forests are governed[17]". The governance scheme of forests under REDD+ is the central point of analysis of this research. So the first step for REDD+ in non-Annex I countries is the development of a new "governance outside government" structure because the existing ones have been proven wrong.

Because REDD+ has many technical, social, economic, environmental, political and institutional topics that are important to analyse and consider for its success, it is important to define the scope of this research. The rationale explained that according to theory, REDD+ has been sold as a 'win-win-win' scheme and that these benefits depend on how the scheme is designed and implemented. Because of that, the scope of this research is centred at the design and implementation mechanisms at national and local level and how through these mechanisms, projects could possible achieve some of the many outcomes it has claimed it could deliver, taking into account that markets in PES schemes are not perfect. This research will not deeply analyse aspects like carbon price, benefit sharing processes, MRV, consultation processes, transactions costs and many others topics that could be consider for future research. However, this research has briefly consider these aspects as part of the assumptions that are needed for REDD+'s successful implementation.

1.2.1 Why Guatemala?

Many non-Annex I countries are hastening implement REDD+ pilot projects despite being unprepared. At a national level, many of these countries are in the readiness phase[18] and have applied for funds from international organizations like the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in developing countries (UNREDD Programme), the World Bank, and the Forest Carbon Partnership Facility (FCPF) to start REDD+ activities, Guatemala is a good example of a non-Annex I country.

At the local level, project developers are not considering how feasible the outcomes are, or whether forest-dependent communities are ready, capable and financially prepared to do what it is required. However, even if funds are available for the readiness phase and for the implementation of REDD+ pilot projects, there is still uncertainty about the country's capacity, knowledge and understanding to implement REDD+ and to achieve the claimed outcomes. Furthermore, many countries like Guatemala are implementing REDD+ using the same centrist, top-down approach that had been used for the implementation of other national projects that have failed. However, the difference between this scheme and national projects lies in REDD+'s international scope. This scope could bring advantages, or disadvantages, to forest-dependent communities, depending on how REDD+ is designed and implemented.

[17] Lederer, M. (2012). REDD+ governance. *WIREs Clim Change, 3*, 107-113. (p. 107)
[18] When starting the research in 2010

This research will provide new input into how attainable REDD+ outcomes are, not just for Guatemala, but for many others countries with the same context. Further, it will propose an innovative multi-level 'governance outside government' structure that could enhance the chances of benefits being delivered if REDD+ is officially approved.

Even though the research considers the 'win-win-win outcomes' as the theory has shown, it will be assumed that in conserving the forests' standing that the reduction of emissions will be achieved. This research does not provide a deep analysis on the technical aspects of the measuring, reporting and verifying forest carbon credits or forest carbon storage and many other topics that involves REDD+ mechanism; but will deeply and critically analyse the social and environmental benefits that REDD+ has claimed it can deliver. One thing that cannot be ignored is, however, whether the pilot projects involve substituting natural forests with forest plantations as this would be considered as a negative practice because of the significant ecological and biodiversity consequences.

1.3 Reseach methods

The research consisted of three phases. The first phase involved the analysis of reports of pilot projects, final decisions of the UNFCCC negotiations about REDD+, and also documents and reports written against the REDD+ scheme. The analysis of these documents and decisions helped identify 'key issues' that were then integrated into a more in-depth analysis of the theory of payment for ecosystems services (PES) schemes. Distilling these key issues helped formulate more research questions which provided a framework for undertaking the empirical research. From this information the first three chapters were written.

In the second phase, I used pilot projects to assess my framework. Because several REDD+ pilot projects around the world are still in the process of design, development and implementation, other case studies such as PES schemes in Latin America were selected with the idea to assess how and what have these projects done, or not done, to achieve the outcomes they have achieved.These case studies were: (i) Bolivia- Noel Kempff Mercado Action Plan; (ii) Brazil- Bolsa Floresta; (iii) Costa Rica- FONAFIFO; (iv) Ecuador- Socio Bosque; (v) Mexico - The Scolel Te project; and (vi) Peru- Madre de Dios. These PES schemes were selected according to the years of implementation (around 10 years of implementation). Until now many organizations have been involved in designing and applying REDD+ (bi-lateral, multi-lateral, World Bank and UN funding programmes[19], and others). This research selected REDD+ pilot projects (case studies) from among these organizations in the region of Latin America.

In addition to these projects, I also analysed four REDD+ pilot projects from Guatemala: (vii) GuateCarbon; (viii) Fundalachua; (ix) Lacandon - Forests for Life; and (x) FUNDAECO. The analysis of these schemes comprised the second phase of the research. The analysis of documentation about different REDD+ pilot projects and other PES schemes in order to understand how countries are implementing their projects. The goal is not to be comprehensive,

[19] McDermott, C. L., Coad, L., Helfgott, A., & Schroeder, H. (2012). Operationalizing social safeguards in REDD+: actors, interests and ideas. *Environmental Science & Policy, 21*(0), 63-72. (p.65)

but rather to assess the actors, processes and context in which these projects have been developed and the outcomes and co-benefits they have achieved. From the previous analysis, I developed research questions that guided the development of my research through the following phase.

The third phase consisted of the development of semi-structured interviews with different actors from the following sectors: (i) academia; (ii) forest community organizations; (iii) government; (iv) non-governmental organizations; (v) international non-governmental organizations: and (vi) the private sector. Because the topic is relatively new, few people have full knowledge about REDD+ or forest carbon credits or are completely involved in the topic. However, the persons selected to be interviewed were selected through the method of "Snowball sampling". This facilitated the process as most of the persons involved in the topic were interviewed (25 persons from the specified sectors). Because the number of interviewees was small, it is not intended to produce statistically significant results. The persons interviewed were asked to provide their opinion from a professional or organizational point of view. Interviews were audio-recorded transcribed and de-identified. A content and thematic analysis was conducted using NVivo10. Throughout the results, each sector was indicated by letters as per Table 1-1.

Table 1-1 Identification of interviewees by selected sectors

Sector	N. interviewees	Identification within research
Academia	2	A
Forest communities	4	B
Government	6	C
Non-Governmental Organization (NGOs)	4	D
International Non-Governmental Organizations (INGOs)	6	E
Private sector	3	F

Through the analysis of these interviews, PES schemes and REDD+ initiatives, I was able to answer not only the main research questions, but also the questions developed in the framework chapter that guided me in discussing and providing conclusions about the research.

1.4 Description of chapters

This thesis is organized as follow:

Chapter 2 analyses the emergence and evolution of REDD+ as it is important to understand how the idea was initially proposed during the Conference of the Parties (COP) of the UNFCCC in Montreal 2005 and how it has evolved until the end of the first commitment period of Kyoto Protocol, and will briefly analyse the decisions of the following COP held in Warsaw (2013). The aim of the chapter is the identification of key issues that each COP has left that has shaped the structure of the actual REDD+'s framework. The identified key issues are: (i) the commodification of nature; (ii) land tenure and forest communities' rights; (iii) the willingness to participate; (iv) effective consultation processes; (v) political willingness; (vi) economic viability; and (vii) institutional capacity. In

addition, there is also the increased participation of actors from different sectors and with different interests, which also influences its evolution.

Chapter 3 critically analyses REDD+ under the theory of PES schemes. The analyses focus on the assumptions that scholars have made in relation to PES schemes that now are applying for REDD+. Based on this theory, some of REDD+'s assumptions were distilled.

Chapter 4 critically analyses Latin American PES case studies and REDD+ pilot projects in order to understand how they have addressed the assumptions presented in the previous chapter. This chapter will also identify 'key factors' affecting the outcomes of these initiatives and relate them to the already identified 'key issues' identified in Chapters 2 and 3. All this, together, will provide a good basis for determining what the essential conditions are to enhance the likelihood of positive outcomes being produced.

Chapter 5 is based on the preceding chapters and presents the necessary conditions and elements at national and local levels for the design and implementation of REDD+ and the successful attainment of social and environmental benefits in countries like Guatemala. Likewise, the chapter proposes the necessary conditions at the international level that are necessary to activate the international regulatory market of forest carbon credits under the framework of the post-Kyoto Protocol. Because the presence of all these conditions and elements at these levels are uncommon for non-Annex I countries, I propose the creation of an independent entity that will provide the necessary 'governance without government' structure. This entity, which I have identified as the Social and Environmental Agency (S&EA), is the proposed answer for the REDD+ scheme to achieve socially and environmentally positive outcomes that will have involve participation at the local, national and international levels. The ideas in this chapter helped raise 19 research questions. Here, I will also present the research methods used in the development of the research.

Chapter 6 analyses the design and implementation of four REDD+ pilot projects in the context of Guatemala and assesses how the elements of design for REDD+, and the local conditions for the implementation of the scheme, were present or not present in these projects. This examination will guide me to determine what the readiness of these projects is and then forecast the possible outcomes. Through this, I will be able to answer some of the research questions raised in Chapter 5.

Chapter 7 describes the findings at the national level about the proposed elements and conditions in Guatemala, and answers some of the questions developed in the framework chapter. In the same way, this chapter will present the findings about the international conditions considered necessary for the implementation of REDD+ in non-Annex I countries, based on the discussions and final decisions from the last COPs in Doha (2012) and Warsaw (2013).

Chapter 8 is the concluding chapter where I will answer the main research questions and discuss the implications of the findings in relation to the theory of PES schemes and of REDD+ and, possibly, for the practice of other PES schemes. This chapter will also present recommendations and propose ideas for further research.

Chapter 2

EMERGENCE AND EVOLUTION OF REDD+

2.1 Introduction

As described by Angelsen (2009), REDD+ was proposed as a mechanism in which non-Annex I countries could also contribute to the international efforts under the Kyoto Protocol. The original idea was simple: to reduce the effects of climate change by creating economic incentives for non-Annex I countries to keep their forests standing[20]. However, the implementation of the REDD+ scheme has alarmed many groups especially those depending on forest resources for their survival like forest-dependent communities and groups around the world who lack formal land tenure rights and who are marginalized because of their low educational levels and their cultural and traditional knowledge in the use of forest resources. Because some these forest-dependent communities are sceptical about the REDD+ scheme, the UNFCCC adopted social and environmental safeguards in which countries agree to respect these groups' rights and open their participation in REDD+ processes. These, however, are not the only issues that are constantly being discussed.

All through the evolution of REDD+, key issues have been under debate and negotiation. Many of these related to technicalities of carbon accounting (leakage, additionality, permanence, monitoring, reporting and verifying systems (MRV)), and others related to implementation issues, national capacities of non-Annex I countries and governance structures. However, for the purposes of this research, the key issues considered are those linked with the implementation of REDD+ to achieve the expected social and environmental outcomes at the national and local level. Even though there are many topics that are closely related to the achievement of these outcomes, specially emphasis is been made in the design and implementing mechanisms and actors. These key issues are related to: (i) social-environmental issues mainly associated with forest-dependent communities, their willingness to participate, the respect of their rights and many other concerns that were recognized in the Cancun Agreement as well as social and environmental safeguards; (ii) the financing mechanism of REDD+; (iii) political and institutional capacity of non-Annex I countries; and (iv) processes for design and implementation. In addition, there are concerns related to the control and power of the different actors from different levels and with different interests. All these issues have raised concern at the international level that non-Annex I countries needed firm governance structures before implementing REDD+ activities.

Considering this, the aim of this chapter is to analyse all the negotiations and discussions from the emergence of REDD+ until the end of the first commitment period of the Kyoto Protocol (2012). From here, key issues were identified in every COP that helps deepen the analysis of evolution of REDD+ in order to understand the potential of the scheme to deliver 'win-win-win' outcomes. These key issues relate to: (i) strengthening forest governance

[20] Visseren-Hamakers, I. J., Gupta, A., Herold, M., Peña-Claros, M., & Vijge, M. J. (2012). Will REDD+ work? The need for interdisciplinary research to address key challenges. *Current opinion in Environmental Sustainability, 4*, 590-596. (p.590)

structures in non-Annex I countries, (ii) respecting forest-dependent communities' rights; (iii) promoting inclusive participation processes; (iv) delivering social benefits for forest communities; and (v) distributing benefits transparently and equitably. These key issues were incorporated in the Social and Environmental Safeguards of the Cancun Agreements. However, the way they are incorporated in each country is each country's responsibility.

The present chapter is organized as follows: Section 2 studies the emergence and evolution of REDD+ as part of the UNFCCC where key findings have been identified. Section 3 examines the social and environmental outcomes that are expected from REDD+ pilot projects. Section 4 identifies the actors involved in REDD+ and the levels at which they are 'lobbying' for their interests. Section 5 analyses the processes in the design and implementation of REDD+ scheme and Section 6 summarizes the main findings of the chapter.

2.2 Emergence and evolution of REDD+

The Kyoto Protocol and its first commitment period, which finished in 2012, set quantitative emission limitations for Annex I countries only because they voluntarily acknowledged that their countries had been responsible for the greenhouse effect[21]. However, deforestation and forest degradation activities from non-Annex I countries, also contributed to the emission of GHG into the atmosphere. Considering this, the idea proposed was of a mechanism in which non-Annex I countries could also contribute to reduce the effects of climate change. This was proposed in 2005, during the COP11 of the UNFCCC that was held in Montreal Canada. The first idea was known as RED (reducing emissions from deforestation) and contained realistic activities for non-Annex I countries, as the other three GHG reductions mechanisms[22] approved within the Kyoto Protocol have been highly criticised because of the high transaction costs involved in validating and registering projects have put most non-Annex I countries at a severe disadvantage in accessing carbon markets[23]. The idea was accepted and further analysis before its implementation was required.

During COP13 in Bali, Indonesia (2007), RED evolved into REDD+ by including forest degradation[24] and other activities that converged in the (+) which are: "the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in non-Annex I countries"[25]. The final outcome of the Conference was the non-legally binding document, the Bali Action Plan (BAP), in which Decision 2/CP.13 called for "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 forest and enhancement of forest

[21] Dutschke, M. (2009). The climate stabilization fund. Global auctioning of Emission Allowances to help forests and people. In W. Filho & F. Mannke (Eds.), *Interdisciplinary aspects of climate change* (pp. 103-120). Frankfurt and New York: Peter Lang Scientific Publishers (p.105)

[22] The reduction mechanisms within Kyoto Protocol are: the Clean Development Mechanism (CDM), Emission Trading Scheme (ETS) and Joint Implementation (JI))

[23] Hall, A. (2012). *Forests and climate change. The Social dimensions of REDD in Latin America*. Cheltenham, UK: Edward Elgar. (p.31)

[24] According to WBI (2011 p. 18) forest degradation refers to the reductions in forest quality, particularly with respect to its capacity to store carbon. Specifics for a single widely-accepted definition of forest degradation have not yet been generated.

[25] Gregersen, H., El-Lakany, H., Bailey, L., & White, A. (2011). *The Greener side of REDD+. Lessons for REDD+ from countries where forest area is increasing.* Washington, D.C: Rights and Resources Initiative.

carbon stocks in developing countries." However, these policy approaches have been interpreted by many to mean compensation provided by Annex I to non-Annex I countries for achieving measurable reductions in forestry emissions[26]. This interpretation has been rejected by some non-Annex I countries as they believe that Annex I countries should also make efforts to reduce their emissions and comply with their reduction commitments within the Kyoto Protocol[27]. Since then, the discussion about an offsetting mechanism has been rejected by some countries, like those in G77 and China[28]. Additionally, the BAP encouraged the parties to explore a range of actions, identify options and undertake efforts to address the drivers of deforestation, and to recognize needs, cultural knowledge and traditions of forest-dependent communities when actions are taken to reduce emissions from deforestation and forest degradation[29].

From BAP on, the needs of forest-dependent communities came to the fore. Especially important was land, carbon rights; and the forest-dependent communities' participation in the processes of design and implementation, emerged. Forest-dependent communities have argued that within the Clean Development Mechanisms (CDM), Annex I countries "have dismissed the notion that the value of forests cannot be reduced to the monetary value of their carbon stocks (as a commodity), and stressed that for their peoples the non-monetary cultural and spiritual values of their forest are of utmost importance and must be respected[30]". These values are what forest-dependent communities are fighting for in relation to setting an economic value on their forest resources. At the same time, civil society groups have contended that commoditization of the forest sector would lead to a land use change from natural forests into plantations[31].

After COP14 in Ponzan, Poland (2008), there were new opportunities for REDD+, as it was launched the United Nations Collaborative Programme on Reducing Emissions from Deforestation and Forest Degradation in developing countries, known as the UNREDD Programme[32] with the aim of assisting forested non-Annex I countries to build capacity to reduce emissions and to participate in future REDD+ mechanisms[33]. The launch of this programme and others from the World Bank, like the Forest Carbon Partnership Facility (FCPF) and Forest Investment Programme (FIP), increased the participation of new actors in the development and implementation of REDD+ schemes. By this time, several non-Annex I countries around the world had already started REDD+ pilot projects, even though there was not yet an agreed international framework.

[26] Angelsen, A., & McNeill, D. (2012). The evolution of REDD+. In A. Angelsen, M. Brockhaus, W. Sunderlin & L. Verchot (Eds.), *Analysing REDD+. Challenges and choices.* Bogor, Indonesia: Centre for International Forestry Research -CIFOR. (p.34)
[27] Hall, R. (2010). REDD: The realities in black and white. Amsterdam: Friends of the Earth International. (p.5)
[28] Philippines on behalf of the G77 and China in FCCC/AWGLCA/2008/MISC.5/Add.2 (Part II), (p. 48)
[29] UN-REDD. (2011a). *Support to National REDD+ Action. Global Programme Framework Document 2011-2015*. Viet Nam: UN-REDD Programme.(p.9)
[30] Griffiths, T. (2007). *Seeing RED? Avoided deforestation and the rights of indigenous peoples and local communities*: Forest Peoples Programme. (p.17)
[31] Lederer, M. (2012). REDD+ governance. *WIREs Clim Change, 3*, 107-113. (p.109)
[32] The UNREDD Programme builds on the convening role and technical expertise of the Food and Agriculture Organization (FAO), the United Nations Development Programme (UNDP) and the United Nations Environment Programme (UNEP).
[33] UN-REDD. (2011). *2010 Year in Review*: UN-REDD Programme.(p.1)

During COP15 in Copenhagen, in 2009, REDD+ gained important momentum through a COP decision (FCCC/CP/2009/11/Add.1) in the non-legally binding final document of the meeting - the 'Copenhagen Accord' - that set important resolutions like Decision 4/CP.15 that stated[34]: "the development of 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 non-Annex I countries." This decision promoted the use of guidelines for GHG reporting standards from the Intergovernmental Panel on Climate Change (IPCC) for forest carbon measurement, reporting and verification (MRV) within REDD+ pilot projects. In addition, other technicalities were under discussion, such as reference levels, permanence and additionality of projects. The Copenhagen Accord called for Annex I countries to provide of "additional" climate change financing to non-Annex I countries[35]. From here, the issue of financing REDD+ was on the table, as it was thought that the cost of storing carbon in forests was lower in comparison to other mitigation options[36].

Until 2009 the evolution of REDD+ has been evident; however, at this stage, negotiations seemed never ending and the achievement of consensus far from reality. The presence of new actors from FCPF and FIP, UNREDD programmes, together with actors from different sectors like agriculture and development, brought new concerns about control and power over forest resources' rights from different levels (international, national and local). Because of this, the issue about the need for solid forest governance structures in non-Annex I countries was once more highlighted, because the weak statehoods in these countries have hindered the development of any economic alternative for those whose homes and livelihoods are in forest resources[37].

During COP16 in Cancun, Mexico (2010) the "Cancun Agreement" was the final outcome, reaching agreement on developing clear guidance on the activities, principles and safeguards underlying REDD+ (Decision 1/ CP.16):

- *Mitigation activities:* the agreement recognizes five REDD+ activities: (i) reducing emissions from deforestation; (ii) reducing emissions from forest degradation; (iii) conservation of forest carbon stocks; (iv) sustainable management of forests; and (v) enhancement of forest carbon stocks.
- *REDD+ principles:* activities should follow certain principles, such as being country-driven and result-based; being consistent with development goals, environmental integrity and adaptation needs; being supported by adequate financial and technological support; and promoting the sustainable management of forests.
- *Phases:* The agreement outlines a phased approach to the implementation of the REDD+ mechanism, form development of national strategies or actions, plans, policies and measures, and capacity building (Phase 1 is also called the 'readiness phase'); policy implementation (Phase 2) and result-based actions to reduce emissions (Phase 3). The three phases of REDD+ are not strictly sequential and activities in more than one phase are likely to be undertaken in parallel. Each country has to determine its own course of action, for

[34] UNFCCC, (2009a.) Decision 4 (4/CP.15) Available from: http://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf. (Accessed October 2012)
[35] Ballesteros, A., & Moncel, R. (2010). Additionality of Climate Finance: World Resources Institute (WRI). (p.1)
[36] Lederer, M. (2012). REDD+ governance. *WIREs Clim Change, 3*, 107-113. (p.108)
[37] Lederer, M. (2012). REDD+ governance. *WIREs Clim Change, 3*, 107-113. (p.111)

example, by entering the phases at different times or completing each phase according to its own schedule[38]. It is important to mention that from Phase 1, carbon verifiers need to approve (verify) the projects which involves high amounts of money and transactions costs than many countries could not afford (Figure 2-1).

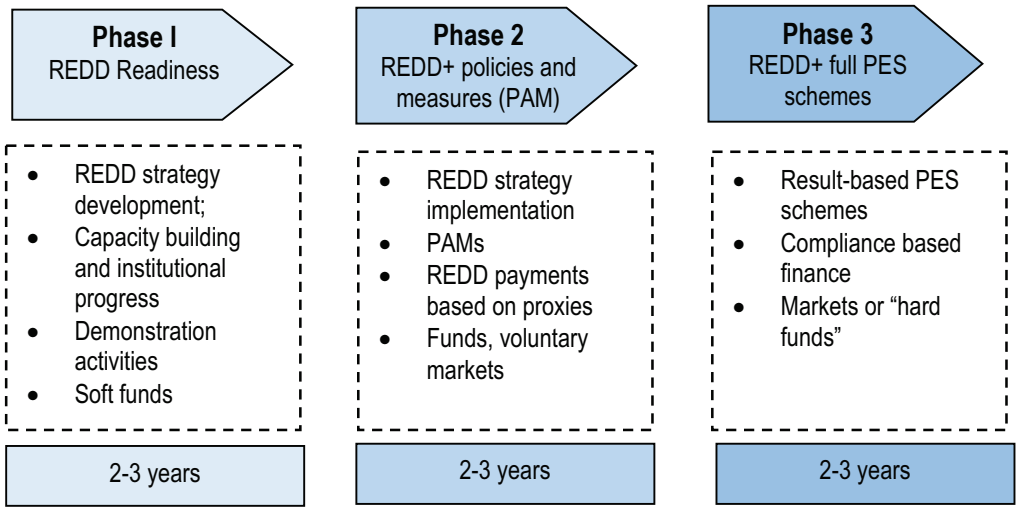

Figure 2-1 REDD+ phases

Source: Henrik et al., (2011)

- *Safeguards:* The agreement lists seven safeguards in accordance with what REDD+ activities are to be undertaken and which are to be promoted and supported. The safeguards concerns are:
  - *(i)* Actions complement, or are consistent with, the objectives of national forest programmes and the relevant international conventions and agreements;
  - *(ii)* Have transparent and effective national forest governance structures, taking into account national legislation and sovereignty;
  - *(iii)* Respect for knowledge and rights of indigenous people and local communities, by taking into account relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the UN Declaration on the Rights of Indigenous Peoples;
  - *(iv)* Have full and effective participation of relevant stakeholders, in particular, indigenous people and local communities;
  - *(v)* Actions are consistent with the conservation of natural forests and biological diversity, ensuring that actions are not used for the conversion of natural forests to other uses but are, instead, used to incentivise the protection and conservation of natural forests and their ecosystem services, and to enhance other social benefits;
  - *(vi)* Actions to address the risk of reversals; and

[38] CIF, FCPF, & UN-REDD. (2010). *Enhancing Cooperation and Coherence among multilateral REDD+ institutions to support REDD+ activities*. Washington: Climate Investment Fund, Forest Carbon Partnership Facility, UN-REDD Programme. (p.10)

(vii) Actions to reduce the displacement of emissions.

The Cancun Agreement was a big step towards REDD+'s future; the addition of social and environmental safeguards into the agreement brought new hope for forest-dependent communities which by then were represented in the conference. It was stressed in the safeguards, that forest governance was essential for REDD+'s success[39], as many problems of corruption and carbon scams had started to become obvious[40] in several non-Annex I countries; such as the presence of some 'carbon cowboys' in countries like Papua New Guinea[41], Peru[42], Brazil and Guatemala. Moreover, the agreement also highlighted the importance of policy approaches and positive incentives including guidance on activities and the social and environmental safeguards that needed to be promoted and supported[43]. At this point, concern about whether REDD+ should be market-based or fund-based and whether offsets should be generated and traded within Annex I countries emerged during negotiations[44].

COP 17, held in Durban, South Africa (2011), proved to be a game-changing conference for climate negotiations[45] with the development of the "Durban Platform for Enhanced Action". This document stated that: "Parties also decide to launch a process to develop a protocol, another legal instrument or and agreed outcome with legal force under the Convention applicable to all Parties[46]". During this COP, the debate on REDD+ covered issues of finance and safeguards; both support and opposition to a market mechanism also became stronger, alongside the weakening of rules related to social and environmental integrity[47]. The conference ended with weak decisions being made about social and environmental safeguards[48]; however, it reached an important decision that financing REDD+ could engage the private sector. The parties agreed that "appropriate market-based approaches could be developed by the COP to support result-based actions"[49] subject to full respect for all safeguards. It was also noted that non-market based approaches could also be developed[50]. The Durban Agreement put an emphasis on national sovereignty[51], but the hope of a unified global system for compensating nations that successfully reduced their GHG emissions from deforestation and forest degradation was put on hold. Apparently, efforts to negotiate a new climate instrument within UNFCCC did not generate any sort of binding agreement to further reduce emissions until 2020[52].

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[39] ibid (p.10)
[40] Bofin, P., Du Preez, M.-L., Standing, A., & Williams, A. (2011). REDD Integrity. Addressing governance and corruption challenges in schemes for Reducing Emissions from Deforestation and Forest Degradation (REDD) *U4Report 2011. N.1*: U4 Anti-Corruption Resources Centre Chr. Michelsen Institute. (p.10)
[41] Lederer, M. (2012). REDD+ governance. *WIREs Clim Change, 3*, 107-113. (p.109)
[42] http://www.redd-monitor.org/?s=carbon+cowboy. Accessed 24.01.2014
[43] UN-REDD. (2011). *2010 Year in Review*: UN-REDD Programme.(p.2)
[44] Lederer, M. (2012). REDD+ governance. *WIREs Clim Change, 3*, 107-113. (p.110)
[45] Carpenter, C. (2012). *Taking Stock of Durban: Review of key outcomes and the road ahead.*: UNDP. (p.27)
[46] http://unfccc.int/files/meetings/durban_nov_2011/decisions/application/pdf/cop17_durbanplatform.pdf (Accessed October 2012)
[47] Karsenty, A., Tulyasuwan, N., & De-Blass, D. (2012). Financing options to support REDD+ activities. Based on a review of the literature. Paris, France: CIRAD. (p.23)
[48] http://blog.cifor.org/6507/durban-talks-both-good-and-bad-for-redd-says-expert/. (Accessed August 9th, 2013)
[49] UNFCCC. Decision 2/CP.17.Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention, Paragraph 66.
[50] Karsenty, A., Tulyasuwan, N., & De-Blass, D. (2012). Financing options to support REDD+ activities. Based on a review of the literature. Paris, France: CIRAD. (p.23)
[51] ibid (p.23)
[52] http://unfccc.int/files/meetings/durban_nov_2011/decisions/application/pdf/cop17_durbanplatform.pdf (Accessed October 2012)

During COP 17, the parties agreed to establish a process to develop a legal instrument or a legal outcome under the convention valid to all parties, which has to be ready no later than 2015 for its adoption and for it to come into effect and be implemented from 2020[53]. In other words, this timeframe became the time horizon for the full implementation of REDD+[54].

Since COP 17, negotiations of REDD+ in some issues like social and environmental safeguards, have been weakening and COP 18 in Doha, Dakar (2012), showed this with a weak and superficial draft text on REDD+, especially about the safeguards to protect forest communities and biodiversity[55]. The draft reduced requirements from collecting data and measuring impacts of REDD+ to just reporting how developers implement safeguard measures[56] (FCCC/SBSRA/2011/L.25/Add.1).

COP 19, held in November in 2013 in Warsaw, Poland adopted 7 decisions of the Warsaw Framework for REDD+. Some of the decisions were related to work programme on result-based finance to progress the full implementation of the activities referred to in the Cancun Agreements (9/CP.19). Also the coordination of support for the implementation of activities in relation to the mitigation actions in the forest sector by developing countries, including institutional arrangements (10/CP.19), modalities for national forest monitoring system (11/CP.19), the timing and the frequency of presentation of the summary of information on how all the safeguards are being addressed and respected and addressing the drivers of deforestation and forest degradation(15/CP.19) to mention but a few.

In all these Conferences, the participation of different actors from different sectors has been increasing and diversifying during the UNFCCC negotiations. The forest-dependent communities present have been the most active and harsh about REDD+, as they represent all the people who depend on forest resources for their survival and fear that REDD+ could jeopardize their rights. Because of the presence of these groups, is that key issues about social and environmental safeguards were proposed and accepted in the non-legally binding Cancun Agreement. Since then, these safeguards have been included as conditions or requirements for different processes. For example, the UNFCCC developed a broad safeguards guideline for countries to use in their REDD+ national strategies; individual REDD+ pilot projects have established more detailed safeguards policies within their projects[57]. The FCPF developed its own safeguards policy which entails participating countries to complete a Strategic Environmental and Social Assessment (SESA); the UNREDD Programme has developed social and environmental principles and criteria; and the Climate Community and Biodiversity Alliance (CCBA), a standard used to register forest carbon credits, has incorporated biodiversity and social concerns in its standards[58]. This

[53] Karsenty, A., Tulyasuwan, N., & De-Blass, D. (2012). Financing options to support REDD+ activities. Based on a review of the literature. Paris, France: CIRAD. (p.23)
[54] ibid (p.23)
[55] http://blog.cifor.org/5655/redd-draft-texts-postpone-financing-decision-to-2012-water-down-safeguards/ (accessed August 9th, 2013)
[56] ibid (accessed August 9th, 2013)
[57] Visseren-Hamakers, I. J., Gupta, A., Herold, M., Peña-Claros, M., & Vijge, M. J. (2012). Will REDD+ work? The need for interdisciplinary research to address key challenges. *Current opinion in Environmental Sustainability, 4*(6), 590-596. (p.593)
[58] Visseren-Hamakers, I. J., Gupta, A., Herold, M., Peña-Claros, M., & Vijge, M. J. (2012). Will REDD+ work? The need for interdisciplinary research to address key challenges. *Current opinion in Environmental Sustainability, 4*(6), 590-596. (p.593)

highlights the important dynamics revolving around social and environmental issues in the REDD+ scheme. However, even if these processes have included these safeguards, it is important to ask: who can guarantee the implementation and application of social and environmental safeguards in order to obtain the 'win-win-win' outcomes? Who are the key players responsible for REDD+'s design and implementation? And, in the process of implementation, who stands to gain and to lose form REDD+?

REDD+ scheme has three levels of negotiation and, therefore three levels of expected outcomes:

(i) The international level is emphasised in the reduction of GHG from deforestation and forest degradation that influences climate change and, consequently, affects many countries around the world. In that regard, special attention has been given to the technicalities of REDD+ (the right level at which reference levels for REDD+ should be set and monitor, report and verify (MVR) systems, additionality, permanence, leakage) in order to have a positive net outcome as a climate change mitigation strategy. Other issues, such as social and environmental safeguards have also been discussed at the international level; however, the outcomes of the last COPs (Durban and Doha) demonstrate the/a lack of priority over these.

(ii) The national level plays two roles. First, in supporting a global reduction in emissions of GHG (carbon impacts at international level); and, second, in guaranteeing that REDD+'s safeguards are integrated in policies and strategies; and,

(iii) The local level is more focused on social benefits and environmental issues than on carbon impacts[59] at international level or the reduction of GHG emissions.

Even though REDD+ has been a challenging scheme, the idea of a financial mechanism to reduce the effects of deforestation and forest degradation "has been a remarkably successful idea[60]" as the topic of forestry has been fully incorporated into the global climate agenda[61].

The following section will describe the key issues that were identified during REDD+'s emergence and evolution until now.

2.3 Key issues identified from REDD+ emergence and evolution

The evolution and the negotiation of REDD+ brought key issues of contention that have been crucial in the evolution of REDD+. These are:

(i) Commoditization of forest carbon: According to Prudham (2008) Commoditization is understood as interlinked processes whereby production for use is systematically displaced by production exchange. Corbera

[59] Visseren-Hamakers, I. J., Gupta, A., Herold, M., Peña-Claros, M., & Vijge, M. J. (2012). Will REDD+ work? The need for interdisciplinary research to address key challenges. *Current opinion in Environmental Sustainability, 4*(6), 590-596. (p.593)

[60] Angelsen, A., & McNeill, D. (2012). The evolution of REDD+. In A. Angelsen, M. Brockhaus, W. Sunderlin & L. Verchot (Eds.), *Analysing REDD+. Challenges and choices.* Indonesia: Centre for International Forestry Research -CIFOR. (p.32)

[61] ibid (p.32)

and Brown (2010) have stated that emission trading has created new forms of exchangeable property through which forest carbon has become a commodity that can be bought and sold in global markets. Some non-Annex I countries have argued that forests provide more essential ecosystem services that go beyond carbon storage and emission offsetting that are related to: (a) health (through disease regulation), livelihoods (providing local employment); (b) water (watershed protection, water flow regulation and rainfall generation); (c) food; (d) nutrient cycling; (e) climate regulation; and also (f) the cultural and spiritual connection that many forest-dependent communities have with forests. Many of these communities have argued that carbon storage is not the only environmental service that forests provide and that forests should be seen in an overall context when setting a price. Additionally, it is known that the carbon price has been fluctuating over the last years which is an external factor that cannot be managed or control at national or international level.

(ii) Forest-dependent communities' rights (land tenure, land use and carbon rights)

While REDD+ activities may generate benefits for rural communities, there are several risks that have been identified; such as (a) violation of customary land rights; (b) marginalization by new land-use zoning exercises; c) inability to participate in the mechanism because of lack of property rights; (d) exploitative carbon contracts that could lead communities to accept terms by signing away land use rights; and (e) capture by elites of intended REDD+ benefits due to inadequate forest governance systems[62]. For this reason, the issue about the respect of forest-dependent communities' rights within the social and environmental safeguards was included as part of the Cancun Agreement.

(iii) Willingness of forest-dependent communities to participate in REDD+ schemes

The increased presence of forest-dependent communities during the negotiations of UNFCCC has highlighted the importance and necessity of considering their willingness to participate in the implementation of REDD+ schemes. These forest communities have lived and depended on forest resources for their survival, and even though they do not possess land tenure titles, they consider themselves as owners of the land because of their ancestral heritage. Their willingness to participate is also related to the idea that by participating they will reduce the chances of having a reduction in their rights.

(iv) Consultation and participation processes

Within the UNFCCC many debates have been raised in relation to the consultation and participation processes. It is known that forest-dependent communities play a decisive role for the success of REDD+ projects and, thus, to the achievement of results in terms of emission reductions. Because of this, non-Annex I countries agree that it is crucial to respect the right to free, prior and informed consent (FPIC) procedures[63] before the implementation of REDD+ activities.

[62] Anderson, P. (2011). Free, Prior, and Informed Consent: Principles and approaches for policy and project development. Bangkok: RECOFT- The Centre for Peoples and Forests. (p.10)

[63] Anderson, P. (2011). Free, Prior, and Informed Consent: Principles and approaches for policy and project development. Bangkok: RECOFT- The Centre for Peoples and Forests (p.11)

(v) Political willingness to implement REDD+ scheme

Representatives of non-Annex I countries have declared their political willingness for the implementation of REDD+ national framework in their countries. Many of these countries have already begun the readiness phase in order to be able to apply for funds for the later implementation of REDD+ schemes.

(vi) Benefit-sharing mechanisms

According to several discussions in REDD+ negotiations, the schemes depend on how benefit-sharing mechanisms are designed and perceived, and payments may either strengthen existing motivations to conserve forests or undermine them[64]. Because of this, non-Annex I countries need to develop sound benefit-sharing mechanisms that guarantee and equitable and fair distribution of benefits.

(vii) Institutional capacity

Government institutions in non-Annex I countries are usually the regulators and managers of forests. These state institutions often lack financial and human resources and, as with many other government institutions in non-Annex I countries, may have poor governance records[65], which leads to unethical actions like corruption. Strengthening this capacity is essential for a successful REDD+ implementation.

(viii) Governance structures

REDD+ requires transparent, accountable, inclusive and coordinated systems and institutions to govern REDD+ programmes[66] within non-Annex I countries; mostly because forest governance in these countries is characterized by poor institutional coordination, a lack of effective decision-making procedures and accountability to affected FDCG, lack of public access to information about the use of natural resources, and low or no opportunities for public participation in forest management[67]. These governance flaws often contribute to forest conversions, illegal forest activities and unequal distribution of forest resources[68]. In negotiations of the UNFCCC, it has been discussed that non-Annex I countries should first strengthen their governance structures for them to receive the financing that is required for the implementation of REDD+ activities.

Both the UNREDD Programme and FCPF identify within their objectives for the readiness processes, the consolidation of forest governance structures as a requirement for non-Annex I countries, when presenting their proposals for funding. The templates these programmes have prepared also required an explanation of transparency methods, and participation and coordination processes in the design and implementation of REDD+

[64] Bowles, S. (2008) as cited by Clements, T. (2010). Reduced Expectations: The political and institutional challenges of REDD+. *Orynx, 44*(3), 309-310. (p.310)
[65] Clements, T. (2010). Reduced Expectations: The political and institutional challenges of REDD+. *Orynx, 44*(3), 309-310 (p.310)
[66] Williams, L. (2013). Putting the pieces together for good governance of REDD+: An analysis of 32 REDD+ country readiness proposals (pp. 10). Washington, D.C: World Resources Institute (WRI).(p.4)
[67] ibid (p.4)
[68] ibid (p.4)

activities[69]. Additionally, the UNREDD Programme developed tools and methods for developing "effective and inclusive national governance systems" for REDD+[70]. However, even with these tools and requirements in place, there are still reservations of how non-Annex I countries should develop or strengthen their governance structures for the implementation of REDD+ activities.

(ix) Financing mechanisms for the implementation of REDD+

Since 2009, and with the Copenhagen Accord, the UNFCCC called for Annex I countries to provide additional resources and investment through international institutions, with balanced allocations between adaptations and mitigation. Several Annex I countries have come forward with individual 'fast-start' climate finance pledges to help reach this goal[71]. However, even with these individual pledges, there is still doubt about how the REDD+ scheme is going to be financed in the long term. Some countries, like Norway, proposed the idea that REDD+ could be financed through offsetting emission targets by mitigation activities abroad. However, today, some scepticism still exists towards these markets[72]. Other countries like Canada, the USA and Australia believed solid market mechanisms to guarantee the financing of REDD+ scheme. However, the evolution of REDD+ has not brought consensus in this issue yet, but it is known that REDD+ finance requires funds at various levels, most likely both local and national[73].

In conclusion, it can be said that in order to get the outcomes these key issues should be developed, strengthened and applied in non-Annex I countries. But there is still uncertainty of how to implement these key issues and who should be involved, when several actors from different sectors and from different levels push forward their own agendas. Some of these key issues are included in the social and environmental safeguards which are explained in the following section.

2.3.1 REDD+ Social and environmental safeguards

Social and environmental safeguards became part of REDD+ scheme as negotiations of the UNFCCC became characterised by a solid presence of NGOs and forest-dependent communities' representatives who debated on issues relating to rights and participation. These groups have demanded and, in many cases, have gained a place at the table in both global and country level discussions. This has influenced the definition and focus of REDD+, where the parties agreed that REDD+ schemes should not just be motivated by the reduction of GHG emissions from deforestation and forest degradation but also that social and environmental concerns should be applied. The text calls on REDD+ "countries to provide information on safeguards, to address a range of environmental and

[69] ibid (p.4)
[70] http://www.un-redd.org/NewsCentre/Support_to_Effective_Governance/tabid/5543/Default.aspx. Retrieved October 15th, 2013
[71] Ballesteros, A., & Moncel, R. (2010). Additionality of Climate Finance: World Resources Institute (WRI). (p.2)
[72] Dutschke, M. (2009). The climate stabilization fund. Global auctioning of Emission Allowances to help forests and people. In W. Filho & F. Mannke (Eds.), *Interdisciplanry aspects of climate change* (pp. 103-120). Frankfurt and New York: Peter Lang Scientific Publishers (p.106)
[73] Karsenty, A., Tulyasuwan, N., & De-Blass, D. (2012). Financing options to support REDD+ activities. Based on a review of the literature. Paris, France: CIRAD. (p.17)

social issues including respect for indigenous and local communities, public participation and the protection of biodiversity"[74]. Even though the topic was set within the Cancun Agreements, the application and implementation of safeguards was left to the country's discretion rather than by a mandatory action[75]. According to Kovacevic (2011), the deficiency of strong safeguard reporting rules as well as corrective procedures in cases of underperformance could create a risk to the rights of forest-dependent communities as well as the environment[76].

The UNREDD programme defined 'safeguard' as "the need to guard against social/and or environmental destruction or harm. It is often used in reference to measures policies or procedures aimed to prevent undesirable outcomes of actions or programmes"[77]. Safeguards can be an effective risk management policy[78]; and, in the case of REDD+, social and environmental safeguards were proposed to ensure that social and environment issues were considered and evaluated in decision-making processes, so as to assess and reduce the risks and provide a mechanism for consultation and disclosure of information[79]. In other words, with the effective implementation of these safeguards, forest-dependent communities will be protected from anything that could threaten their rights and would also be a way to guarantee the protection of non-carbon forest values[80].

Up to now, there are still uncertainties that raise questions like: how should countries implement the social and environmental safeguards? Who is responsible for their implementation and monitoring? According to Lederer (2012), the success of REDD+ relies on the involvement of those living in the forests. One can, therefore, debate that input legitimacy from those who are affected by REDD+ has a fair chance of participating in its rule-setting. This process makes participation an important condition for any effectiveness to happen[81]. But, what else is needed?

2.4 Processes of the design and implementation of REDD+ schemes

Many non-Annex I countries have started with early actions. According to the final decision, REDD+ can be implemented in three phases and each country can determine its own course of action. At the national level, many countries like Guatemala are in the readiness phase (Phase 1), and are developing national REDD+ strategies and measures, and capacity building, as well as other actions that are helping the country to move forward to the next phase (policy implementation). However, at the same time, many individual projects within these non-Annex I countries have been designing and implementing REDD+ pilot projects at the local level in order to get the claimed benefits. As there is no official REDD+ framework yet, many pilot projects have been using the standard processes

[74] UNFCCC, 2011. The Cancun Agreement DEC1/CP.16. United Nations Framework Convention on Climate Change, pp.1-31
[75] Chhatre, A., Lakhanpal, S., Larson, A. M., Nelson, F., Ojha, H., & Rao, J. (2012). Social safeguards and co-benefits in REDD+: a review of the adjacent possible. *Current opinion in Environmental Sustainability, 4*(6), 654-660. (p.654)
[76] Kovacevic, M. (2011). "Durban Talks Both Good and Bad for REDD+, Says Expert." CIFOR Forests Blog. Retrieved 14 October 2013, from http://blog.cifor.org/6507/durban-talks-both-good-and-badfor-redd-says-expert/ - .T0drZ2AigXy.
[77] Moss, N., Nussbaum, R., Muchemi, J., & Halverson, E. (2011). A review of three REDD+ safeguard initiatives: UNREDD Programme, FCFP. (p.2)
[78] ibid (p.2)
[79] ibid (p.2)
[80] McDermott, C. L., Coad, L., Helfgott, A., & Schroeder, H. (2012). Operationalizing social safeguards in REDD+: actors, interests and ideas. *Environmental Science & Policy, 21*(0), 63-72. (p.63)
[81] Lederer, M. (2012). REDD+ governance. *WIREs Clim Change, 3*, 107-113. (p.110)

used in the voluntary carbon market. The standards have been adopted under the UNREDD Programme's procedures that are:

(i) The first stage requires the preparation of a Project Idea Note (R-PIN) undertaken by an intermediary (usually project developers or a third party) through consultation processes with forest-dependent communities. The R-PIN is used to get initial feedback on the feasibility of the project, and/or to lobby for external funding[82]. The R-PIN is crucial to determine how much revenue will be generated by the project in relation to the total costs estimated. This is the point where project developers should carefully consider if it is reasonable to proceed with the project[83].

(ii) If the R-PIN provides positive results in relation to the revenue and the R-PIN is approved, the next step is the development of the Project Design Document (PDD). This document requires technically-specific and accurate information about carbon storage. Because of the specificity of the information, project developers hire international/national consultants or 'experts' for its development. The PDD is sent to be validated and registered with standard organizations like the Verified Carbon Standard (VCS), the Climate Community and Biodiversity Alliance (CCBA) or others. However, standards differ between markets, introducing more difficulties for non-Annex I countries that want to implement the REDD+[84]scheme.

(iii) If the project has a potential buyer, where the negotiation, payment and time length is agreed between buyers and project developers, the project will begin.

(iv) During the time of implementation (depends on the agreement between buyer and seller), the project requires constant monitoring (which is partially developed by indigenous and non-indigenous forest communities) and verification, which is done by a third party.

According to these procedures, the length of time for REDD+ pilot projects to be designed and implemented is around 22 months and. After this period of time and, if the project is sold at international level, the first payment could be received.

REDD+ has gaps in information that each country needs to work through. Most of non-Annex I countries are following the UNREDD Programme, FCPF and FIP guidelines for the design and implementation of REDD+ pilot projects. However, even within these guidelines there is still the necessity to know: How can and should REDD+ schemes be designed and implemented in order to guarantee the generation of the 'win-win-win' outcomes?

[82] WCS. (2008). *WCS REDD Project Development Guide*. Lima: World Conservation Society and USAID. (p.7)
[83] ibid (p.7)
[84] Wertz-Kanounnikoff, S., & Angelsen, A. (2009). Global and national REDD+ architecture. Linking institutions and actions. In A. Angelsen (Ed.), *Realizing REDD+. National strategy and policy options* (pp. 13-23). Indonesia: CIFOR (p.13)

2.5 Claimed outcomes of REDD+ scheme

REDD+ has been envisioned to generate a 'win-win-win' outcome scenario. The first win relates to the reduction of emissions from deforestation and forest degradation, forest conservation, forest management and the enhancement of forest carbon stocks. In other words, this 'win' could be understood as keeping the forest standing. However, the debate at the international level is that this kind of economic incentive could promote the conversion of natural forests into forest plantations, as countries like Indonesia[85] are already doing.

The second 'win' is associated with social benefits that forest-dependent communities could receive. According to discussions, REDD+ revenues will be focused on rural development, which consists of improving livelihoods such as: quality of life, health care, education, jobs, improved market access and more favourable terms of finance for forest-dependent communities[86]. Through these, REDD+ could also contribute to poverty reduction[87] and poverty alleviation[88], as suggested by Merger et.at. (2011). Indeed, the emerging REDD+ text specifically states that REDD+ must be "implemented in the context of sustainable development and reducing poverty."[89] However, it is known that forest users will decide for conservation only if the net benefits are higher than those arising from forest use[90]. The third 'win' is about the conservation of the environment, therefore, of biodiversity.

To a certain extent and according to what has been analysed and proposed, REDD+ has been claimed to deliver all these benefits if properly implemented. However, in order to achieve these outcomes, local and national actions need to be developed with mechanisms that promote participation, decision making arrangements and the fair distribution of benefits. This involves many different actors with different agendas. The following section describes actors involved in REDD+ activities.

2.6 Actors involved in REDD+ processes

The previous section emphasized forest-dependent communities as the key actors as they are the main target group within REDD+ schemes (the ones directly involved and dependant on forest resources for their survival). However, the REDD+ community is becoming increasingly complex and heterogeneous, since not only climate actors, but conservation, development, agricultural and food security communities are now also involved[91]. Researchers like Corbera and Schroeder (2011), and Thompson (2011) agree that REDD+ is operating as a

[85] Budi-Indrarto, G., Murharhanti, P., Khatarina, J., Pulungan, I., Ivalerina, F., Rahman, Muharrom, E., et al. (2012). The Context of REDD+ in Indonesia. Drivers, agents and institutions *Working Paper 92*. Bogor, Indonesia: Centre for International Forestry Research.

[86] Nepstad, D., Moutinho, P., Boyd, W., Azevedo, A., Bezerra, T., Smid, B., et al. (2012). *Re-framing REDD+. Unlocking the potential of jurisdictional REDD+ as a policy framework for low-emission rural development. Research results and recommendations for governments*. Brasilia: Amazon Environmental Research Institute AERI.

[87] Angelsen, A., & McNeill, D. (2012). The evolution of REDD+. In A. Angelsen, M. Brockhaus, W. Sunderlin & L. Verchot (Eds.), *Analysing REDD+. Challenges and choices.* (pp. 31-49). Bogor, Indonesia: Centre for International Forestry Research –CIFOR. (p.42)

[88] Merger, E., Dutschke, M., & Verchot, L. (2011). Options for REDD+ voluntary certification to ensure net GHG benefits, poverty alleviation, sustainable management of forests and biodiversity conservation. *Forests, 2*, 550-577. (p.251)

[89] UNFCCC, 2011. The Cancun Agreement DEC1/CP.16. United Nations Framework Convention on Climate Change. (pp.1-31)

[90] Angelsen, A., & McNeill, D. (2012). The evolution of REDD+. In A. Angelsen, M. Brockhaus, W. Sunderlin & L. Verchot (Eds.), *Analysing REDD+: Challenges and choices* (pp. 31-50). Bogor, Indonesia: CIFOR. (p.42)

[91] Visseren-Hamakers, I. J., Gupta, A., Herold, M., Peña-Claros, M., & Vijge, M. J. (2012). Will REDD+ work? The need for interdisciplinary research to address key challenges. *Current opinion in Environmental Sustainability, 4*(6), 590-596. (p.592)

dynamic and disputed instrument of forest governance, where rules are designed and interpreted at multiple scales/levels involving state, private sector and civil society actors who interact within a yet wider network of actors and interests concerned with forest conservation development and trade[92].

This diversity of actors creates a multi-level and multi-actor scheme[93], with different agendas and implementation capacities at different levels. This multi-level scheme relates to actors at the: (i) international level like the UNREDD Programme, FCPF, and FIP providing of guidance and assistance to non-Annex I countries. ??Other actors can be found at this level like standard organizations (register and validate forest carbon projects) and buyers of ES (at national and international levels); (ii) national level that consists of governments, NGOs, the private sector, civil society organizations and forest-dependent community representatives; and (iii) local level with NGOs and forest communities and organizations who are the sellers of the ES.

All these actors determine the way REDD+ pilot projects and schemes are designed and implemented. However, it is important to analyse and determine who the real key players are and who stands to win and lose with the scheme.

2.7 Conclusion

This chapter provided a general overview of the emergence and evolution of REDD+. The analysis of the literature and the final COP decisions helped to identify key issues that were constantly being discussed. These key issues were: (i) the commoditization of forest carbon which, according to some forest communities, is against the spiritual, cultural and traditional relationships these communities have with forests; (ii)The need to guarantee the protection of forest-dependent communities' rights, which include land tenure, land use and carbon rights; (iii) The willingness, capacity and understanding of forest-dependent communities to participate in REDD+ processes; (iv) Effective consultation and participation processes using FPIC procedures; (v) Political willingness to implement the/a REDD+ scheme, as it is important to understand what development and reform policies could threaten REDD+ activities; (vi) The development of an equitable and fair benefit-sharing mechanism; (vii) Effective institutional capacity that will influence the achievement of outcomes; (viii) Solid governance structures that guarantee access to information, public participation, equitable distribution of benefits and institutional arrangements; and (ix) Financing mechanisms that will help non-Annex I countries start REDD+ activities.

In addition to these key issues, the processes in the design and implementation of REDD+ pilot projects are highly technical, expensive and time consuming. The original idea was to develop a scheme that could be adapted to the national and economic context of non-Annex I countries, mainly because the other Kyoto Protocol mechanisms (CDM, Joint Implementation (JI), and Emission Trading Scheme (ETS)) required high transaction costs, which were

[92] McDermott, C. L., Coad, L., Helfgott, A., & Schroeder, H. (2012). Operationalizing social safeguards in REDD+: actors, interests and ideas. *Environmental Science & Policy, 21*(0), 63-72. (p.65)

[93] Visseren-Hamakers, I. J., Gupta, A., Herold, M., Peña-Claros, M., & Vijge, M. J. (2012). Will REDD+ work? The need for interdisciplinary research to address key challenges. *Current opinion in Environmental Sustainability, 4*(6), 590-596. (p.592)

a disadvantage for these countries. However, the evolution of REDD+ has turned this simple scheme into another complex mechanism. These situations raise questions such as: what is the right process of design of REDD+ pilot projects? What are the institutional capacities and arrangements that countries, like Guatemala, need to have and implement in REDD+ pilot projects?

In relation to the actors involved in REDD+, the evolution brought the presence of a range of actors from different sectors and with different agendas that complicated international negotiations mainly on these key issues. However, it is important to analyse who the main actors are and who should be the ones participating in the design and implementation of REDD+. In other words, it is important to analyse who stands to gain and who to lose from REDD+ schemes? Who should be the actors involved in decision-making processes (designing and implementing) of REDD+ pilot projects?

This chapter described the emergence and evolution of REDD+. However, this evolution brought about questions related to issues that influence the achievement of REDD+ outcomes. With the intention to understand more about whether, and how, REDD+ could achieve these expected outcomes, and to find answers to unresolved questions, it is important to know the findings and theories of various scholars in relation to other PES schemes and the REDD+ scheme. These will be discussed further in the literature review of the following chapter.

Chapter 3

THEORY OF REDD+ AS A PAYMENT FOR ECOSYSTEM SERVICES

3.1 Introduction

Ecosystems offer an extensive variety of services to human beings, such as climate and flood regulation, water purification, nutrient cycling and carbon sequestration to mention a few[94]. However, currently, many of these ecosystem services (ES) are either undervalued or have no financial value; and, economic decisions often focus on the immediate financial returns[95]. Because of growing concerns about ecosystems degradation, markets for ES are emerging in countries around the world, following the idea that markets can solve environmental problems[96], an idea that has raised many questions and controversy in the context of non-Annex I countries, in particular. In economic theory, environmental or ecosystem degradation is considered a market failure, and advocates suggest that this can be fixed through ecosystem services markets and transfers between buyers and sellers.[97] These transfers are known as payment for ecosystem services (PES).

According to Pagiola, Arcenas and Platais (2005), PES schemes will produce ideal gains because the market allocates the limited conservation resources more efficiently than 'command-and-control' regulations by governments or international agreements. As a way to reduce the effects of climate change, REDD+ was proposed under the Kyoto Protocol as an economic incentive scheme in which non-Annex I countries could also contribute to forest conservation. The central idea was that payments could tip the economic balance in favour of sustainable forest management and, in the process, reduce the effects of climate change[98]. In other words, REDD+ was proposed as a global PES where it was expected that the use of economic incentives would change the behaviour of forest users. However, as yet[99], it is uncertain how much a REDD+ scheme can contribute to behavioural changes in forest users.

The analysis in Chapter 2 helps to identify key issues such as: (i) the commoditization of forest carbon; (ii) forest-dependent communities' rights; (iii) the willingness of forest-dependent communities to participate; (iv) consultation and participation processes; (vi) political willingness to implement REDD+ schemes; (vi) benefit-sharing mechanisms; (vii) institutional capacity; (viii) governance structures; and (ix) financing mechanisms for the implementation of REDD+ activities. Also, this analysis helps to identify the active participation of many different

[94] UNEP. (2008). *Payments for Ecosystem Services: Getting started*. Nairobi: Forest Trends, The Katoomba Group, and UNEP. (p.2)
[95] Ibid.(p.2)
[96] Robertson, M. M. (2004). The neoliberalization of ecosystem services: wetland mitigation banking and problems in environmental governance. *Geoforum, 35*(3), 361-373. doi:http://dx.doi.org/10.1016/j.geoforum.2003.06.002
[97] Pattanayak, S., Wunder, S., & Ferraro, P. (2010). Show me the money: Do payments supply environmental services in developing countries? *Review of Environmental Economics and Policy, 4*(2), 254-274. doi:doi:10.1093/reep/req006
[98] Bluffstone, R., Robinson, E., & Guthiga, P. (2013). REDD+and community-controlled forests in low-income countries: Any hope for a linkage? *Ecological Economics, 87*(0), 43-52. doi:http://dx.doi.org/10.1016/j.ecolecon.2012.12.004 (p.43)
[99] September 2013

actors with different agendas and reveals how the different processes of design and implementation in different countries have influenced the evolution of the scheme.

This chapter discusses scholars' theoretical insights into the question of whether REDD+ can deliver 'win-win-win' outcomes. Moreover, this chapter will critically analyze the key issues that the previous chapter identified and how attainable or not these outcomes are. The theory of how to implement REDD+ is based on assumptions scholars have made in relation to REDD+'s potential to deliver positive social and environmental outcomes in the context of non-Annex I countries like Guatemala. Some of these assumptions are based on the key issues identified.

Even while acknowledging these key issues, REDD+ is seen as a different scheme from previous forest conservation efforts[100]. The reasons to believe that, are based on arguments such as: (i) forest-dependent communities will conserve their forest coverage since they can make money by doing so[101]; (ii) it is considered a key emissions mitigation strategy[102] and the link between adaptation and mitigation[103] because payments will require demonstrated emissions reductions through improved forest protection, sustainable forest management, and/or enhancement of forest carbon stocks; (iii) it is a way to enhance poverty reduction and poverty alleviation, biodiversity benefits, ecosystem resilience[104]; and (iv) it is also considered a 'climate governance experiment'[105] whose success depends on decisions that are being made at all levels of politics[106].

The findings in Chapter 3 confirmed that REDD+ has been developed under the assumption of readiness conditions that non-Annex I countries should or could have. However, the truth is that it is uncommon to find a non-Annex I country with all the conditions necessary for the successful implementation of REDD+. This strengthens the idea that non-Annex I countries need a new structure to develop and implement these conditions.

The chapter is organized as follows: Section 2 will critically analyze REDD+ and the theory of payment for ecosystem services, the existing types of schemes, the opportunities, benefits, risks and ideal conditions according to the theory. Section 3 analyzes how REDD+ as a PES scheme is meant to work in relation to the theory, and what are the social and environmental considerations of these schemes and the assumptions they are based on. Section 4 will examine the actors involved in REDD+ schemes; Section 5 will analyze the politics and power behind the implementation of REDD+ schemes. Section 6 identifies how the assumptions are used in the development of REDD+ and other PES schemes. Section 7 will present the conclusions of the chapter.

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[100] Sunderlin, W., & Atmadja, S. (2009). Is REDD+ an idea whose time has come, or gone? In A. Angelsen (Ed.), *Realising REDD+. National Strategy and policy options*. Indonesia: CIFOR. (pp. 45-56)

[101] Angelsen, A., & McNeill, D. (2012). The evolution of REDD+. In A. Angelsen, M. Brockhaus, W. Sunderlin & L. Verchot (Eds.), *Analysing REDD+. Challenges and choices.* Bogor, Indonesia: Centre for International Forestry Research -CIFOR.(p.34)

[102] Phelps, J., Webb, E., & Agrawal, A. (2010). Does REDD+ threaten to recentralize forest governance? [Policy Forum.]. *Science, 328*, 312-313. (p.312)

[103] FERN, CARE, GREENPEACE, & ClientEarth. (2012, September 2012). *REDD+: an incentive structure for long-term performance*. Paper presented at the meeting of the UNFCCC, Bangkok. (p.2)

[104] Ibid.(p.2)

[105] Hoffmann MJ (2011) as cited by Lederer, M. (2012). REDD+ governance. *WIREs Clim Change, 3*, 107-113. doi:10.1002/wcc.155.

[106] Ibid.(p.107)

3.2 The theory of payment for ecosystem services (PES): What is PES?

The literature on ES[107] and the way they benefit human societies has been growing in number and in complexity[108]. Several definitions have been put forward to explain the connections between the environment, its ecosystems, services and human beings. PES is an incentive-based conservation scheme involving monetary transfers to sellers of ES, conditional on their supply or on actions (forest management and conservation, as well as other agroforestry or silvopastoral practices[109]) that are believed to generate ES[110]. The main idea behind PES is that those who provide ecosystem services - like any other service - should be paid for doing so[111]. This mechanism offers an opportunity to set a price on previously un-priced ES and, in doing so, bring them into the wider economy. This idea focuses on the "beneficiary pays principle[112]', whereby the beneficiaries of ecosystem services offer payments to the providers or ecosystem services that are opposite to the 'polluter pays principle'.

One of the most used methods to explain PES schemes is the one proposed by Sven Wünder[113]. This author describes criteria that identify actors and their roles in a PES scheme as: "(i) a voluntary transaction in which, (ii) a well-defined ES or a form of land use that secure that service, (iii) is bought by at least one ES buyer, (iv) from a minimum of one ES seller, (vi) if and only if the provider continues to supply that service (conditionality*)".* The author explains that PES schemes have a built-in feedback mechanism: buyers have a strong incentive to guarantee that their money is spent effectively and to request changes or stop payments in the scheme if it is not[114]. Likewise, the payments from a PES scheme are conditional on conserving an ecosystem's use and its specific and well-defined environmental services; in the case of REDD+, it is the service of carbon storage[115].

It is important to consider that Wünder's criteria, as well as PES theory are based under conditions of a perfect market. However, there are many considerations that proves that markets are not perfect and there are no exceptions with REDD+ PES schemes. REDD+ establishes that Annex I countries *will pay* non-Annex I countries to keep their forest standing. Conversely it is important to consider if this payment is worth it. Carbon prices have been fluctuating which has reduced interest to stay on the market to many countries. Since 2010 until 2015 the New Zealand carbon price within its Emission Trading Scheme (ETS) has fallen from NZ$ 22.00 per tonne of CO_2 to NZ$ 5.30 as shown in figure 3-1.

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[107] Environmental and ecosystem services are often used interchangeably in the literature, however for the purposes of the present research; I will refer only to ecosystem services, as I consider that the ecosystem is part of the environment. Ecosystems are active and dynamic in its processes, while the environment represents the whole of these processes within natural resources.

[108] Mayrand, K., & Paquin, M. (2004). *Payments for environmental services: A survey and assessment of current schemes*. Montreal: Unisfera- International Centre.(p.3)

[109] Ibid.(p.3)

[110] Arriagada, R., Ferraro, P. J., Sills, E., Pattanayak, S., & Cordero-Sancho, S. (2012). Do Payments for environmental services affect forest cover? A farm-level evaluation from Costa Rica. *Land Economics, 88*(2), 382-399. (p.382)

[111] Smith, S., Rowcroft, P., Rogers, H., Quick, T., Eves, C., & White, C. (2013). *Payment for Ecosystem Services. A best practice guide.* London: DEFRA. (p.13)

[112] Ibid.(p.13)

[113] Wünder, Sven (2005), quoted on CIFOR website: http://www.cifor.org/pes/_ref/about/index.htm. Accessed 24.02.1013

[114] Pagiola, S., Arcenas, A., & Platais, G. (2005). Can Payments for Environmental Services Help Reduce Poverty? An Exploration of the Issues and the Evidence to Date from Latin America. *World Development, 33*(2), 237-253. doi:http://dx.doi.org/10.1016/j.worlddev.2004.07.011 (p. 238)

[115] Wünder, Sven (2005), quoted on CIFOR website: http://www.cifor.org/pes/_ref/about/index.htm. Accessed 24.02.1013

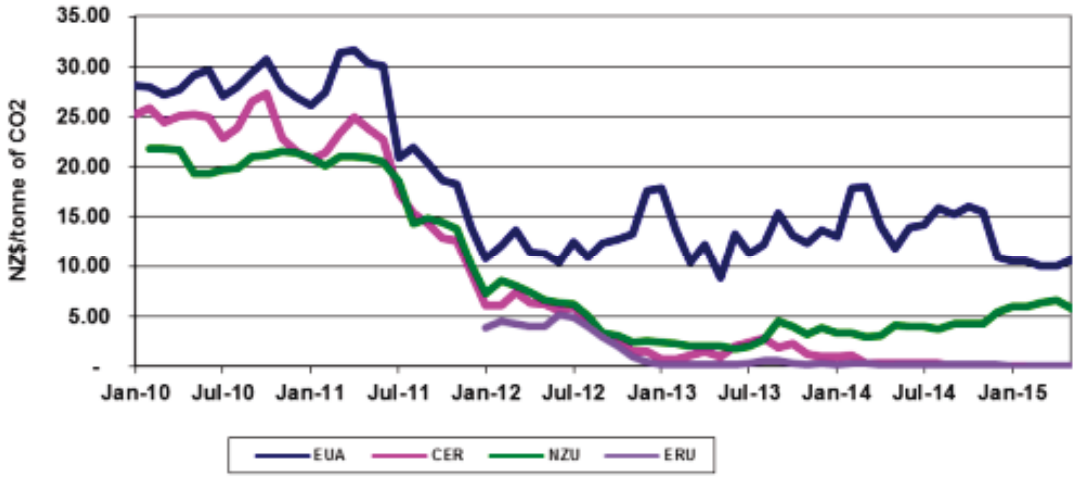

Figure 3-1 Carbon Prices NZ$/tonne CO_2e

Source: Agrifax, 2015

This fluctuation has resulted in the abandonment of New Zealand to the second commitment period of the Kyoto Protocol in 2013. This trend of the carbon prices is the same at a global scale which proves the uncertainties of the achievement of social benefits under any other forest carbon scheme.

According to Arriagada et al., (2002) the main attraction of PES schemes is based on the assumption that they provide economic benefits which alleviate or reduce poverty and improve equity as the incentive creates new income-generating opportunities"[116]. However, this argument has raised questions and doubts in relation to the real benefits that PES schemes have been delivering, or if they are capable to deliver any benefits at all. As such, in order to achieve the expected social benefits, PES design must take into account the political, economic, socio-cultural, situation of a nation, as every country and every project is different.

3.2.1 Types of ecosystem services

Markets for ES differ in many aspects, for example: geographic scope, asset and structure of demand, the affordability, the environment, price of commodities sold and the number of transactions[117]. According to Mayrand (2004), PES schemes are likely to be effective only if the nature of the markets for the ES they are targeting is well understood[118]. The author also mentions that one of the challenges of designing and implementing a PES scheme

[116] Arriagada, R., & Perrings, C. (2009). *Making payments for ecosystem services work*. Kenya: UNEP. (p.4)
[117] Mayrand, K., & Paquin, M. (2004). *Payments for environmental services: A survey and assessment of current schemes*. Montreal: Unisfera- International Centre.(p.9)
[118] Ibid. (p.9)

is to transform ES into commodities that can be sold to buyers. However, the commoditization of nature is an issue that has raised many ethical and ideological concerns, especially from those who depend on forest resources for their survival. That is why it is important to ask: Can or should ES be quantified in monetary terms? Can such 'goods' be isolated from other ES? This is an issue that is still in debate, as the market of ecosystem services has isolated each ES individually. In that regard, I believe that PES projects should be assessed and valued using a holistic approach; considering all ecosystem services as a 'whole' that are interlinked with ecological processes and from which humans benefit. The Millennium Ecosystem Assessment (MEA) identifies four broad categories of ecosystem services: (i) provisioning services; (ii) regulating services; (iii) cultural services; and (iv) supporting services. Table 3.1 describes these types of ES.

Table 3-1 Types of Ecosystem Services

Category	Description
Provisioning services products obtained from ecosystems	• Food e.g. crops, fruit, fish • Fibre and fuel, e.g. timber, wood • Biochemical, natural medicines and pharmaceuticals • Genetic resources: genes, and genetic information used for animal and plant breeding and biotechnology
Regulating services benefits obtained from the regulation of ecosystem processes	• Air-quality maintenance: ecosystems contribute with chemicals to and extract chemicals from the atmosphere • Climate regulation e.g. land cover can affect local temperature and precipitation; globally ecosystems affect greenhouse gas sequestration and emissions. • Water regulation: ecosystems affect, e.g. the timing and magnitude of runoff, flooding • Erosion control: vegetative cover plays an important role in soil retention/prevention of land/ asset erosion. • Water purification/detoxification: ecosystems can be a source of water impurities but can also help to filter out/decompose organic waste. • Natural hazard protection, e.g. storms, floods, landslides. • Bioremediation of waste, i.e. removal of pollutants through storage, dilution, transformation and burial.
Cultural services non-material benefits that people obtain through spiritual enrichment, cognitive development, recreation etc.	• Spiritual and religious value: many religions attach spiritual and religious values to ecosystems. • Inspiration for art, folklore, architecture, etc • Social relations: ecosystems affect the types of social relations that are established, e.g. fishing societies. • Aesthetic values: many people find beauty in various aspects of ecosystems • Cultural heritage values; many societies place high value on the maintenance of important landscapes or species. • Recreation and ecotourism
Supporting services, necessary for the production of all other ecosystem services	• Soil formation and retention • Nutrient cycling • Primary production • Water cycling • Production of atmospheric oxygen • Provision of habitat

Source: Assessment, M. E. (2005). Ecosystem and Human Well-being: Opportunities and Challenges for Business and Industry. Washington D.C.: World Resources Institute-WRI.

The marketing of ES requires accurate information not just about the ES itself but the nature of the market, the demand structure and value of the ES to buyers. Moreover, the success of a PES scheme requires solid knowledge of the markets and its dynamics, for the ES to be sold. The following section analyzes the marketplace.

3.2.2 The marketplace of ecosytem services

PES schemes emerged as a way to address the loss of valuable ecosystem services. According to the Millennium Ecosystem Assessment, PES schemes around the world have expanded tremendously[119]. In order to understand the marketplace of ES, the analysis of various publications about PES schemes helped distil the three main purposes for buyers to get into this market of ES: (i) 'the right thing to do'; (ii) the need for the ES; (iii) to comply with national or international laws; and (iv) for marketing purposes.

In relation to 'the right thing to do', Ferraro et.al. (2002) mentioned that in the late 1990s payment for different types of ES emerged as one innovative response for the management of ecosystems and their conservation. For example, Conservation International (CI) is protecting 81,000 hectares of rain forest in Guyana through a conservation concession that costs $1.25 per hectare per year[120]; and The Wildlife Foundation in Kenya is securing migration corridors on private land through conservation leases at $4.00 per acre per year[121]. These groups value the importance of conserving of these areas and conserve them because is the right thing to do. Regarding the need for ES, for example, in Latin America, different stakeholders such as irrigation water user groups, municipal water supply agencies and other governmental bodies have initiated and executed responses and policies for the implementation of PES schemes[122] as they need to conserve the water supply. The idea of using PES schemes to comply with national or international laws are more related to the reduction of the impacts from companies and industries on the environment. For example, carbon offset trading in which the emitting party of carbon dioxide pays the forest owner or management unit for the carbon offsets their forests generate[123]. The last one is the use of the PES for marketing purposes, and that can be seen in companies offsetting their carbon footprint and promoting the carbon neutral condition of their products in order to be more "environmental friendly" to the consumer.

On the basis of these arguments, PES schemes vary depending on the type of the ES and the purpose it is uses for. In the case of the REDD+ scheme, the idea is to use carbon storage as a regulating service. However, forests themselves provide many more services and that is why REDD+ has evolved into a complex PES scheme. In the following section is an analysis of the opportunities, benefits, risks and ideal conditions for PES to work.

[119] MEA. (2005). *Ecosystem and Human Well-being: Opportunities and Challenges for Business and Industry.* Washington D.C.: World Resources Institute-WRI.
[120] Ferraro, P. J., & Kiss, A. (2002). Direct Payments to Conserve Biodiversity. *Science's Compass, 298*, (pp.1718-1719).
[121] Ibid.(pp 1718-1719).
[122] Kumar, P. (2005). *Market for Ecosystem Services*. Winnipeg, Manitoba: International Institute for Sustainable Development. (p.15)
[123] Ibid. (p.24)

3.2.3 Opportunities, benefits, risks and ideal conditions for PES schemes

The discussion about the capacity of PES schemes to reduce poverty is varied[124]. Authors like Pangiola, et.al (2005) mention that PES programmes are not a 'magic bullet' for poverty reduction but they can develop central synergies when the programme design is properly developed and local conditions are favourable[125]. However, it is important to consider that PES schemes provide not just opportunities and benefits to forest-dependent communities, but also potential risks and limiting factors that should be not just considered, but analyzed as well as they determine the outcome of the schemes. The following tables describe and analyze them.

Table 3-2 Opportunities and benefits of PES schemes

Opportunity	Description of benefits
Increase cash income	Low-income people could earn money by restoring and conserving ecosystems[126]. Many forest dependent people earn their living from natural resource-based activities, such as forestry and farming. Short-term incentives exist for unsustainable forestry and farming practices which can draw down capital and limit options for future development. Depending on how the PES scheme is designed, it could provide of regular payments that could, in turn, promote long-term sustainable use and even conservation of the environment by providing both a reliable source of supplemental income and additional employment in the community. Even a modest payment, provided over many years, may in certain contexts, deliver a significant increase in net income as well as a mechanism for adopting more sustainable land management[127].
Protect rights (land use, land and carbon storage)	Through the implementation of PES schemes, forest-dependent communities could strengthen the protection of their rights.
Expand experience with external business activities	Through PES negotiations, skills related to economic transactions and interactions with intermediaries could be developed.
Promote participation at different levels and endorse decision-making arrangements.	Different PES schemes have promoted the participation of sellers of ES in negotiations at different levels, with different actors, from which decision-making arrangements have emerged.
Increase knowledge of sustainable resource use practices	This could be undertaken through educational workshops, training programmes and technical assistance associated with PES implementation

Source: (The-Katoomba-Group. et al., 2008)

These opportunities, and perhaps many others, are what scholars have based their assumptions on for the development of proposals like REDD+ scheme. However, when dealing with global PES schemes and, when the management of forests are in negotiation, many aspects can positively or negatively influence the achievement of the outcomes. Table 3-3 describes some of these aspects that could jeopardise the achievement of outcomes.

[124] The-Katoomba-Group., UNEP, & Forest-Trends. (2008). *Payment for Ecosystem Services: Getting Started. A Primer*. Nairobi: The Katommba Group, UNEP, Forest Trends. (p.10)

[125] Pagiola, S., Arcenas, A., & Platais, G. (2005). Can Payments for Environmental Services Help Reduce Poverty? An Exploration of the Issues and the Evidence to Date from Latin America. *World Development, 33*(2), 237-253. doi:http://dx.doi.org/10.1016/j.worlddev.2004.07.011 (p.248)

[126] The-Katoomba-Group., UNEP, & Forest-Trends. (2008). *Payment for Ecosystem Services: Getting Started. A Primer*. Nairobi: The Katommba Group, UNEP, Forest Trends. (p.10)

[127] Ibid. (p.10)

Table 3-3 Risks associated with the implementation of PES schemes	
Risks	**Description**
Poor understanding of what is being bought and sold	Many PES schemes imply a market-based focus on intangible ES (like carbon storage), which may differ with cultural conceptions when isolating one ES within forest-dependent communities
Loss of rights to land use, harvest products, or environmental services.	PES schemes should consider a resource plan that accounts for the seller's access to forest resources.
Loss of employment	The PES could consider the reduction of land management activities
Unfair outcomes	This could happen with the unfair sharing of net revenues
Increase competition for land use, land access	PES schemes could attract speculative or unethical investors, which could in turn scam forest-dependent communities or forest owners, especially where low levels of tenure security exist.
Loss of critically important ecosystem services	This could be the case when projects are poorly designed, for example, in carbon sequestration projects that consider large-scale monoculture plantations that could negatively affect watersheds and biodiversity.
Confusion over resource and ecosystem service rights and loss of rights to land	PES schemes compensate communities for taking action to maintain or enhance ES, but this does not mean the transfer of resource rights
Loss of control and flexibility over local development options and directions	Poorly designed projects could lead to long-term contracts that can limit land management activities which could cost communities rights to exercise certain options for managing their land.
Performance risk and the need for insurance	When payments are dependent upon delivery of specific ES outcomes, external factors (natural phenomena: wildfire, pests, change in rainfall, etc) may result in a failure to achieve contractual obligations, therefore no payment is received.
Incompatibility of PES with cultural values	In some areas, PES are still seen as a commoditization of nature that should not have a price attached.
Source: modified from The-Katoomba-Group., UNEP, & Forest-Trends. (2008). Payment for Ecosystem Services: Getting Started. A Primer. Nairobi: The Katommba Group, UNEP, Forest Trends (p.11)	

Various scholars have identified a series of limiting factors that hinder the implementation of PES schemes. These are[128]: (i) restricted access to information about different topics like PES schemes and their economics (buyers and sellers); (ii) lack of finance for the establishment of PES schemes; (iii) limited negotiation power, especially of forest-dependent communities, to influence, shape or enforce rules and contracts; (iv) limited organization or outreach to combine the supply of services needed to attract investors or a range of buyers; (v) lack of efficient intermediary institutions to reduce transaction costs along the value chain to buyers; and (vi) local priorities for meeting ES needs.

Considering the above opportunities and benefits, risks and limiting factors The Katoomba Group with UNEP and Forest Trends (2008), have proposed a list of 'ideal conditions' of when and where PES schemes are most likely to flourish[129]. These conditions are:

[128] Ibid. (p.13)
[129] Ibid. (p.13)

Table 3-4 Ideal conditions for PES schemes	
Condition	**Description**
Demand for ES is clear and financially valuable to one or more buyers.	As described by Wunder, PES schemes are most likely to occur when there is at least one buyer and one seller of the ES with both, having an incentive to invest in the conservation of this service and the accessible funds for doing so.
Supply of the ES is threatened	If resources are clearly diminishing to the point of scarcity, then a PES deal holds potential.
Specific resources management actions have the potential to address supply constraints	In a PES scheme is important to identify what resource management practices could be changed or reformed.
Contract laws not only exist but are enforced and resource tenure is clear	Buyers must have the guarantee that contract provisions of the transaction are safe.
Clear criteria for evaluating equitable distribution of benefits	Clear criteria of fairness need to be designed and agreed by all parties to the transaction
Source: The-Katoomba-Group., UNEP, & Forest-Trends. (2008). Payment for Ecosystem Services: Getting Started. A Primer. Nairobi: The Katommba Group, UNEP, Forest Trends (p.13)	

A list of 'ideal conditions' is a first step towards a more integrated list of conditions that are needed at the local, national and, even, international level, for the successful implementation of PES schemes. These lists of opportunities and benefits, risks, limiting factors and ideal conditions show that the implementation of any PES scheme is not easy. Their implementation, and how effective or not these have been in order to achieve the expected social and environmental outcomes, has been under research for many years. Different initiatives have been demonstrated to have different capacities, different methods and different processes. However, until today, there has been no 'ideal recipe' for the implementation of effective PES schemes that could adapt to every country's context. Even with these uncertainties, REDD+ has been implemented in several non-Annex I countries around the world without an official framework of how to implement it. The following section will analyze how REDD+ is supposed to work.

3.3 Defining REDD+ as PES scheme: how it is meant to work?

REDD+ is seen as a hybrid of old and new forest conservation approaches, e.g. a system of conditional performance-based payments[130], with an integrated conservation and development project (ICDP) approach and a PES scheme [131]. However, if considering the PES scheme approach, then it is seen as a global payment for ecosystem services which, on theoretical grounds in the way it works, appears to be simple[132]; buyers (Annex I countries) of the ES pay forest-dependent communities (sellers) of non-Annex I countries to provide carbon storage services through forest management practices they follow[133]". The central idea of REDD+ is to create a multi-level

[130]Sills, E., Myers, E., Sunderlin, W. D., & Wertz-Kanounnikoff, S. (2009). The evolving landscape of REDD+ projects. In A. Angelsen, M. Brockhaus, M. Kanninen, E. Sills, W. Sunderlin & S. Wertz-Kanounnikoff (Eds.), *Realising REDD+: National strategy and policy options* (pp. 265-280) (p.265)

[131] Ibid.(p.265)

[132] Arriagada, R., & Perrings, C. (2009). *Making payments for ecosystem services work*. Kenya: UNEP. (p.4)

[133] Ibid. (p.4)

(international-national-local) PES scheme that will reduce emissions and increase forest carbon stocks, through the reduction of deforestation and forest degradation. While payment directly to forest carbon right holders has strong merits, the challenges for its wide application in the short term are huge[134]. In that regard it is important to analyze, why countries are hastening to implement REDD+ pilot projects knowing the many challenges project developers need to face?

Figure 3-1 presents the conceptual model of REDD+, proposed by Angelsen et.at (2008). Considering Wunder's criteria of buyers and sellers, this conceptual model describes the three levels which are seen in REDD+. Within REDD+, buyers are located at the international level and are Annex I countries. Sellers of the carbon storage are at the national and local levels with REDD+ pilot projects.

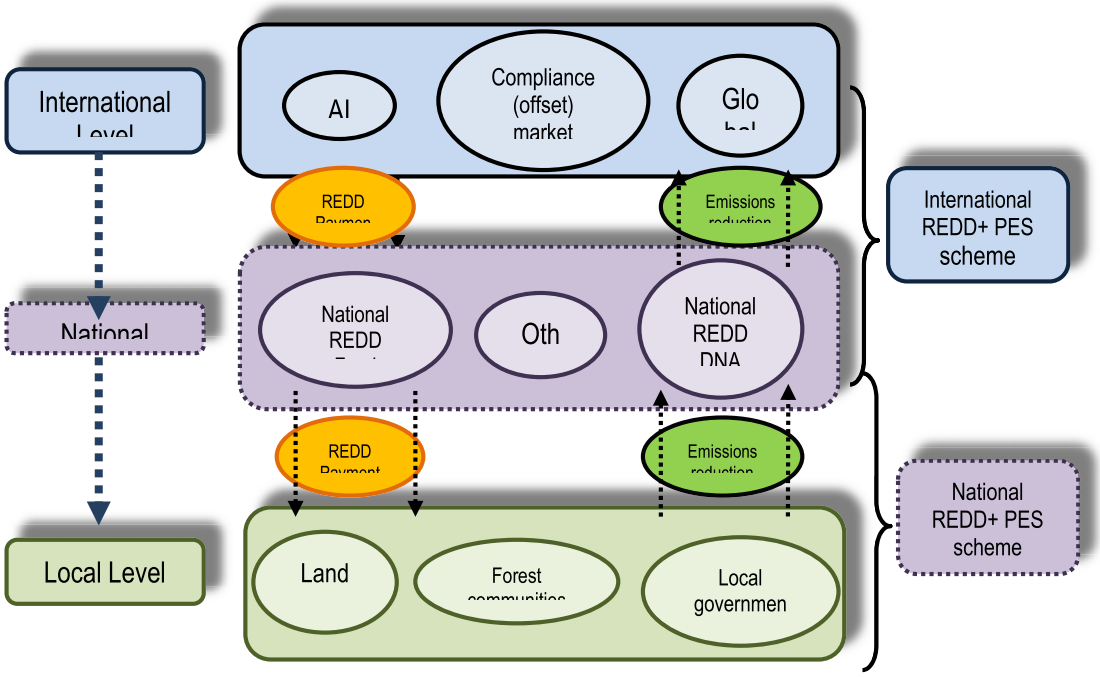

Figure 3-1 Conceptual model of REDD+ scheme

Source: (A. Angelsen & Wertz-Kanounnikoff, 2008) (p.12)

As explained in Chapter 2, the evolution of REDD+ brought about presence of many different actors from different sectors and it also provided of information of the processes used which could defer in every country. Both are relevant for the achievement of the claimed outcomes. However, the main ones pushing forward their needs and rights were forest-dependent communities. Indeed, the incorporation of social and environmental safeguards into

[134] Angelsen, A. (2009). Introduction. In A. Angelsen (Ed.), *Realising REDD+. National strategy and policy options*. Bogor, Indonesia: CIFOR. (p.3)

the negotiations of REDD+ framework reflect their influence into these discussions. The following section analyzes the seven social and environmental safeguards of REDD+.

3.3.1 Social and environmental safeguards of REDD+

In most developing countries, forest management is a challenging field in which disagreements and corruption are common and many stakeholders, including powerful elites' (commercial) interests, government officials, local entrepreneurs and sometimes marginalized forest dependent peoples, strive for access to valuable land and resources in what is often a governance vacuum[135]. The social and environmental outcomes of this situation have left a negative atmosphere with poor governance, poverty, social conflicts and environmental degradation that challenges the goals of REDD+. Robust safeguards and transparency in their implementation is indispensable to attracting investors for REDD+'s implementation in any non-Annex I countries.

The incorporation of social and environmental aspects in forest carbon projects is not exclusive to REDD+ projects. This is because, when registering forest carbon projects (voluntary or regulated markets), project developers need to fulfil the social and environmental requirements of applied standards, such as VCS, CCAB, or Plan Vivo, to mention a few. These projects need to demonstrate how they will implement them in order to get the verified certification. According to research, there are over 30 social, environmental and carbon standards criteria that are being applied today. Roe et. al., (2013) briefly summarizes those criteria in Table 3-5 in comparison with the ones proposed in REDD+ safeguards.

Table 3-5 Social, environmental and procedural safeguards

Criteria	Safeguards	REDD+ safeguards
Social	• Application of free, informed and prior consent (FPIC) • Consideration of vulnerable groups • Support of tenure and resource rights • Enhancement of livelihoods and labour rights • Inclusion of guidance on benefit-sharing • Provision related to the avoidance of resettlement	1. Respect of cultural and spiritual knowledge and rights of indigenous peoples and local forest communities
Environmental	• Mitigation of environmental impacts • Enhancement of biodiversity and other ecosystem services • Avoidance of reversals and displacement of emissions	2. Protection and conservation of natural forests and their ecosystem services 3. Prevention of conversion of natural forests 4. Conservation of biological diversity 5. Risk of reversals and the risk of displacement of emissions
Procedural	• Integration of safeguards in policies, laws and regulations • Rules mandating transparency • Requirement of stakeholder participation	6. Transparent and effective national forest governance structures 7. Stakeholders' participation

[135] Robledo, C., Blaser, J., Byrne, S., & Schmidt, K. (2008). *Climate Change and Governance in the Forest Sector*. Washington DC.: The Rights and Resource Initiative.

	• System for monitoring and reporting (safeguard information system) • Established grievance mechanism to address concerns and conflicts • Regulated compliance assessment process	

Source: (Roe, Streck, Pritchard, & Costenbader, 2013)(p.13)

REDD+ has been developed to be implemented at two levels: (i) at national level with the development and implementation of the national REDD+ framework that will provide the necessary policies, strategies and norms (guidance) for actions at the local level; and (ii) at local or project level, where independent project developers are starting with REDD+ pilot projects. At the national level, in theory, REDD+ participating countries will take into account these safeguards when designing and implementing national frameworks. By 'in theory' it means that when negotiating at the international level, many non-Annex I countries have agreed to implement these safeguards, but on the ground, at national level, their implementation has been poor. Many reasons are behind the deficiency: (i) lack of continuity of people who made the commitment at international level (political changes); (ii) lack of understanding about its relevance and of how to implement them; and (iii) lack of willingness. The adoption of these safeguards within a national REDD+ framework provides an assurance that these topics are considered and gives guidance of how individual projects should be developed.

At a local or project level, the implementation of these safeguards are required by international standards. This means that in order to get the necessary certification and validation of the forest carbon credits, projects need to demonstrate how they are implementing these safeguards. The way to implement safeguards with the objective of protecting forest-dependent communities from REDD+ possible effects[136], is an ongoing source of dispute at different levels and Chapter 2 revealed that until COP18, no agreement had been reached in relation to the monitoring of these safeguards.

The following sections will analyse each of the seven proposed REDD+'s social and environmental safeguards, according to the Cancun Agreement of the UNFCCC[137]:

3.3.1.1 Actions complement or are consistent with the objectives of national forest programmes and relevant international conventions and agreements

Chapter 2Many non-Annex I countries already have national forest programmes that in one way or another have been implemented. When developing REDD+ national frameworks or pilot projects, these countries need to take into account their national programmes and how REDD+ activities fit under those norms. At the same time, REDD+ activities need to be consistent with international agreements that non-Annex I countries have already adopted, like

[136] Lawlor, K., Myers, E., Blockhus, J., & Ganz, D. (2013). Community participation and benefits in REDD+: A review of initial outcomes and lessons. *Forests, 4*, 296-318.(p.297)

[137] UNFCCC. (2010). *Cancun Agreement*. Cancun, Mexico: United Nations Framework Convention on Climate Change.

the Convention of Biological Diversity (CBD). The synergies that other international conventions and agreements could bring for the implementation of REDD+ could ease processes and negotiations.

3.3.1.2 Transparent and effective national forest governance structures, taking into account national legislation and sovereignty

According to Robedo et al., (2008), one of the major concerns relating to the effective implementation of REDD+ is governance[138]. Much of the current deforestation and forest degradation is occurring because of poor governance structures where non-Annex I countries have to deal with activities like illegal logging or land conversion. In contrast, in other countries where governance structures are solid, the main problem is that other activities like farming, logging or agriculture, provide much more income than the conservation of forests. However, it is known that improving governance is an inherently political process (at a national level), and is likely to face powerful opposition from those benefitting from the *status quo*[139].

Moreover, before understanding the role of this safeguard, it is important to understand the difference between government and governance. According to Rosenau "government is not a synonymous of governance[140]'; government refers to activities that are supported by formal authorities like police powers, with 'command-and-control' actions, to ensure their implementation of according to constituted policies. These policies are built and implemented with a 'top-down' approach. Governance, however, refers to activities supported by shared goals (positive socially and environmentally REDD+ outcomes) that may or may not derive from legal and formally prescribed responsibilities that do not necessarily rely on police powers to overcome defiance and attain compliance[141]". According to the author, a governance structure embraces governmental institutions, civil society organizations, the private sector and others within its competence, to satisfy their interests, needs and fulfil their wants[142]. In other words, governance structures can work only if they are accepted by the majority of people[143].

Considering the above definition, countries need to develop a governance structure that goes beyond the government and in which other sectors of society are actively included or 'accepted by the majority'. This will allow the development of transparent and efficient processes. With this idea in mind, REDD+ offers a strong basis to develop, reform and strengthen forest governance structures as it includes empowering local institutions from different actors like the private sector, forest-dependent communities, NGOs and others, to deliver forest conservation[144]. The establishment of this safeguard and the complementary coordination with international

[138] Springate-Baginski, O., & Wollenberg, E. (2010). *REDD, forest governance and rural livelihood*. Bogor, Indonesia: Center for International Forestry Research- CIFOR. (p.6)

[139] Ibid. (p.6)

[140] Rosenau, J. N. (1992). Governance, order and change in world politics. In J. N. Rosenau & E.-O. Czempiel (Eds.), *Governance without government: Order and change in World Politics*. Cambridge, UK: Cambridge University Press.

[141] Ibid.(p.4)

[142] Ibid. (p.4)

[143] Ibid. (p.4)

[144] Clements, T. (2010). Reduced Expectations: The political and institutional challenges of REDD+. *Orynx, 44*(3), 309-310. doi:10.1017/S0030605310000712 (p.310)

frameworks and other sectors' initiatives could improve the effectiveness and efficiency in the implementation[145] of REDD+ at a national level. However, it is important to analyze who should be in charge of promoting the empowerment of these other institutions to develop transparent and efficient forest governance structures.

3.3.1.3 Respect for knowledge and rights of indigenous people and local communities, by taking into account the UN Declaration on the Rights of Indigenous Peoples

Forests play a dynamic role in the life and culture of people around the world. The veneration and respect of trees has strong psychological and social grounds in most human cultures[146]. The diversity of cultural values and symbolic meanings attributed to forests are as abundant and diverse as the communities and cultures around the world[147]. For example, in West Africa, the location where chiefs sit under big trees is a place where political, social and judicial decisions are made. In Central Africa, a tree is planted for every new born child and, if female, a fast growing tree is planted. The child's development is linked to the tree growth[148]. These cultural and spiritual values, as well as their ancestral rights for the land, are what forest-dependent communities are fighting for. Many of these communities lack secure land titles. This insecurity makes REDD+ a potential threat to their livelihoods as it is thought that carbon markets will increase the value of forests, making them more attractive to investors or powerful elites who could expropriate them. Other threats are related to land restrictions from different activities within the forest like the claimed benefits from ES for carbon storage[149]. For that reason, REDD+ should consider not just mechanisms to guarantee tenure rights, forest use and carbon rights but also how to implement the UN Declaration on the Rights of Indigenous Peoples.

3.3.1.4 Full and effective participation of relevant stakeholders in particular indigenous people and local communities.

This safeguard is related to the participation of other different actors, but emphasizes the participation of forest-dependent communities. Special attention has been given to these communities as in the past they have been excluded from many processes relating to the management of their land. For that reason, discussions and negotiations of REDD+ have concluded that the involvement of these communities is imperative and it has been proposed to use free prior inform consent (FPIC) procedures.

In the analysis of processes of communities' participation, Arnstein (1969) has stated that "citizen participation is citizen power", as it is the redistribution of power that enables the have-not citizens, presently excluded from the political and economic processes, to be deliberately included in the future. The author mentioned that citizen participation is the strategy by which the have-nots join in determining how information is shared, goals and policies

[145] Roe, S., Streck, C., Pritchard, L., & Costenbader, J. (2013). *Safeguards in REDD+ and forest carbon standards: A review of social and environmental and procedural concepts and application*: ClimateFocus.(p.3)
[146] Coder, K. (1996). *Trees and humankind: Cultural and psychological bindings*. Georgia, USA: The University of Georgia. (p.1)
[147] Ibid. (p.1)
[148] UNFF. (2011). *Forest and culture*. New York: United Nations Forum on Forests-UNFF.
[149] Mackenzie, C. (2012). *REDD+ social safeguards and standards review*. Vermont: Forest Carbon, Markets and Communities Program (FCMC). (p.9)

are set, programmes are operated and benefits are shared. In other words, it is the means by which they can induce significant social reforms which enables them to share the benefits of the affluent society.

The author presented “the ladder of citizen participation” as shown in figure 3-2:

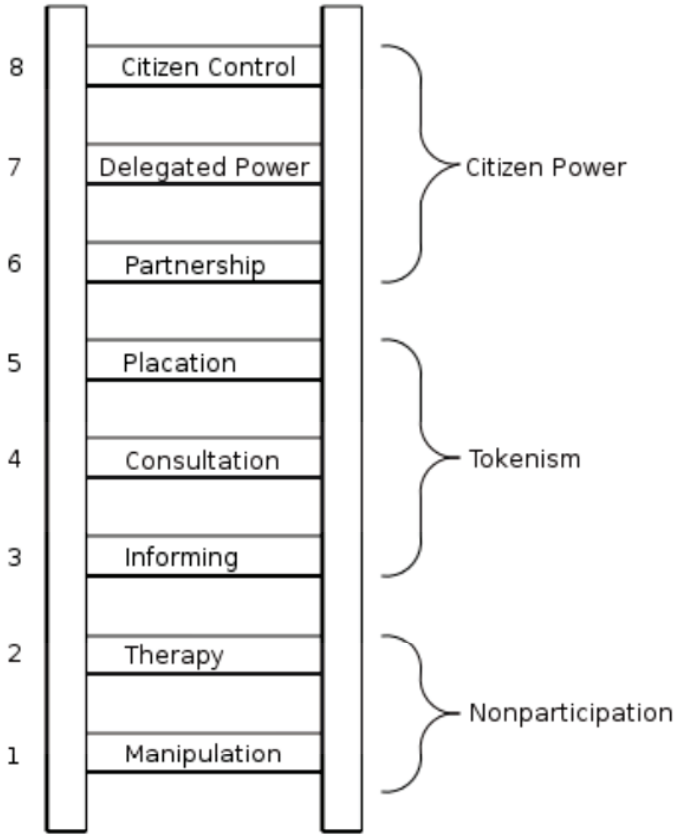

Figure 3-2 Eight rungs on the ladder of citizen participation

Source: Arnstein, Sh. (1969). A ladder of citizen participation. *JAIP 35(4)*. 216-224

The bottom rungs of the ladder are the (1) manipulation and (2) therapy. These two rungs describe levels of “non-participation” that have been used by some to substitute the genuine participation. The real objective within these two is not to enable people to participate in planning or conducting programs, but to enable power holders to “educate” or “cure” the participants. Rungs 3 and 4 progress to levels of “tokenism” that allow the have-nots to hear and to have a voice: (3) informing and (4) consultation. When they are proffered by power holders as the total extent of participation, citizens may indeed hear and be heard. But under these conditions they lack the power to insure that their views will be heeded by the powerful. When participation is restricted to these levels there is no following-through, no “muscle” hence no assurance of changing the status quo. Rung (5) placation is simple a higher level to tokenism because the ground rules allow have-nots to advise, but retain for the power holders the continued right to decide.

Further up are the levels of citizen power with increasing degrees of decision-making clout. Citizens can enter into a (6) partnership that enables them to negotiate and engage in trade-offs with traditional power holders. At the topmost rungs, (7) delegated power and (8) citizen control, have-not's citizens obtain the majority of decision-making seats, or full managerial power. Knowing these gradations makes it possible to cut through the hyperbole to understand the increasingly strident demands for participation form the have-nots as well as the gamut of confusing responses from the power holders.

The use of the "ladder of citizen participation" relates to the process of FPIC that has as the main goal to establish the participation of communities in local and development projects within their territories. The topic of FPIC and what constitutes significant participation in REDD+ is questionable. Since 1960, scholars have proposed and developed several scales for evaluating the degree of true local participation in conservation and development projects. Arnstein (1969) points out that "practitioners tend to describe a range of interactions with local stakeholders as 'participation' ranging from non-participation (manipulation), to tokenistic consultations, to genuine forms of participation, such as 'partnership', "delegated power" and "citizen control"[150]. Consistent with Arnstein's point of view, Lawlor characterizes participation in REDD+ along a seven-scale gradient (Figure 3-2).

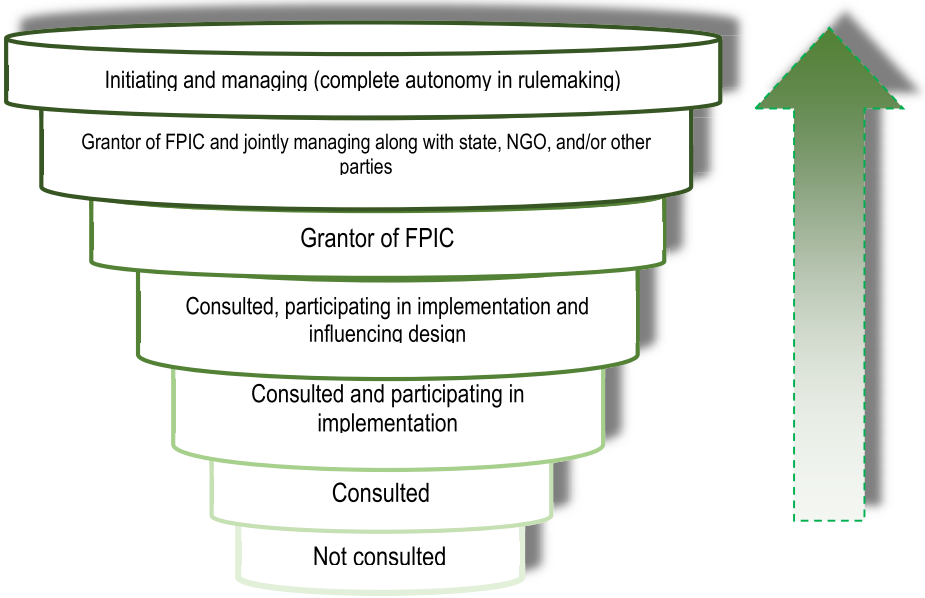

Figure 3-3 Scale of participation in REDD+ projects

Source: Lawlor, K., Myers, E., Blockhus, J., & Ganz, D. (2013). Community participation and benefits in REDD+: A review of initial outcomes and lessons. *Forests, 4*, 296-318. (p.300)

pilot projects. According to the author, when communities are not consulted (bottom of the figure) they are more

[150] Lawlor, K., Myers, E., Blockhus, J., & Ganz, D. (2013). Community participation and benefits in REDD+: A review of initial outcomes and lessons. *Forests, 4*, 296-318. (p.299)

likely to develop a feeling of rejection towards the project. On the other hand, when communities are not just participating, but actively involved in the processes of implementation, better results can be expected, as demonstrated by past experiences in other forest management programmes. However, as every REDD+ pilot project differs one from another, even in the same country, who can guarantee a real process of participation through FPIC methods?

3.3.1.5 Conservation of natural forests and biological diversity, ensuring actions are not used for the conversion of natural forests, but to incentivise the protection and conservation of natural forests and their ecosystem services, and to enhance other social benefits.

Through this safeguard, natural forests and their ecosystem services are protected and conserved while other social benefits are achieved at the same time. Poor design and implementation of REDD+ could result in the loss of substantial opportunity costs through[151] the loss of forest resources, ecosystem services and biodiversity. For example, when projects do not consider the implementation of economic alternatives for forest-dependent communities but just place restrictions on land use, their need for survival could be turned into actions against the protection and conservation of forests. For that reason, the design of REDD+ pilot projects should consider the participation of forest-dependent communities in order to understand these communities' needs, their relationship with the forests and to know how the forests have been protected and conserved in the past. This safeguard will guarantee that other ecosystem services are also considered and valued, which could also attract other kinds of investors who are more inclined to contribute when taking into consideration a wide range of social and environmental benefits.

The conversion of primary or naturally regenerated forest into plantations has always been contentious within REDD+ negotiations. Advocates of tree farms have highlighted the very high rates of wood production achieved on model plantations around the world (e.g. Aracruz in Brazil) and claimed that these "fastwood' farms can deliver important economic and ecosystem services[152]. According to Gibbard et.al. (2005) considerable amounts of carbon can be sequestered through these farms due to their rapid rates of growth, enough that tropical 'fastwood' farms could offset a substantial amount of the carbon emissions from the consumption of fossil fuels[153]. Because of this, the conversion of natural forests into plantations could be seen as a profitable activity, even though researchers like Liao et al., (2010), have stated that plantations tend to sequester and store 28% less carbon than natural forests, creating a 'carbon debt'[154]. However, it is known that on a global scale many natural forests have been converted into plantations. In just 45 years, oil palm plantation areas have changed from 3.6 million ha in 1961, to

[151] Christophersen, T., & Stahl, J. (2011) REDD plus and biodiversity. *Vol. 59*. Montreal, Canada: Secretariat of the Convention on Biological Diversity (CBD), ibid. (p.26)

[152] Rudel, T. (2009). Tree farms: Driving forces and regional patterns in the global expansion of forest plantations. *Land Use Policy, 26*(3), 545-550.(p.545)

[153] Gibbard, S., Caldeira, K., Bala, G., Phillips, T., & Wickett, M. (2005). Climate effects of global land cover change. *Geophysical Research Letters, 32*(23), ibid. (p.3)

[154] Christophersen, T., & Stahl, J. (2011) REDD plus and biodiversity. *Vol. 59*. Montreal, Canada: Secretariat of the Convention on Biological Diversity (CBD).(p.23)

13.2 million ha in 2006, with Malaysia and Indonesia being the world's largest palm oil producers[155]. Research in those countries showed that the conversion of natural forests into palm oil plantations has resulted in significant biodiversity losses[156].

It has also been discussed that this could create a perverse incentive that would undermine the protection[157] of the forests. REDD+ schemes are based on reducing deforestation compared to a baseline of recent or predicted deforestation rates. So, the idea behind this so called perverse incentive is that it may reward better-off 'deforestation agents' such as cattle ranchers, or logging companies with high deforestation rates[158], rather than forest communities who have been using sustainable forest practices to protect and conserve the forest, and who have low deforestation rates.

This safeguard needs to be properly implemented in order to benefit those who have been using sustainable forest practices in natural forests and that, by doing this, they also conserve the biodiversity of the area. However, it could also be used to change behaviour towards those activities that promote the conversion of natural forests.

3.3.1.6 Actions to address the risk of reversals

Carbon stored in terrestrial sinks like forests and soils is vulnerable to 're-emission' when disturbed by natural phenomena or anthropogenic activities (removals)[159]. Adjusting for the risk of reversals protects the environment, as it seeks to ensure the 'permanence' of any GHG emission reduction[160]; in other words, carbon storage in trees will be lifelong. If this carbon has already been accounted for and has received emissions reductions credits and non-permanence occurs, this is considered a 'reversal'[161].

Risks of reversals occur when in five circumstances[162]:

(1) Natural processes like storms, droughts, natural fires and pests could affect the permanence of carbon storage;

(2) Climate change that may lead to systematic carbon losses in certain regions;

(3) Demand-side risks like agriculture. In several regions, agriculture is the main driver of deforestation and, with an increase in the prices of agricultural products, this could drive up opportunity costs to levels above the carbon prices agreed, making forest conversion more profitable;

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[155] Ibid.(p.23)
[156] Ibid. (p.23)
[157] Ibid. (p.22)
[158] Brown, M. (2010). Limiting corrupt incentives in a Global REDD regime. *Ecology Law Quarterly, 37*, 237-268.
[159] BioCarbon-Fund. (2011). *Addressing carbon reversal risks from LULUCF activities. New Approaches for projects and potential large-scale mitigation activities*. Washington, DC.: World Bank Carbon Finance, Duke University.
[160] Rey, D., Roberts, J., Korwin, S., Rivera, L., & Ribet, U. (2013). *A guide to understanding and implementing the UNFCCC REDD+ safeguards.* London, United Kingdom: ClientEarth. (p. 70)
[161] BioCarbon-Fund. (2011). *Addressing carbon reversal risks from LULUCF activities. New Approaches for projects and potential large-scale mitigation activities*. Washington, DC.: World Bank Carbon Finance, Duke University.
[162] Rey, D., Roberts, J., Korwin, S., Rivera, L., & Ribet, U. (2013). *A guide to understanding and implementing the UNFCCC REDD+ safeguards.* London, United Kingdom: ClientEarth.(p. 71)

(4) Weak forest governance that may lead to ineffective project management, insecure land tenure rights, bankruptcy of project partners; and

(5) Political risk when changes in governments may lead to changes in, or reversal of, any prior approvals or commitments.

The main idea with this safeguard is to address those risks at a national level and to guarantee that GHG reductions are sustainable and long lasting[163].

3.3.1.7 Actions to reduce the displacement of emissions

'Carbon leakage' refers to the displacement of GHG emissions from deforestation or forest degradation from one region to another. It is caused by a direct or indirect shift of emission-intense activities from inside to outside an emission accounting system[164]. Carbon leakage could occur at project, national, or international levels. In the former, typical examples are forest conservation activities that reduce deforestation from subsistence production, e.g. shifting agriculture, cultivation or fuel wood gathering. In order to produce agricultural crops or obtain the fuel wood needed, local deforestation agents are likely to move to adjacent areas to continue activities[165]. This could be addressed by providing economic alternatives or the provision of areas in which these communities can satisfy their survival needs. In the latter, deforestation agents are internationally operating logging or agribusiness companies in which restrictions on land use make them move their operations to other countries with weak governance structures. This needs to be addressed by strengthening forest governance structures in different countries, especially in non-Annex I countries.

It can be concluded from these sections, that REDD+ social and environmental safeguards are key components not just for the successful implementation of REDD+ scheme, but also for the attainment of the expected positive social and environmental outcomes. Chapter 2 mentioned that COP18 concluded with soft measures for the implementation of these safeguards according to each country's capacity. This means that it depends on each non-Annex I country to implement these safeguards or not. If countries want to achieve the benefits that REDD+ has claimed it can deliver, it is important that the development of a governance structure will allow its implementation and monitoring. The way COP18 concluded does not guarantee an effective implementation of these safeguards that are in the hands of actors involved in the design and implementation of REDD+ at national and local levels. The following section analyzes the actors involved in REDD+ schemes.

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[163] Ibid. (p. 71)

[164] Focali. (2012). Accounting for carbon leakage from REDD+ are current quantification methods suitable? *Focali Brief* (Vol. 01). Sweden: Forest, Climate, and Livelihood Research Network-FOCALI.

[165] Henders, S., & Ostwald, M. (2012). Forest carbon leakage quantification methods and their suitability for assessing leakage in REDD. *Forests, 2*, 33-58. (p.37)

3.4 Actors involved in REDD+ schemes.

The implementation of REDD+, as any other PES scheme, is only possible if there is demand for the specific ES. Therefore, the first step of a PES is to identify sellers willing to enter into PES transactions, and buyers of the specific ES[166]. In order to start with a transaction, it is necessary to have a clear identification and calculation of the ES and a valuation of the existing demand for those services[167]. According to Myarand & Paquin (2004), with this information, it is easier to persuade buyers to take part in the PES scheme when the costs and benefits of ES are visible and quantifiable[168].

As described previously, in a PES scheme buyers of the ES are usually industries, companies and organizations that would benefit from the conservation of the ES, like hydropower industries, farming and irrigation companies; and sellers are those providing and maintaining the flow of the ES service. However, in the case of REDD+ pilot projects, things get more complicated.

The literature on REDD+ has highlighted the participation of very different actors at various levels. Buyers can pretend to be non-Annex I countries that need to offset their emissions of GHG in order to comply with international or national laws; and can do so more cost-effectively by purchasing an ES rather than by alternative means. In REDD+ pilot projects, sellers of ES are NGOs managing protected areas who have seen in the scheme an opportunity to receive economic benefits for activities they have already been doing, like sustainable forest management. These NGOs are intermediaries between buyers and forest-dependent communities who live within these areas and who the theory describes as the sellers of the ES.

In addition to buyers and sellers, there are also third parties who provide technical assistance in the development of the required technical documents for the validation and registration at the international level (international markets), of the stored carbon within the projects. These technical documents are required by international standards and some are based on the decisions made by parties of the UNFCCC during the COPs. As can be seen, actors involved in REDD+ as a PES scheme are more than those identified by Wunder and this simple mechanism, as described when was proposed, turns out to be a multi-level multi-actor scheme, as illustrated in Figure 3-3.

[166] Mayrand, K., & Paquin, M. (2004). *Payments for environmental services: A survey and assessment of current schemes*. Montreal: Unisfera- International Centre. (p.16)
[167] ibid. (p.16)
[168] ibid. (p.16)

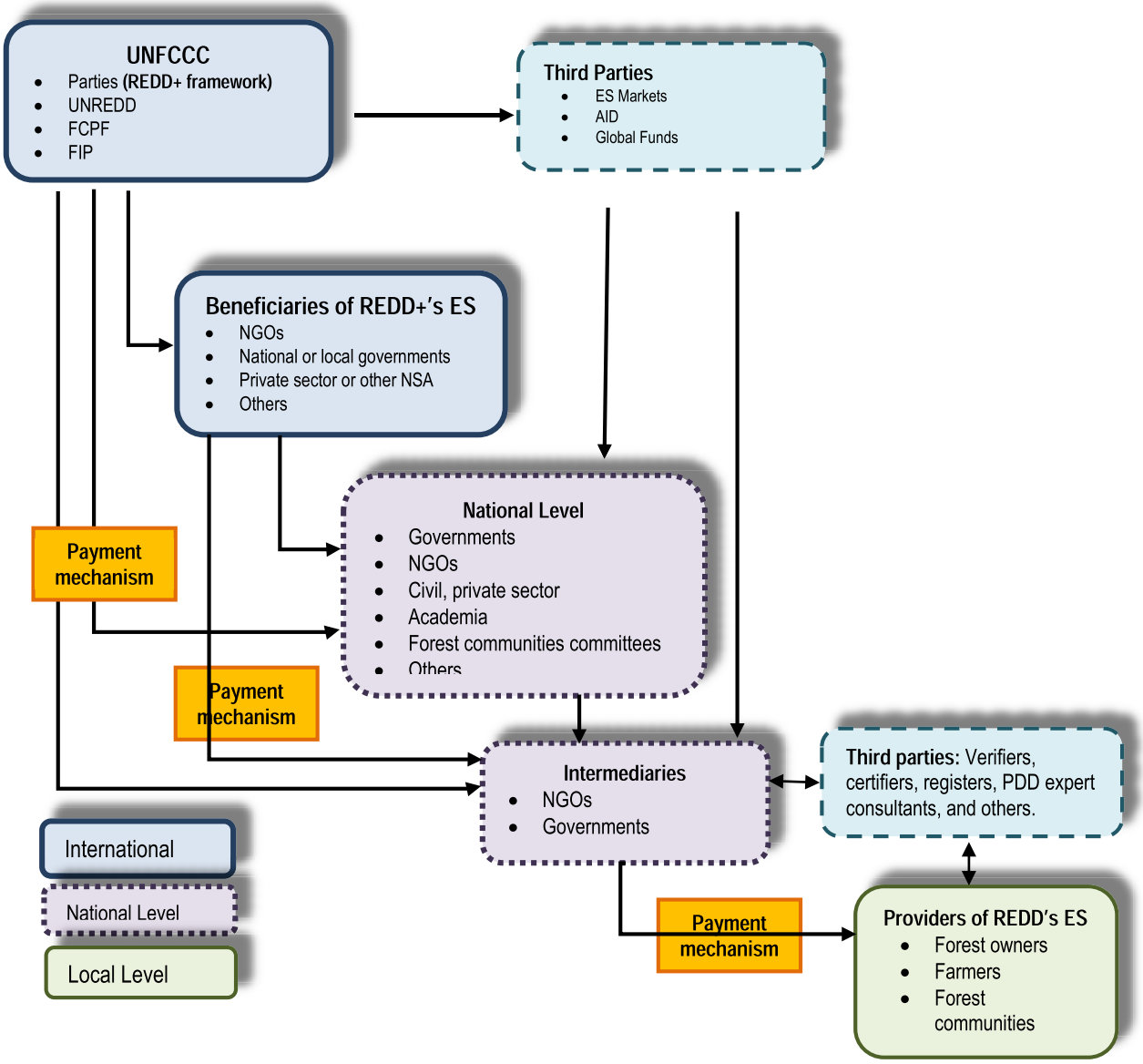

Figure 3-4 Actors and levels of participation in REDD+ scheme

It is important to mention, that for the purposes of this research, I will emphazise the analysis for the implementaion of REDD+ actions at national and local level only, as the international level depends on the decisions made during the annual COPs. However, the analysis of these decisions will be considered as they have an important role to play at the national and local level activities.

3.5 REDD+ processes: politics and power

REDD+ involves many interests from many different sectors and with many different ways and methods of influencing decisions. DiGregorio et.al (2012) explained that REDD+ requires the following conditions to overcome political and economic hindrances[169]. These conditions are:

(i) *Autonomy of nation states from powerful actors with different agendas that drive deforestation and forest degradation:* When referring to autonomy of the state it means the degree to which state actors can make policy decisions independent of various sectors[170]. According to DiGregorio et al. (2012), a state must be able to tolerate lobbying pressures from sectors that profit from land use change activities like forest exploitation, farming, cattle and others, in order to allow progress on the implementation of projects. In that sense, states need to go 'hand in hand' with inclusive policy processes with the purpose of serving a broader section of society[171]. However, in addition to national lobbying pressures, states also need to identify those transnational companies seeking for weak governance structures in which to develop their companies or industries. In this regard, the autonomy is not just for nation states but also for individual projects

(ii) *Ownership over REDD+ processes at national and local level:* Ownership of REDD+ processes, in their general context, is essential in order to implement the necessary actions. This ownership needs to be built and enhanced at both local and national levels. Ownership at the local level, means that forest dependent peoples and communities will stay in control of their projects and of the processes and decisions that involve their land; this is considered a bottom-up approach. Ownership at the national level means that different sectors will have knowledge about REDD+ and will be willing to support and implement the necessary actions.

(iii) *Inclusive processes of design and implementation:* as has already been stated, the inclusive participation of different REDD+ stakeholders, especially of forest dependent peoples is very necessary for the success of REDD+.

(iv) *"A transformational change"* or, in other words, *"a shift in discourse, attitude, power relations, and thoughtful policy that leads to policy development and implementation away from 'business as usual' policy approaches that directly or indirectly support deforestation and forest degradation[172]".* This transformational change was proposed by Brockhaus & Angelsen (2012) and could be achieved only if different sectors with different agendas find a common ground to work together. The authors explained that this transformational change

[169] DiGregorio, M., Brockhaus, M., Cronin, T., & Muharrom, E. (2012). Politics and power in national REDD+ policy process. In A. Angelsen, M. Brockhaus, W. Sunderlin & L. Verchot (Eds.), *Analysing REDD+. Challenges and choices* (pp. 69-90). Bogor, Indonesia: CIFOR. (p.71)

[170] Ibid. (p.74)

[171] DiGregorio, M., Brockhaus, M., Cronin, T., & Muharrom, E. (2012). Politics and power in national REDD+ policy process. In A. Angelsen, M. Brockhaus, W. Sunderlin & L. Verchot (Eds.), *Analysing REDD+. Challenges and choices* (pp. 69-90). Bogor, Indonesia: CIFOR. (p.74)

[172] Brockhaus, M., & Angelsen, A. Ibid.Seeing REDD+ through 4Is. A political economy framework. In , ibid.Brockhaus, M., & Angelsen, A. (2012). Seeing REDD+ through 4Is. A political economy framework. In A. Angelsen, M. Brockhaus, W. Sunderlin & L. Verchot (Eds.), *Analysing REDD+. Challenges and choices*. Bogor, Indonesia: CIFOR (p.15)

and its activities are surrounded in and interpreted by, changes in major formal and informal institutions relevant to REDD+ implementation, which also includes changes in coordination and transparency across multiple levels of governance[173]. However, non-Annex I countries need more than a transformational change, they need what Rosenau and Czempiel (1992) describe as a 'governance without a government' structure in which these conditions can be developed.

Although governance is different from government[174], both include changes in behaviour, goal-oriented activities, and systems of regulations. Governments put forward activities that are supported by official authorities like police powers to ensure the implementation of policies, while governance denotes activities backed by shared goals that may or may not originate from legal and formally agreed responsibilities, and that do not necessarily rely on police powers to accomplish compliance[175]. With this definition of governance in mind, it could be said that this is the kind of structure that REDD+ needs to have in order to attain the claimed outcomes. However, how states are going to develop a 'governance without government' structure is still debatable.

Researchers have found that top-down and command-and-control approaches for natural resource management have proven unsuccessful and ineffective[176]. There is, then, no good reason to believe that using the same approach with REDD+ will be the exception. Rosenau and Czempiel (1992) explained that governance involved the dispersion of power among key actors with no hierarchical differences among them and with rules that bound their interactions and premises about the role of diplomacy, cooperation and conflict[177]. Implementing this kind of governance structure for REDD+ means that participation and autonomy could be strengthened and ownership of the scheme could be developed. However, the participation of the government within this governance structure should also be considered.

To a certain extent, the previous conditions proposed by DiGregorio et al., (2012) are important and necessary to develop in order to implement REDD+ and achieve the claimed outcomes. However, these are not the only conditions that are required and many others could be developed to guarantee a successful implementation of REDD+ scheme. The following section analyzes the identified assumptions on which REDD+ has been constructed.

3.6 Assumptions on which REDD+ and other PES schemes are based

REDD+ has been built under assumptions many of which proves that PES theory is not perfect. From its evolution many key issues have appeared that have shaped the actual framework of the scheme. Indeed, some of these key

[173] Ibid.(p. 17)
[174] Rosenau, J. N. (1992). Governance, order and change in world politics. In J. N. Rosenau & E.-O. Czempiel (Eds.), *Governance without government: Order and change in World Politics*. Cambridge, UK: Cambridge University Press. (p.4)
[175] ibid. (p.4)
[176] O'Sullivan, R., Streck, C., Pearson, T., Brown, S., & Gilbert, A. (2010). Engaging the private sector in the potential generation of carbon credits from REDD+. An Analysis of Issues. Galsgow: UK Department for international Development DFID. (p.8)
[177] Rosenau, J. N. (1992). Governance, order and change in world politics. In J. N. Rosenau & E.-O. Czempiel (Eds.), *Governance without government: Order and change in World Politics*. Cambridge, UK: Cambridge University Press (p.5)

issues have been considered in this chapter as essential for the successful implementation of the scheme. Many of these key issues are based on social, economic, political and institutional assumptions that each non-Annex I country should have and that could influence the attainment of the outcomes. It is important to highlight that these assumptions are national-local oriented. These are:

Assumption 1: Commodification of nature is accepted

This assumption relates to the idea that it is acceptable to isolate a particular environmental function (service) and to assign 'ownership' over that function by a particular group (in this case to forest-dependent communities). The idea is that this 'service' can be protected in isolation from other environmental functions, and that it is fine to 'privatise and put a price" on this isolated service. However, the alternative view is that these ES are vital collective values that must be protected as a whole in the interest of a community (local, national or global). For example, in the case of forest-dependent communities, forests are a means of living and also provide security for households in times of shortage. For that reason, these groups consider the importance of forests as a whole and value them not just for their immediate benefits, but also as assets on which people can rely in the future. For many communities, forests are central to their cultural and spiritual identity[178].

Assumption 2: Land tenure and property rights are reform or well established

Scholars believe that REDD+ is an opportunity to mend what has been considered to be an enduring social injustice and to demand land tenure, as well as other forest rights, for forest-dependent communities as a prerequisite for engaging in REDD+[179]. However, this depends to whom these property rights are assigned. Many forested areas in non-Annex I countries are managed by the state; and many forest-dependent communities live and rely on these forest resources for their survival. Even though some countries started a process of providing land titles, as REDD+ has proposed, this does not mean that forest communities will benefit from these titles. For that reason, REDD+ is also seen as a threat to these forest-dependent communities. The assumption lies in the idea that while implementing REDD+, countries will also implement its social and environmental safeguards, and this will guarantee the protection of land tenure for these communities.

It is important to consider with this assumption that many non-Annex I countries face high rates of corruption, and land tenure has always been a topic of interest for illegal activities. In that regard, one risk is that corrupt governments could hand over these rights to the "highest bidder", especially when constant political changes occur and corrupt public servants have little or no time to carry out long term illegal transactions. REDD+ negotiations have tried to address this topic; however, as it was seen in the last COP of UNFCCC, the topic of social and environmental safeguards not to be monitored, but instead, it was just to report on how countries will implement these actions.

[178] Landell-Mills, N., & Porras, I. (2002). *Silver bullet or fool's gold? A global review of markets for forest environmental services and their impact on the poor.* London: International Institute for Environment and Development (IIED). (p.14)

[179] Mackenzie, C. (2012). REDD+ social safeguards and standards review. Vermont: Forest Carbon, Markets and Communities Program (FCMC). (p,9)

These assumptions will be very difficult to put in practice in a legal way to benefit those who have been living in these forests for decades. The topic of land rights is surrounded by many interests from many powerful groups that will try hard to push forward their own interests.

Assumption 3: Willingness to participate after an effective consultation process

REDD+ has been developed under the assumption that forest-dependent communities will be willing to participate in REDD+ processes, as it is also assumed that they will know and understand their responsibilities and possible benefits. However, this assumption implies many things: First, it considers that states will go through an accurate process of FPIC which consists of inclusive participation in all the processes including decision making capacity. However, the interpretation of 'consent' and 'consult' have caused considerable disagreements among project developers and forest-dependent communities, as the latter expects their full consent for the implementation of projects within their territories, and the former have not included them for several reasons like a lack of financial and technical capacity for the full development of FPIC processes, a lack of consensus in the past and to avoid expectations of uncertain outcomes. According to Mackenzie (2012), in REDD+, the realization of FPIC is a continuing process rather than a single event and it needs time, and human and financial resources, for the careful management of awareness raising and engagement with communities, local authorities and other key stakeholders[180]. And secondly, it is assumed that forest-dependent communities will be willing to participate because of the possible social benefits they could receive. These possible benefits are, at present, of an uncertain nature and scope and may not be enough to weigh up against the possible (and real) risks and costs. Even so, their willingness to participate is not a guarantee that they will benefit from the scheme.

Assumption 4: Political willingness and ownership for the implementation of PES scheme (including REDD+)

According to countries participating in the negotiations of the UNFCCC, governmental representatives of non-Annex I countries are willing to collaborate with national efforts and processes for the development of the required political instruments that could ease the process of implementation of REDD+ schemes. However, many of these commitments are not usually implemented and stay just on paper; and the main reason for this lies in the fact that many non-Annex I countries are politically unstable. Countries like Guatemala have changes in the political administration every four years, and this means new staff, new ideologies, new policies, programmes, strategies and norms. With the arrival of a new political administration, many processes stop due to a lack of trust about the projects implemented by the previous political party. The uncertainty of what is the right thing to do, lack of knowledge and capacity to manage certain topics, change of ideology towards projects already implemented or because funds and staff are directed towards other projects, is what weakens any process. Because of this

[180] Mackenzie, C. (2012). REDD+ social safeguards and standards review. Vermont: Forest Carbon, Markets and Communities Program (FCMC). (p.14)

instability many projects have failed even before achieving the expected results. For this reason, the ownership of projects, not just by the state but by other actors, is essential in order to attain the expected results.

Assumption 5: Institutional capacity at local, national and international level

According to what has been discussed here, non-Annex I countries will strengthen their institutional weaknesses in order to have the necessary institutional capacity, together with the human and financial resources for the implementation of REDD+ scheme to achieve the expected outcomes. However, this assumption is also connected with the previous one regarding political willingness and ownership for the implementation of REDD+, as funds are needed for this institutional strengthening; but it is also important to analyze to what extent the costs associated with that outweigh the benefits for doing so. REDD+ is a multi-level scheme and negotiations go from the local to international level but, until today, public institutions have proven to be deficient and lack of commitment to these negotiations. For this reason, institutional capacity is essential for an efficient implementation of the scheme at national and international levels where negotiations and final decisions are being made.

Assumption 6: Economic viability and equitable distribution of benefits

According to what has been discussed about REDD+ schemes, forests will be more valuable standing than they would be cut down because of the financial value of the carbon stored in the trees. This implies that projects will have solid economic viability in their design and implementation in regard to the costs involved and also the provision of economic incentives for all the parties involved. It also implies that the total income derived from REDD+ scheme will be sizeable enough to make it attractive for all parties (also assuming a distribution of benefits that confirms these expectations).

This assumption has a huge challenge, as it anticipates substantial economic viability in order to address not just the technical requirements that forest carbon projects have, but also that the benefits will be large enough to require an equitable distribution. The literature has shown the costs related to the development of forest carbon projects, and the reality is, that the future of REDD+ schemes under these circumstances (costs of implementation) does not seem very realistic or achievable. To enhance the economic viability of REDD+, the international market for forest carbon projects needs to have a huge demand, which does not exist at present.

Assumption 7: Economic flow (national and international) of forest carbon markets

This assumption is closely related to the previous one; however, this has an international focus. An international economic flow of forest carbon markets implies an active market and that could be achieved, just, if REDD+ is approved as a legally-binding international agreement. By having this officially approved, Annex I countries will need to comply with its commitment to reductions (considering that REDD+ will be approved as an offset mechanism) and that will ignite the regulatory forest carbon market. In addition, and related to the previous assumption, is that this forest carbon market will also need to have an attractive price (for sellers and buyers) to keep the market alive, and to provide of the benefits it has claimed.

However, until now, the future of REDD+ seems blurred. Negotiations and discussions of many key issues and aspects are still on the table, and REDD+ has not been officially approved. Even with this status at the international level, many non-Annex I countries have already started with readiness actions to develop and implement REDD+ pilot projects. Considering this, it is important to analyze, what are the chances that REDD+ could effectively deliver the expected outcomes as the international forest carbon market has not yet been initiated?

It can be said that these assumptions provide a basis of what to expect from a REDD+ scheme; however, this is not the only scheme. This suggests that it is neccesary to keep exploring about the extent to which these assumptions have proven to be realistic or not.

3.7 Conclusion

The evolution of REDD+ under the theory of PES schemes have provided information about the key issues and assumptions that need to be critically analyzed for the achievement of the claimed 'win-win-win' outcomes. This information can be analyzed through three different components: (1) processes; (2) actors; and (3) conditions

Regarding processes, REDD+ has been has been described as a challenging scheme in which various actors are involved with the aim of receiving benefits. All these attributions influence the different processes of design and implementation. The previous chapters have identified key issues in REDD+ that have influenced the development of the scheme. These key issues have been addressed in the Cancun Agreements. However, as yet, many of these key issues of how to implement them have not been resolved; and, as a consequence, it can be said that REDD+ has been built under assumptions of how things must work in order to implement the scheme and achieve the 'win-win-win' outcomes. These assumptions provide a basis of what is needed to strengthen, to develop and, even, to reform at the local and national levels of non-Annex I countries, and also at international level, which is where everything will originate with the activation of the international market of forest carbon credits (regulated market). It is important to take into account that this market is not perfect and many uncertainties (assumptions) exists around PES theory.

It is important to analyze the common factors or drivers that make it unlikely that REDD+ can, or will, ever produce 'win-win-win' outcomes. According to the 'politics of REDD+' the idea is that the scheme will provide winners, just; but how likely is this as there will always be winners and losers? This depends on how REDD+ schemes are shaped and implemented, in other words, it depends on how governments shape and adopt the processes of this global PES scheme in order to maximize the benefits for many and minimize the costs.

In relation to the second aspect, the theory has described the actors involved by using Wunder's criteria of buyers and sellers of the ES. Although, when analyzing REDD+ theory, it can be seen that this scheme involves many actors from different sectors, with different agendas and different capacities. This is something important to consider and analyze, as every actor expects to gain something from this scheme. The participation of some actors, like

powerful elites, and the non-participation or limited participation of the ones that depend on forest resources needs deeper analysis and consideration. It is important to understand why many projects exclude the participation of forest-dependent communities and what have been the outcomes of this exclusion

In order to address the above aspects, I distilled from the theory a third component, that is, the conditions that are necessary for the effective design and implementation of a REDD+ scheme. The assumptions used as foundations for the development of the schemes need further analysis. For this reason, it is important to research how other PES initiatives have change with the participation of various actors, conditions present in its schemes and what outcomes they have achieved with these.

Even with these key issues, processes, actors and assumptions, I still believe REDD+ is a good idea as it has brought global attention towards the protection of forests worldwide and the concern for the high rates of deforestation and forest degradation in the last fragments of forest cover of the world. Even though there are many uncertainties as REDD+ has been build under the perfect market that PES theory has shown.

I believe it needs further exploration as many of the ideas proposed by different researchers are not feasible to apply in the context of many non-Annex I countries like Guatemala. Through the further research on other PES schemes, including REDD+ pilot projects, many ideas could be identified that could help to address these key issues and assumptions. The following chapter will look more closely at some of the experiences in Latin America with PES initiatives and REDD+ pilot projects. This is where I relate REDD+ to Hamlet's quote "There are more things in heaven and earth, than are dreamt of in your philosophy, Horatio". The rest of this thesis will compare the things "dreamt of in REDD+ philosophy" to the 'more things in heaven, earth and Guatemala's land of trees".

Chapter 4

CASE STUDIES OF REDD+ AND OTHER PES SCHEMES IN LATIN AMERICA

4.1 Introduction

REDD+ and other PES schemes are widely applied in different countries around the world. As yet, there are many emerging initiatives but it is unknown how many of these projects have achieved the social and environmental outcomes PES schemes and REDD+ have claimed they can deliver. The previous chapters have provided information regarding key issues that were identified through the emergence and evolution of REDD+; the theory of PES schemes; and the literature regarding REDD+, which helped to identify the 'foundation' under which the REDD+ scheme has been built. The PES literature suggests three main components influence the implementation of REDD+: (1) the project's context and the assumptions of what countries should do, or have, in regard to this; (2) the actors involved; and (3) the design and implementation processes developed under several assumptions.

With the intention to understand how REDD+ and other PES schemes have been implemented, and how different initiatives have developed in terms of achieving social and environmental benefits, this chapter will analyse six case studies that use different approaches in their implementation that includes national programmes for PES and individual PES projects (some of them PES-like REDD+ pilot projects) at a local level that have already started.

The selected studies for this research are:

(1) ***Bolivia***: Noel Kempf Mercado Climate Action Plan (NKMCAP)
(2) ***Brazil:*** Bolsa Floresta (BF)
(3) ***Costa Rica:*** National Fund for Forestry Finance (FONAFIFO)
(4) ***Ecuador:*** Socio Bosque (SB)
(5) ***Mexico:*** Scolel Te
(6) ***Peru:*** Madre de Dios

Chapter 4 finds that those projects that had succeeded were those that had independent entities implementing the initiatives. On the other hand, I also find that projects implemented by NGOs and governments had less positive outcomes. In these cases, forest-dependent communities knew little about the project and REDD+, and did not participate in any preparatory processes. For that reason, forest-dependent communities rejected the scheme and the actions of project developers.

This chapter will analyse the theory against the practice. Further, it will assess the key issues, assumptions, actors and processes identified in the earlier chapters. This will be done by looking at how each project has been designed and how their performance has been influenced by the conditions proposed by DiGregorio et.al., (2012) and other scholars.

This chapter is organized as follows: Section 2 will analyse REDD+ and PES scheme case studies in Latin America and how each initiative addressed the assumptions identified in the previous chapters. Section 3 will analyse the social and environmental outcomes of each REDD+ initiative, and Section 4 provides conclusions from the chapter.

4.2 REDD+ and other PES schemes: Latin America Case Studies

This section will analyse six case studies of REDD+, and other PES schemes, about to what extent they have achieve or not did not achieve, the social and environmental benefits that were claimed. An analysis will be made from two different scopes: national programmes, as REDD+ intends to have a national scope; and project level, as many countries are already implementing REDD+ pilot projects.

The projects selected where chosen because they provide lessons to be learnt from. Some initiatives have been categorized as successful, while others as not very successful, according to the literature. Within these initiatives there are national programmes and individual projects, however the main focus was on the processes used for the designed and implementation rather that the scale (national or local). In an attempt to obtain the necessary information to analyse how these projects achieved the outcomes, each case study has been analysed according to specific components that are linked with the issues identified in the previous chapter (Figure 4-1). These components are:

(i) *Initiative context:* Analyses the characteristics of each initiative which influences, in one way or another, the accomplishment of the social and environmental goals of the project.

(ii) *Actors:* Studies the actors involved during the different processes and provides an evaluation of their interest in participating.

(iii) *Processes of design and implementation:* Examines how the projects were developed from the beginning, what considerations where taken into account, who participated and who stayed out, and provides more information that could help with the identification of the conditions that influenced the outcomes obtained.

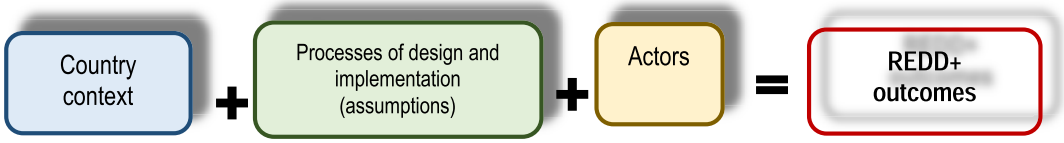

Figure 4-1 Components that influence REDD+ outcomes

The selection of PES schemes and REDD+ pilot projects as case studies was difficult. Initially, I analysed several PES schemes and could not find a common ground for this analysis, as the culture and the political, social and economic context of many countries are different. Even though with these differences, Latin America shares lots of history and common grounds which I used for the selection of criteria for the case studies.

The criteria for the selection of the case studies were based on some:

(1) Latin American initiatives;

(2) National programmes with more than 5 years of implementation of PES schemes;

(3) REDD+ pilot projects that have more than 3 years of been under implementation;

(4) Projects referred to in the literature as being 'more or less' successful, and not successful.

However, before analysing each case study, it is important to evaluate to what extent these projects are really PES schemes. The previous chapter described Wunder's criteria of PES schemes, and Table 4-1 classifies the selected case studies according to these criteria.

Table 4-1 Evaluation of Case Studies

	PES criterion / Case studies	Voluntary	Well-defined ES	Minimum one buyer	Minimum one seller	Conditional payment	Type of scheme	Scope
1	***Bolivia*** Noel Kemff Mercado Climate Action Plan (NKMCAP)	Some	CSS & BS	International	Yes	No	*PES-like REDD+*	*Local*
2	***Brazil*** Bolsa Floresta (BF)	Yes	CSS	Uncertain	Yes	Yes	*PES-like REDD+*	*National*
3	***Costa Rica*** National Fund for Forestry Finance (FONAFIFO)	Yes	CSS, BS, LBS & WS	International & national	Yes	Yes	*PES*	*National*
4	***Ecuador*** Socio Bosque (SB)	Yes	CSS-BS-WS-LBS	Uncertain	Yes	Uncertain	*PES*	*National*
5	***Mexico*** The Scolel-Te project	Yes	CSS	International & national	Yes	Yes	*PES-like REDD+*	*Local*
6	***Peru*** Madre de Dios	No	CSS	Uncertain	Yes	Yes	*PES-like REDD+*	*Local*

Classification of ES
BS: biodiversity services

CSS: carbon storage services
LBS: landscape beauty services
WS: watershed services
Source: adapted from (N. Robertson & Wunder, 2005) (p.30)

The five criteria proposed by Wünder in the theory chapter Chapter 3 are important to consider as they define whether a project is a PES scheme or a 'PES-like' scheme. According to the author, if a project meets the five criteria it can be considered as a PES scheme. Otherwise, as in the cases in Mexico, Bolivia, and Peru, they are 'PES-like' REDD+ schemes.

The following sections will analyse the actions taken by the selected initiatives, and what they have or have not done in order to address the assumptions identified in the chapter on the emergence and evolution of REDD+; and will also discuss the 'win-win-win' outcomes these projects have been achieving. According to these outcomes, the initiatives will be categorized as a dream project if the initiative has achieved positive social and environmental benefits; and a nightmare project if the project has not achieved any social or environmental benefits.

4.2.1 Bolivia- *Noel Kempff Mercado Climate Action Plan (NKMCAP)* –PES-Like REDD+ project

The project is located in the Noel Kempff Mercado National Park in Bolivia. One year before the project began, in 1997, the park was extended as part of a forest carbon contract between three corporations (American Electric Power, Pacificorp and British Petroleum), who paid for the expansion of the park[181]. This additional area was where forest concessions were operating. The project has been implemented by an international NGO (The Nature Conservancy-TNC) and a national NGO (Friends of Nature Foundation –FAN) who co-administer the park with the National Protected Area Service (SERNAP)[182]. The project was expected to sequester 26 million tons of carbon over 15 years (1997-2013) at a cost of US$9.6 million[183]. Of this total, USD1.6 million was used to buy out forest concessionaries and a small amount was paid to buy out private forest owners, both of these were inside the new area[184]. Another US$1.2 was used for community development projects for six forest communities. The rest of the money was allocated to the NGOs co-administering the park; for institutional support for the Bolivian government's climate change office; and other smaller projects (pharmaceutical and ecotourism)[185]. The project created a subsidiary called APOCOM (Apoyo Comunitario), with the aim of assisting forest-dependent communities inside the park by: (i) providing economic alternatives; (ii) capacity building; and (iii) improving healthcare, education and providing legal assistance for communities to secure land tenure and obtain land titles[186].

[181] Robertson, N., & Wunder, S. (2005). Fresh tracks in the forest. Assessing incipient payments for environmental services initiatives in Bolivia. In N. Robertson & S. Wunder (Eds.). Bogor, Indonesia: Centre for International Forestry Research-CIFOR. (p.18)
[182] ibid. (p.18)
[183] Myarand, K., & Paquin, M. (2004). Payments for environmental services: A survey and assessment of current schemes. Montreal: UNISFERA- International Centre. (p.13)
[184] Robertson, N., & Wunder, S. (2005). Fresh tracks in the forest. Assessing incipient payments for environmental services initiatives in Bolivia. In N. Robertson & S. Wunder (Eds.). Bogor, Indonesia: Centre for International Forestry Research-CIFOR. (p.18)
[185] ibid. (p.19)
[186] Asquith, N. M., Vargas, M. T., & Joyotee., S. (2002). Can forest-protection carbon projects improve rural livelihoods? Analysis of the Noel Kempff Mercado Climate Action Project, Bolivia. *Mitigation and Adaptation Strategies for Global Change, 7*, 323-337.

The NKMCAP project has been highly studied but it seems that there are large disparities between the claims of the project's investors and the local communities regarding the social benefits from the project[187]. In relation to the social benefits, and according to research done by Densham et.al., (2009), interviews with community members revealed that forest communities were not informed or involved in the design or implementation of the project and that the social benefits offered (alternative livelihoods, training and new skills) were never received[188], even though reports mentioned that communities had received an indirect series of payments that were not dependent on any local obligation[189]. On the other hand, the socioeconomic assessment of 2005 identified negative impacts engendered by the project, which were: (i) loss of access to resources; (ii) loss of transport and road infrastructure, and (iii) the loss of income from employment and services provided by a sawmill[190] that was closed. According to another researcher (Densham, et al 2009), the timber concessions that provided work for 10 months/year at a salary of $66-133/month/man in 1996 were moved out. The direct loss of income has been attributed to park expansion and it has been calculated to have been from $13,200 - $26,600, in the year immediately after the expansion[191]. However, further research needs to be done as it is not certain whether the loss of income can be ascribed to the park expansion, or whether it was the Bolivian Forestry Law passed in late 1996 who restricted logging activities.

Scholars also mentioned that APOCOM helped the establishment of local village councils and strengthened existing ones which contributed to stronger social capital institutions and networks. However, APOCOM's budget corresponded to less than 10% of the total budget of NKMCAP and was largely directed to compensate concessionaries and other activities to avoid leakage[192]. According to the findings from interviews with community members, NKMCAP had been left unattended and without any management (technical or administrative) for over three years, since the ten-year contract with a local Bolivian NGO for the NKMCAP's daily administration had ended in 2006[193]. As mentioned earlier, this project had many disparities, and even the International Institute for Environment and Development (IIED) showed that, in general terms, REDD+ have been providing, "small and modest impacts on livelihoods"[194] for the NKMCAP project.

In relation to environmental benefits, Densham et.al., (2009) mentioned that NKMCAP did not produce considerable additionality, as was expected. Indeed, carbon storage and biodiversity protection were not as much as claimed in

[187] Densham, A., ZCzebiniak, ????R., Kessler, D., & Skar, R. (2009). Carbon Scam: Noel Kempff Climate Action Project and the Push for sub-national forest offsets. Amsterdam: Greenpeace International. (p.2)

[188] ibid.(p.2)

[189] Robertson, N., & Wunder, S. (2005). Fresh tracks in the forest. Assessing incipient payments for environmental services initiatives in Bolivia. In N. Robertson & S. Wunder (Eds.). Bogor, Indonesia: Centre for International Forestry Research-CIFOR. (p.19)

[190] Densham, A., ZCzebiniak, R., Kessler, D., & Skar, R. (2009). Carbon Scam: Noel Kempff Climate Action Project and the Push for sub-national forest offsets. Amsterdam: Greenpeace International. (p.13)

[191] Asquith, N. M., Vargas, M. T., & Joyotee., S. (2002). Can forest-protection carbon projects improve rural livelihoods? Analysis of the Noel Kempff Mercado Climate Action Project, Bolivia. *Mitigation and Adaptation Strategies for Global Change, 7*, 323-337. (p.328)

[192] Novonty, S. (2010). Payment for Environmental Services in the Amazon Forest: How can conservation and development be reconciled? *The Journal of Environment & Development, XX*(X), 1-20. (p.13)

[193] Densham, A., ZCzebiniak, R., Kessler, D., & Skar, R. (2009). Carbon Scam: Noel Kempff Climate Action Project and the Push for sub-national forest offsets. Amsterdam: Greenpeace International.

[194] Bond, I., Grieg-Gran, M., Wertz-Kanounnikoff, S., Hazlewood, P., Wunder, S., & Angelsen, A. (2009). Incentives to sustain forest ecosystem services. A review and lessons for REDD. London, UK: International Institute for Environment and Development- IIED, CIFOR, World Resources Institute.

the proposal for the project[195]. For example, in relation to the carbon sequestered, it was estimated by project developers to be around 14 million metric tons. However, later reports claimed only seven million tons over 30 years[196] and also reported several environmental impacts that included an increased area under fast-growing exotic species, leakage and unsustainable biodiversity exploitation because of the loss of access to some areas[197].

In general terms, and throughout the analysis of NKMCAP, it can be said that the project has not achieved positive outcomes. Some studies have been developed with different outcomes; however, many of them have mentioned the negative impacts on forest-dependent communities and, because of that, this project could be said to be a 'nightmare project'. Others have reported it as an example for other REDD+ pilot projects to follow[198], and others have even categorized it as a 'scam REDD+ project[199]. However, this project has lessons that can be learnt especially in those areas where other projects have developed specific actions to address the assumptions identified and that this project has not.

4.2.2 Brazil- *Bolsa Floresta (BF)- Local Programme*

Bolsa Floresta was born within the state government (in 2007 by a state law[200]) and initially was managed by the it, then the programme joined forces (2008) with Bradesco (one of Brazil's largest commercial banks) and established the Sustainable Amazonas Foundation (FAS in Portuguese)[201] The programme has focused on a region commonly referred to as the "Deep Amazon", the most conserved part of the Amazonas[202], which means that deforestation rates are historically low, access is difficult and many protected areas are inside the region[203]. The aim of the programme has been to join forces with indigenous populations, who depend on the forest resource, by promoting a means of support and ensuring their basic needs and to keep forests standing to sustain ecosystem services and local livelihoods[204]. Consequently, the programme concentrates on ES in two ways: first, it aims to reward the people responsible for conserving the forest and, secondly, it aims for better use of ES[205]. The programmes comprises four components: (i) *Bolsa Floresta Familiar* in which families receive monthly payments; (ii) *Bolsa Floresta Association* that addresses community organizations; (iii) *Bolsa Floresta Social* that addresses social

[195] Densham, A., ZCzebiniak, R., Kessler, D., & Skar, R. (2009). Carbon Scam: Noel Kempff Climate Action Project and the Push for sub-national forest offsets. Amsterdam: Greenpeace International.

[196] May, P., Boyd, E., Chang, M., & Veiga, F. (2003). *Local sustainable development effects of forest carbon projects in Brazil and Bolivia: A view from the field*. Paper presented at The International conference on Rural Livelihoods, Forests and Biodiversity, Bonn, Germany. (p.10)

[197] Ibid (p.10)

[198] Benz, H. (2007). The Potential for Amazonian Conservation Through Carbon Sequestration: Analysis of the Noel Kempff Mercado Climate Action Plan, Bolivia: Amazon SoCo. (p.8)

[199] Densham, A., ZCzebiniak, R., Kessler, D., & Skar, R. (2009). Carbon Scam: Noel Kempff Climate Action Project and the Push for sub-national forest offsets. Amsterdam: Greenpeace International.

[200] Cassola, R. (2010). TEEB Case: Conserving forests through grants in Brazil.: The Economics of Ecosystems and Biodiversity -TEEB.

[201] Cassasola, R. (2010). Conserving Forests through periodic grants: Bolsa Floresta, Brazil. *The Economics of Ecosystems and Biodiversity -TEEB.* (p.1)

[202] Cassola, R. (2010). TEEB Case: Conserving forests through grants in Brazil.: The Economics of Ecosystems and Biodiversity -TEEB. (p.1)

[203] Viana, V. (2008). Bolsa Floresta (Forest Conservation Allowance): An innovative mechanism to promote health in traditional communities in the Amazon. *Estudios Avancados, 22*(64), 143-153.

[204] Wertz-Kanounnikoff, S., Kongphan-Apirak, M., & Wunder, S. (2008). Reducing forest emissions in the Amazon Basin. A review of drivers of land-use change and how payments for environmental services (PES) schemes can affect them. Bogor, Indonesia: Center for International Forestry Research (CIFOR).

[205]Cassasola, R. (2010). Conserving Forests through periodic grants: Bolsa Floresta, Brazil. *The Economics of Ecosystems and Biodiversity -TEEB.* (p.1)

benefits and; (iv) *Bolsa Floresta Renda* that is used as an alternative source of income in community projects associated with education, health, communication and transport[206].

The findings in Bolsa Floresta suggested that the programme has three major impacts from both the social and environmental aspects. First, as analysed previously it has been enhancing living conditions of populations, as the incentives are expected to directly and indirectly raise local wellbeing. For this aspect, Cassasola (2010) mentioned that it has been compensating (direct monthly payments of roughly USD$ 30/month per participating family named) and financing sustainable livelihood practices in communities living within protected areas who commit to zero net deforestation[207]. Secondly, it has been reducing internally induced forest pressures as incentives to compensate beneficiaries for their opportunity costs of 'buying' conservation; and, thirdly, the programme has been reducing external forest driving forces by increasing local's wellbeing and their self-interest in environmental sustainability and protection[208].

However, other findings have also emphasized the negative social and environmental impacts of the programme that include: on the social aspect, marginalisation of local forest dependent people, unequal businesses and concentration of land tenure; and on the environmental aspect, the risks of the proliferation of areas under fast-growing exotic species and exaggerations in the estimation of carbon emission reductions[209].

In overall terms, it could be said that Bolsa Floresta has achieved social and environmental outcomes, which make it a 'dream project'. However, it is important to ask, what conditions where present in the project and in the region? What has been the programme's major challenge? What are the things that need to change? Many other questions also need to be ask to understand how this programme achieves the REDD+ outcomes.

4.2.3 Costa Rica- *National Fund for Forestry Finance (FONAFIFO)-National Programme*

Costa Rica stands out as one of the first countries in the northern hemisphere that institutionalized state-led, national system of PES. The National Fund for Forest Finance (FONAFIFO in Spanish) was established in 1990 under Costa Rica's forestry reforms and since then it has been responsible for the preservation and reforestation of almost a quarter of Costa Rica's land area. The PES system emerged in Costa Rica as an answer to the necessity to address land use choices on private property[210]. Land owners may participate through different land use modalities, such as: (i) reforestation through plantations; (ii) protection of existing forests; (iii) natural forest regeneration; and (iv) agroforestry systems. However, payment per hectare is uniform across all contracts within

[206] ibid. (p.2)
[207] ibid. (p.1)
[208] Borner, J., Wunder, S., Reimer, F., Bakkegaard, R., Viana, V., Tezza, J., . . . Marostica, S. (2013). Promoting Forest Stewardship in the Bolsa Floresta Programme: Local livelihood strategies and preliminay impacts. . Rio de Janeiro, Brazil.: Center for International Forestry Research (CIFOR), Fundación Amazonas Sustentable (FAS) and Zentrum fur Entwicklungsforshung (ZEF). (p.43)
[209] May, P., Boyd, E., Chang, M., & Veiga, F. (2003). *Local sustainable development effects of forest carbon projects in Brazil and Bolivia: A view from the field*. Paper presented at The International conference on Rural Livelihoods, Forests and Biodiversity, Bonn, Germany. (p.10)
[210] Daniels, A. E., Bagstad, K., Esposito, V., Moulaert, A., & Rodriguez, C. M. (2010). Understanding the impacts of Costa Rica's PES: Are we asking the right questions? *Ecological Economics, 69*(11), 2116-2126. (p.2117)

each modality[211]. FONAFIFO is a semi-autonomous agency that is legally independent and functions as the implementing agency and financial centre for PES schemes. This agency coordinates all activities related to the PES programme and has a governing board with representatives from the public and private sectors[212]. FONAFIFO PES schemes have benefited more than 7,000 small to medium private land owners for the ES their property provides for watershed protection, scenic beauty, biodiversity conservation and carbon sequestration[213]. PES projects in Costa Rica are not designed to be poverty reduction programmes but rather to create opportunities to contribute to this objective[214]. Secondary objectives of PES projects include income generation and employment opportunities for rural populations[215], which could be considered as local development.

In relation to the social outcomes and, as explained previously, FONAFIFO was not designed to reduce poverty in Costa Rica but to contribute new opportunities for social development[216] and this has been achieved as the programme has benefitted many medium private land owners[217]. However, the results for environmental outcomes are not as significant as the social ones. Evidence has shown that forests under FONAFIFO PES schemes were not threatened (REDD+ requirements) and would have been conserved in almost all PES areas even without payments[218]. According to sources, the total area of land gained by FONAFIFO from 1997-2001 was 5% (284,000 ha) of Costa Rica's entire national territory[219], which is not a significant increase. Other studies have found that the gross deforestation rate is the same in PES and non-PES areas of FONAFIFO, which validates the idea that FONAFIFO has not had a significant environmental outcome. The impact on net forest cover represents less than 2% of the average area size[220].

In contrast, MINAET & FONAFIFO (2012) have reported that when considering scenarios with and without the PES scheme programme, and through FONAFIFO, forest protection has increased of about 10% for carbon storage, 11% for biodiversity, 12% for hydroelectric water use, and 13% for potable water[221]. Other authors have mentioned that forest plantations increased from 1% of the biological corridor in 1986 to 15% in 2001. PES participants have

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211 ibid.(p.2117)

212 Bennett, K., & Henninger, N. (2002). Payment for Ecosystem Services in Costa Rica and Forest Law N. 7575. Washington, D.C.: World Resources Institute-WRI (p.4)

213 FONAFIFO, CONAFOR, & Ministry-of-Environment. (2012). Lessons learned for REDD+ from PES and conservation incentive programs. Examples from Costa Rica, Mexico and Ecuador (pp. 164): FONAFIFO, CONAFOR, Ministry of Environment.

214 Pagiola (2005) as cited by Pagiola, S. (2008). Payments for environmental services in Costa Rica. *Ecological Economics, 65*(4), 712-724. (p. 721)

215 Locatelli, B., Rojas, V., & Salinas, Z. (2008). Impacts of payments for environmental services on local development in northern Costa Rica: A fuzzy multi-criteria analysis. *Forest Policy and Economics, 10*(5), 275-285. (p.276)

216 Pagiola (2005) as cited by Pagiola, S. (2008). Payments for environmental services in Costa Rica. *Ecological Economics, 65*(4), 712-724. (p.721)

217 FONAFIFO, CONAFOR, & Ministry-of-Environment. (2012). Lessons learned for REDD+ from PES and conservation incentive programs. Examples from Costa Rica, Mexico and Ecuador (pp. 164): FONAFIFO, CONAFOR, Ministry of Environment.

218 Daniels, A. E., et al. (2010). "Understanding the impacts of Costa Rica's PES: Are we asking the right questions?" Ecological Economics 69(11): 2116-2126. (p.2120)

219 Zbinden, S., & Lee, D. R. (2005). Paying for Environmental Services: An Analysis of Participation in Costa Rica's PSA Program. *World Development, 33*(2), 255-272 (p.258)

220 Pattanayak, S., Wunder, S., & Ferraro, P. (2010). Show me the money: Do payments supply environmental services in developing countries? *Review of Environmental Economics and Policy, 4*(2), 254-274.

221 MINAET, & FONAFIFO. (2012). Costa Rica tropical forests: A motor for green growth: The National Foundation for Forestry Financing (FONAFIFO), Ministry of the Environment, Energy and Telecommunications (MINAET). (p.18)

reported that without payments they would not have reforested their lands, which suggests that PES had some 'additional impacts'[222].

Because of these social and environmental outcomes (even considering there were not many significant outcomes for the environment), FONAFIFO is another initiative that has been highly cited in the literature as a successful PES scheme, and because of that, I will categorize it as a 'dream project'.

4.2.4 Ecuador- *SocioBosque (SB)-National Programme*

Ecuador initiated concrete steps towards developing a national REDD+ programme before the R-PP was approved[223]. In 2009, the Ministry of the Environment (MAE) articulated the national REDD+ programme in a process that was characterized by activities to get Ecuador accepted as member of the UNREDD programme[224]. In October 2009, Ecuador became part of the programme and, by March 2011, the Government of Ecuador (GoE) had received a US$4 million[225] funding allocation for the development of Ecuador's National Programme (readiness phase). Since then, the country has made significant progress in adapting the REDD+ social and environmental standards to the national context within the REDD+ readiness process. The GoE launched SocioBosque as a national REDD+ mechanism in order to avoid the dangers of implementing individual projects or premature initiatives that could generate problems such as leakage or double accounting[226].

SocioBosque offers an annual economic incentive per hectare of forest to individual forest stakeholders or groups of indigenous communities who voluntarily decide to protect the native forest they own[227]. This programme was developed with the assistance an international NGO, Conservation International (CI). A distinguishing feature of SocioBosque is the aim to alleviate poverty, which requires a balance between environmental efficiency and social equity, including actions such as access to the programme and a fair distribution of benefits[228]. To be able to participate in this programme, individual forest stakeholders or groups of indigenous communities have to submit documentation that includes: (i) a copy of their land title they wish to incorporate in the programme; (ii) an investment plan explaining how the community (just for community contracts) will invest the resources provided by the programme; and (iii) signing a contract for 20 years followed by a period of indefinite renewal[229].

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[222] Morse et.al., (2009) as cited by Daniels, A. E., Bagstad, K., Esposito, V., Moulaert, A., & Rodriguez, C. M. (2010). Understanding the impacts of Costa Rica's PES: Are we asking the right questions? *Ecological Economics, 69*(11), 2116-2126. (p.2119)

[223] USAID. (2012). Forest Carbon, Markets and Communities (FCMC) Program. Key findings and opportunities for REDD+ in Ecuador. An abbreviated summary of the comprehensive report on the integrated assessment of REDD+ in Ecuador. Vermont, USA: United States Agency for International Development (USAID).

[224] Núñez, M. (2011). Rights and REDD in Amazonian countries and Paraguay. Systematization of regional workshops. Quito: Rainforest Foundation Norway and Centro de Planificación y Estudios Sociales (CEPLAES). (p.12)

[225] http://www.un-redd.org/AboutUNREDDProgramme/NationalProgrammes/Ecuador/tabid/7073/Default.aspx. Accessed July 16th, 2013.

[226] Núñez, M. (2011). Rights and REDD in Amazonian countries and Paraguay. Systematization of regional workshops. Quito: Rainforest Foundation Norway and Centro de Planificación y Estudios Sociales (CEPLAES). (p.12)

[227] Reed, P. (2011). REDD+ and the indigenous question: A case study from Ecuador. *Forests, 2*, 525-549. (p.533)

[228] Corbera, E., Kosoy, N., & Martínez Tuna, M. (2007). Equity implications of marketing ecosystem services in protected areas and rural communities: Case studies from Meso-America. *Global Environmental Change, 17*(3–4), 365-380.

[229] Reed, P. (2011). REDD+ and the indigenous question: A case study from Ecuador. *Forests, 2*, 525-549. (p.534)

Some of the social outcomes the programme has been achieving are respect for forest-dependent communities' rights. This bottom-up approach has been strengthening the indigenous *cosmovision*[230], or communities' relationship with forests. It has also contributed to strengthening the organizational structures[231]. In addition, the programme has been helping communities to pay for teachers, the construction of educational centres and educational programmes that harmonize with indigenous *cosmovision*. In other cases, incentives are considered as "seed" funds for productive activities that, later, can bring more financial resources[232]. However, indigenous communities do not all feel the same about REDD+ or any other PES scheme. The attribution of a single monetary value to independent ecosystem services, while ignoring the spiritual values of the ecosystem as a whole is what makes the scheme incompatible with some regions of Ecuador[233]. However, as the programme is voluntary, it does not affect those communities who have that spiritual connection with the forests and who do not want to put a price on nature. In relation to environmental benefits, the programme has been achieving a reduction of emissions from deforestation as they have dropped considerably since the programme began. Because of these social and environmental outcomes, SocioBosque could be considered as a 'dream project'.

4.2.5 Mexico- *The Scolel Te Project- PES-Like REDD+ Project*

In 1997, The Bioclimatic Fund Carbon Project (BFCP) was developed in Mexico as a fund for carbon forest projects. It comprises subsistence and semi-subsistence farmers in small-scale forest activities. In 1998, a technical unit named AMBIO was created with the aim of promoting carbon forest projects across the region of Chiapas, building capacity within forest community technicians, dealing with administrative and monitoring procedures of the fund and developing new forest and development-oriented projects[234]. The Scolel Te project is one project funded by the BFCP. It consists of a carbon sequestration scheme based on agroforestry activities in which more than 300 coffee and corn Mayan farmers participate in the project by planting trees on twenty per cent of their land parcels, on average, to absorb carbon. The participants in this project belong to five different Mayan groups and, in spite of their cultural and ecological differences, the participating communities experience similar socioeconomic problems[235]. Although the majority of farmers join the project as individuals, some communities enrol as

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[230] Seiwald, M. (2011). *REDD and indigenous peoples: The programme Socio Bosque by the Ecuadorian Ministry of Environment in the context of the debates around development and climate change.* (Master of Science), University of Salzburg, Salzburg. (p.84)

[231] ibid. (p.83)

[232] Podvin, K. (2013). *Institutional analysis of the Socio Bosque Program. An Ecuadorian forest governance initiative and its interactions with REDD+.* (MSc Forest and Nature Conservation), Wageningen University and Research Centre, Netherlands.

[233] Seiwald, M. (2011). *REDD and indigenous peoples: The programme Socio Bosque by the Ecuadorian Ministry of Environment in the context of the debates around development and climate change.* (Master of Science), University of Salzburg, Salzburg.

[234] Corbera, E. (2005). Bringing development into carbon forestry markets: challenges and outcomes of small-scale carbon forestry activities in Mexico. In D. Murdiyarso & H. Herawati (Eds.), *Carbon Forestry: who will benefit?* Bogor, Indonesia: Centre for International Forestry Research-CIFOR. (p.45)

[235] Ruiz-De-Oña-Plaza, C., Soto-Pinto, L., Paladino, S., Morales, F., & Esquivel, E. (2011). Constructing Public Policy in a participatory manner: From local carbon sequestration projects to network governance in Chiapas, Mexico. In B. M. Kumar & P. K. R. Nair (Eds.), *Carbon Sequestration Potential of Agroforestry Systems: Opportunities and challenges, Advances in Agroforestry 8*: Springer (p.249)

communally-owned forest land in the project[236]. The project has also been promoting women's participation as the area respects their role in managing forest resources and their contribution to forest sustainability[237].

The initial beneficiary of the project was The Paris-based International Automobile Federation (organizer of the Formula One racing events), which purchased the first 5,500 tons of carbon at a price of US$10 per ton (later raised to US$12.00)[238]. As of 2006, the project has sold 98,754 tons of carbon to different international buyers[239].

Scolel Te project has been mentioned often in the literature as a successful project[240] with many social and environmental benefits. For social outcomes, the BFCP presented the PES schemes as projects that could stimulate a variety of local development activities in local communities[241] if, and only if, forest-dependent communities voluntarily join the programme and work towards the achievement of its goals (keep the forests standing). In certain regions, forest-dependent communities joined Scolel Te project as a community (to reduce transaction costs) and the benefit obtained was the installation of 249 fuel-efficient stoves, which benefitted the same number of families[242]. In other regions, they joined as families (independently) and each family decided what to do with its own carbon payments; for example, for small house improvements and repairs[243].

In regard to environmental benefits, the project has been contemplating the establishment of tree plantations on areas previously used as pasture which, according to studies of the FAO (2004), increases carbon storage in vegetation by about 120tC/ha (tons of carbon per hectare)[244]. Other activities have also been implemented, such as combining timber and fruit trees with annual crops, such as corn, or perennial crops, such as coffee, which have been estimated to sequester 70 tC/ha; protection of threatened forests have prevented emissions of up to 300 tC/ha, and the management of degraded forests has been storing around 120tC/ha[245]. Apart from carbon sequestration, agroforestry activities have shown potential for increasing the products and services from small plots and intensifying land use while merging ES protection measures and biodiversity conservation[246]; for the latter,

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[236] ibid. (p.249)

[237] Corbera, E. (2005). Bringing development into carbon forestry markets: challenges and outcomes of small-scale carbon forestry activities in Mexico. In D. Murdiyarso & H. Herawati (Eds.), *Carbon Forestry: who will benefit?* Bogor, Indonesia: Centre for International Forestry Research-CIFOR (p.51)

[238] Rosa, H., Barry, D., Kandel, S., & Dimas, L. (2003). Compensation for environmental services and rural communities: Lessons from the Americas. Massachusetts: Political Economy Research Institute-PERI. (p.96)

[239] Ibid. (p.96)

[240] Quechulpa, S., Esquivel, E., & Fournier, S. (2011). Scolel' Te Program. Plan vivo Annual Report 2010: AMBIO

[241] Corbera, E. (2005). Bringing development into carbon forestry markets: challenges and outcomes of small-scale carbon forestry activities in Mexico. In D. Murdiyarso & H. Herawati (Eds.), *Carbon Forestry: who will benefit?* Bogor, Indonesia: Center for International Forestry Research-CIFOR (p.46)

[242] Quechulpa, S., Esquivel, E., & Fournier, S. (2011). Scolel' Te Program. Plan vivo Annual Report 2010: AMBIO. (p.2)

[243] Corbera, E. (2005). Bringing development into carbon forestry markets: challenges and outcomes of small-scale carbon forestry activities in Mexico. In D. Murdiyarso & H. Herawati (Eds.), *Carbon Forestry: who will benefit?* Bogor, Indonesia: Center for International Forestry Research-CIFOR (p.51)

[244] FAO. (2004). A review of carbon sequestration projects (Vol. AGL/MISC/37/2004). Rome: Food and Agriculture Organization of the United Nations-FAO. (p.16)

[245] ibid.(p.16)

[246] Soto-Pinto et.al., (2010) as cited by Ruiz-De-Oña-Plaza, C., Soto-Pinto, L., Paladino, S., Morales, F., & Esquivel, E. (2011). Constructing Public Policy in a participatory manner: From local carbon sequestration projects to network governance in Chiapas, Mexico. In B. M. Kumar & P. K. R. Nair (Eds.), *Carbon Sequestration Potential of Agroforestry Systems: Opportunities and challenges, Advances in Agroforestry 8*: Springer

scant information was available. Many other examples of social and environmental outcomes are described in the literature, which supports the description of being a 'dream project'.

4.2.6 Peru- *Madre de Dios Amazon PES-Like REDD+ Project*

Peru was chosen as a partner country for the World Bank's FCPF and FIP and received funding of over US$350 million for the development and implementation of REDD+ readiness plans. Its readiness preparation proposal (R-PP) was finally approved by the FCPF in March 2011[247]. However, despite the funding, REDD+ actions towards a national framework have been moving slowly. In contrast, sub-national REDD+ pilot projects implemented by national and international environmental organizations have been multiplying[248], which means that in Peru many believe in the benefits that REDD+ could bring.

The Madre de Dios Amazon REDD+ project (as it is known) is owned by two forestry companies that manage two concessions in the area. Both the Maderacre and Maderyja timber concessions signed long term concession contracts (for 40 years) with the Peruvian State in May 2002. The Peruvian State gave the rights on all the ES included in the concession to Maderacre and Maderyja[249]. The project is being developed by the Greenoxx NGO, which is a member of the Chicago Climate Exchange (CCX) that acts as an Offset Aggregator that is authorized to execute sales on the CCX trading platform on behalf of project owners[250]. The Madre de Dios Amazon REDD+ Project consists of 100,000 hectares of rainforest. The region of the project belongs to is the Ecological Corridor Vilcabamba-Amboro, which is one of the world biodiversity hotspots. From a social point of view, the project was developed to contribute to the sustainable development of rural producers and forest-dependent communities living in the nearby areas. The project is expected to generate 11,000,000 carbon credits over a ten-year period[251].

However, in terms of outcomes, this project has not been that successful. Concerning the social benefits, diverse organizations from both national and international levels have appeared to provide services and market intermediary roles[252]. This variety of actors has been confusing forest-dependent communities about whom to trust. Unfortunately, many communities have been victims of carbon pirates, who have been convincing forest communities to sign away their rights (land and carbon) for their commercial interests and benefits and offer low, or no, guarantee for their safeguards[253]. For that reason, forest communities believe that REDD+ is a threat[254]. In addition, the project has not been able to provide real economic benefits to the communities, as a considerable part of the total flow (50%) is used by intermediaries (verifiers, validators, commercialization agents and

[247] Espinoza, R., & Feather, C. (2011). The Reality of REDD+ in Peru: Between theory and practice. In AIDESEP & FPP (Eds.), (pp. 64): AIDESEP, FENAMAD, CARE, FPP. (p.8)
[248] Espinoza, R., & Feather, C. (2011). The Reality of REDD+ in Peru: Between theory and practice. In AIDESEP & FPP (Eds.), (pp. 64): AIDESEP, FENAMAD, CARE, FPP. (p.8)
[249] http://redd-database.iges.or.jp/redd/download/project.madrededios.pdf Accessed 17.05.2014 (p.4)
[250] Ibid. (p.6)
[251] http://www.greenoxx.com/downloads/summary.pdf. Accessed 16.05.2014
[252] Hajek, F., Ventresca, M. J., Scriven, J., & Castro, A. (2011). Regime-building for REDD+: Evidence from a cluster of local initiatives in south-eastern Peru. *Environmental Science & Policy, 14*(2), 201-215. (p.212)
[253] Espinoza, R., & Feather, C. (2011). The Reality of REDD+ in Peru: Between theory and practice. In AIDESEP & FPP (Eds.), (pp. 64): AIDESEP, FENAMAD, CARE, FPP (p.6)
[254] ibid. (p.8)

international consultants or experts)[255]. At the local level, themes of poverty, resource scarcity, feeling exclusion and access restriction are dominant issues among the forest stakeholders. REDD+ has been regarded by local groups with suspicion and as a means for the international intermediaries to benefit from their resources[256]. In terms of environmental benefits and, according to research from project developers, the initiative has conserved and enhanced biodiversity conditions in the area. For example, some communities have argued that the presence of species like jaguar (*Panthera onca)* proves that the conservation and constant monitoring of forests have helped wildlife populations[257].

Even with positive benefits for the environment, this project has not achieved positive outcomes to forest communities, which contribute to get the category as 'nightmare project'.

As can be seen, all the selected initiatives are different from each other. However, in order to analyse how effective or not these initiatives have been in terms of achieving the claimed REDD+ social and environmental outcomes, the following section will analyse the actions implemented.

In general terms, each pilot project provided of different information that helped to determined if it is a dream or nightmare project. Table 4-2 summarizes the results distilled form the information presented.

Table 4-2 Achievement of the win-win-win benefits of REDD+ pilot projects

Project	Emission Reduction	Social benefits	Environmental conservation	Dream or nightmare	Who is implementing?
Bolivia Noel Kemff Mercado Climate	unknown	no	yes	nightmare	Government
Brazil Bolsa Floresta (BF)	yes	yes	yes	Dream	Independent agency
Costa Rica National Fund for Forestry Finance (FONAFIFO)	unknown	Yes	yes	Dream	Semi-autonomous agency
Ecuador Socio Bosque (SB)	yes	yes	yes	Dream	International NGO and communities
Mexico The Scolel-Te project	yes	yes	yes	Dream	Independent agency and communities
Peru Madre de Dios	unknown	no	yes	nightmare	Government

[255] Hajek, F., Ventresca, M. J., Scriven, J., & Castro, A. (2011). Regime-building for REDD+: Evidence from a cluster of local initiatives in south-eastern Peru. *Environmental Science & Policy, 14*(2), 201-215. (p.213)

[256] ibid. (p.213)

[257] Greenox. (2013). Monitoring Report 2013. Actions taken in the social, biodiversity aspects and to avoid deforestation. Peru: Greenox. (p.10)

When analysing the dream projects, it can be seen that the common denominator was the implementing agency. The four dream projects were the ones in which the government was not fully responsible for its implementation. According to what has been read from these projects reports and publications, the implementing agencies developed a participation process in which the involvement of forest communities was their main strength. This participation provided a sense of "ownership" of the process which at the end guaranteed its success.

4.3 PES initiatives and REDD+ pilot projects: Assumptions

This section analyses how projects have measured up to the assumptions identified in the previous chapters and to identify the actions that have been done, or not done, by each initiative, towards achieving the claimed 'win-win-win' REDD+ outcomes.

Assumption 1 Commodification of nature is accepted:

The commodification of nature has been contentious, especially in those projects that have had no consultation processes, like NKMCAP and Madre de Dios. In the latter and, according to indigenous Amazonian peoples, the forest is synonymous of life itself[258], and many maintain a close relationship with the forests that they continue to depend on, not only for their livelihood but also for their sense of unique identity as a people. Deforestation rates are low as indigenous communities'' value and protect their sources of livelihood[259]. The same argument has been expressed by the forest-dependent communities of NKMCAP who have argued that the project is interested only in carbon, when forests provide more than that.

Commodity fetishism[260], as described by Kosoy and Corbera (2010), dominates the discussion around REDD+, as it opposes the principles of living for some indigenous communities in Ecuador. Even though SocioBosque has been beneficial, the reduction of the complexity of ecosystems in the form of categorization of individual ES has resulted in a reduction of nature, which is incompatible with the rights of nature *per se* that are attached to the ancestral living of indigenous communities around Ecuador[261].

In the other initiatives, the commodification of nature has not been a problem, as forest-dependent communities are the ones who decided to join, or not join, the PES programme. For example, Scolel Te has been designed with a bottom up approach for carbon transactions depending on those initiatives that consider carbon as an added benefit and not the main incentive behind the project[262]. In other words, the project also contemplated other types of ES. In FONAFIFO and Bolsa FLoresta other ES are also included within their projects, such as biodiversity, watershed protection and landscape beauty.

[258] Espinoza, R., & Feather, C. (2011). The Reality of REDD+ in Peru: Between theory and practice. In AIDESEP & FPP (Eds.), (pp. 64): AIDESEP, FENAMAD, CARE, FPP. (p.13)
[259] ibid. (p.15)
[260] Kosoy, N., & Corbera, E. (2010). Payments for ecosystem services as commodity fetishism. *Ecological Economics, 69*(6), 1228-1236.
[261] Ibid. (pp. 1228-1236)
[262] Ruiz-De-Oña-Plaza, C., et al. (2011). Constructing Public Policy in a participatory manner: From local carbon sequestration projects to network governance in Chiapas, Mexico. Carbon Sequestration Potential of Agroforestry Systems: Opportunities and challenges, Advances in Agroforestry 8. B. M. Kumar and P. K. R. Nair, Springer. (p.253)

Assumption 2 Land tenure and property rights are reformed or well-established:

This assumption relates to what the literature describes as any kind of action taken by each initiative in order to reform, establish or develop any procedure that guarantees, or does not guarantee, the protection of the rights of forest-dependent communities or the individual landowners of the selected initiatives. Through the analysis of the literature on these initiatives several actions that have been implemented are identified:

(i) *Letter of agreement:* This was used in Scolel Te Project and it was a letter of agreement between forest-dependent communities and the BFCP, in which the project provided them with the confidence that forest-dependent communities will keep the control of their land and of the situation[263]. Even though the letter of agreement was not a legal contract, forest-dependent communities felt their land and activities were secured. This initiative has been the only one that has implemented this kind of procedure.

(ii) *Land title activities (land cadastral):* Since 2011, the Government of Ecuador has been implementing a large land title programme but progress has been slow as it is a costly and time consuming process[264]. This land title programme will allow forest-dependent communities and individuals to join SocioBosque, as a key element is the presentation of land tenure rights, which are necessary to identify legal rights holders. However, some poor forest stakeholders have been excluded from the programme as they have land possession but have not formalized their ownership[265].

(iii) *Communal territory*: The literature on NKMCAP mentioned that the project helped unite communities and improved their community organizations by the creation of a mutual communal territory, which also benefited the communities with secure access to land and its resources[266]. This was refuted by Densham et. al., (2005) as he reported that NKMCAP has brought many negative outcomes for forest-dependent communities who argued that the project removed their traditional land. According to the author, the restriction of traditional use rights affected the level and degree of several economically important activities, including farming and hunting. However, with the purpose of addressing these effects, Robertson & Wunder (2005) stated that the project provided an adjacent area to the park and developed management plans to allow the community to use the resources such as timber and heart of palm extraction[267] as well as other activities like subsistence hunting and fishing[268]. Densham et al (2005) also stated that community members mentioned that the

[263] Corbera, E. (2005). Bringing development into carbon forestry markets: challenges and outcomes of small-scale carbon forestry activities in Mexico. In D. Murdiyarso & H. Herawati (Eds.), *Carbon Forestry: who will benefit?* Bogor, Indonesia: Centre for International Forestry Research-CIFOR (p.47)

[264] de Koning, F., Aguiñaga, M., Bravo, M., Chiu, M., Lascano, M., Lozada, T., & Suarez, L. (2011). Bridging the gap between forest conservation and poverty alleviation: the Ecuadorian Socio Bosque program. *Environmental Science & Policy, 14*(5), 531-542 (p.538)

[265] ibid.(p.538)

[266] Robertson, N., & Wunder, S. (2005). Fresh tracks in the forest. Assessing incipient payments for environmental services initiatives in Bolivia. In N. Robertson & S. Wunder (Eds.). Bogor, Indonesia: Centre for International Forestry Research-CIFOR. (p.29)

[267] İbid.(pp.27-28)

[268] Densham, A., ZCzebiniak, R., Kessler, D., & Skar, R. (2009). *Carbon Scam: Noel Kempff Climate Action Project and the Push for sub-national forest offsets*. Amsterdam: Greenpeace International. (p.13)

"NKMCAP did not help the community with an adjacent area and has not brought any benefits to the communities; 'the project has been negative to us'"[269]. The author showed that forest-dependent communities' rights were not respected, as it modified communities' subsistence-oriented extraction activities because of the lack of access to certain areas[270], generating frustration and resentment towards the development of the project[271]. In addition, it was also reported that there was pressure from high levels of government to accept the agreement of selling property rights rather than the suitability of the payment itself[272].

(iv) *Lower requisites:* The first assessment showed that the first generation of the FONAFIFO PES scheme was failing to reach poorer forest-dependent communities who had no formal land titles and could not manage to pay for the associated transaction costs. Consequent iterations of the programme have developed tools to specifically ensure that barriers to entry are either lowered or removed and that the initially excluded groups are targeted[273]. Tenure security has been improved through the scheme by preventing land kept under forest being considered 'idle' and providing protection against land invasions[274]. However, in research carried out by Locatelli et. al., (2007) 92 per cent of the interviewed PES participants expressed that the PES had no impact on legalization because they had already regularized their land titles before applying for PES benefits[275]. In relation to rights, the PES contracts specify that the rights to any resulting emission reductions belong to FONAFIFO[276].

These initiatives agreed with the assumptions in one way or another. In some cases NKMCAP and FONAFIFO literature differed in relation to the actions taken. In the case of Madre de Dios Amazon in Peru, Espinoza & Feather (2011) stated that the size of community land titles was too small and did not correspond to the customary lands[277] indigenous people claimed; and even within the titled areas indigenous peoples have use rights but not ownership over forests[278], which also threaten their livelihoods. According to the research, in these communities almost nobody knows about REDD+ and the risk that NGOs and companies will arrive in the communities to cheat and enslave them is very high[279]. Many indigenous people have commented that communities do not know their rights or the

[269] ibid. (p.13)
[270] Robertson, N., & Wunder, S. (2005). Fresh tracks in the forest. Assessing incipient payments for environmental services initiatives in Bolivia. In N. Robertson & S. Wunder (Eds.). Bogor, Indonesia: Centre for International Forestry Research-CIFOR. (p.29)
[271] Densham, A., ZCzebiniak, R., Kessler, D., & Skar, R. (2009). Carbon Scam: Noel Kempff Climate Action Project and the Push for sub-national forest offsets. Amsterdam: Greenpeace International.
[272] Robertson, N., & Wunder, S. (2005). Fresh tracks in the forest. Assessing incipient payments for environmental services initiatives in Bolivia. In N. Robertson & S. Wunder (Eds.). Bogor, Indonesia: Centre for International Forestry Research-CIFOR. (p.25)
[273] Bond, I., Grieg-Gran, M., Wertz-Kanounnikoff, S., Hazlewood, P., Wunder, S., & Angelsen, A. (2009). Incentives to sustain forest ecosystem services. A review and lessons for REDD. London, UK: International Institute for Environment and Development- IIED, CIFOR, World Resources Institute.
[274] Pagiola, S., Arcenas, A., & Platais, G. (2005). Can Payments for Environmental Services Help Reduce Poverty? An Exploration of the Issues and the Evidence to Date from Latin America. *World Development, 33*(2), 237-253. (p.244)
[275] Locatelli, B., Rojas, V., & Salinas, Z. (2008). Impacts of payments for environmental services on local development in northern Costa Rica: A fuzzy multi-criteria analysis. *Forest Policy and Economics, 10*(5), 275-285. (p.282)
[276] Pagiola, S. (2008). Payments for environmental services in Costa Rica. *Ecological Economics, 65*(4), 712-724 (p.715)
[277] Espinoza, R., & Feather, C. (2011). The Reality of REDD+ in Peru: Between theory and practice. In AIDESEP & FPP (Eds.), (pp. 64): AIDESEP, FENAMAD, CARE, FPP. (p.13)
[278] Ibid.(p.13)
[279] Ibid. (p.13)

law and are tricked by project developers[280]. According to Espinoza et.al, (2011), the project has been funded and owned by several groups: Nature Holdings, a large Chinese flooring company, US banks and the ITTO; this last group became the owners of carbon rights that last for up to 30 years[281]. Forest-dependent communities have stated that they do not agree with the project and are not interested on selling their carbon services for other countries to keep polluting[282].

Assumption 3 Willingness to participate after an effective consultation process:

When referring to consultation processes within REDD+, the importance has been mentioned of promoting FPIC processes, which are based under the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). However, on the initiatives selected this process has not been fully implemented. The analysis of the initiatives helped identify the actions that some projects implemented and what others have missed:

(i) *Training and educational workshops:* The FONAFIFO initiative has been promoting capacity building with training sessions for forest stakeholders[283].This capacity building has been enhancing general knowledge about the environment and its services, which has been important for their understanding about the benefits of protecting and conserving its ES. It has been shown that this capacity building has turned into knowledge, which then enhanced their willingness to participate in the programme. The same procedure has been used by Bolsa Floresta where forest dependent families who want to participate were required to participate in a two-day workshop on sustainable land-use management prior joining the scheme. Project developers mentioned that educational workshops have been offered to explain the nature of the project and the kind of benefits they could receive, benefits that were not completely accepted by all participants. Even with these complaints, however, over 90% of families were invited to these educational workshops and signed the commitment to participate[284].

(ii) *Technical assistance:* SocioBosque have been providing capacity building if families and indigenous communities needed assistance preparing their investment plans[285] to apply for funding. Although forest-dependent communities have to design their own investment plan some regions have argued that some communities have missed participating in the design of the communities' project[286]. In the case of Scolel Te Project, forest communities have been very active as they are the ones designing and implementing their own projects (bottom-up approach). According to project managers of this initiative, the nomination of local representatives in decision making groups has become an effective approach to uphold a clear leadership

[280] Ibid. (p.27)
[281] Ibid.(p.34)
[282] Ibid. (p.34)
[283] Miranda (2004) as cited by Locatelli, B., et al. (2008). "Impacts of payments for environmental services on local development in northern Costa Rica: A fuzzy multi-criteria analysis." Forest Policy and Economics 10(5): 275-285. (p.284)
[284] Crawford, G. REDD+ in the Amazon: the Juma Sustainable Development Reserve. Case Study 12: Institute of Development Studies-IDS.
[285] Seiwald, M. (2011). *REDD and indigenous peoples: The programme Socio Bosque by the Ecuadorian Ministry of Environment in the context of the debates around development and climate change.* (Master of Science), University of Salzburg, Salzburg.
[286] ibid. (p.74)

structure across participant communities, which has so far proved very functional[287]. In addition, a leadership rotation system was also established in communities to improve equity and legitimacy. This helped to distribute knowledge of the project among other participants rather than concentrating it in a few individuals who already hold power and social recognition[288].

Some initiatives were deficient in:

(iii) *Sharing information:* In the case of NKMCAP, the literature mentioned that forest-dependent communities inside the area of the project did not participate in the design and implementation of the scheme at any stage[289]. This lack of participation promoted early conflicts between local communities and project developers. The PDD stated that "a formal consultation of communities before the project implementation was not done" and that communities rejected the expansion of the park. Because of this, forest-dependent communities hurried to create a federation of communities and demanded a local forum with the local municipality and the rest of the actors of the scheme to discuss issues surrounding the project[290]. In the case of SocioBoque official reports have mentioned that the project was developed with consultation processes, research has shown that the involvement of indigenous groups in the overall design has been indirect and weak[291]; it has also been highlighted that the government was confusing the differences between consent and sharing information, because some indigenous peoples believed the latter was what they were receiving[292]. In Madre de Dios, diverse organizations from both national and international levels have appeared to provide services and market intermediary roles[293]. However, when working with indigenous communities, the information provided was often partial and/or biased as they tended to emphasize the benefits and revenue, rather than the costs, liabilities and risks[294]

(iv) *The use of technical language (jargon) to explain the purpose of the scheme:* In the case of SocioBosque the lack understanding is why forest-dependent communities have been indifferent or suspicious of REDD+, mainly because they have never heard of it[295]. When the government organized regional conferences to explain about the topic, just a select number of villages from different ethnic groups have been able to participate, and many were left behind (women and elderly) because of the distance to the conference and

[287] Corbera, E. (2005). Bringing development into carbon forestry markets: challenges and outcomes of small-scale carbon forestry activities in Mexico. In D. Murdiyarso & H. Herawati (Eds.), *Carbon Forestry: who will benefit?* Bogor, Indonesia: Center for International Forestry Research-CIFOR. (p.47)

[288] ibid.(p.53)

[289] Densham, A., ZCzebiniak, R., Kessler, D., & Skar, R. (2009). Carbon Scam: Noel Kempff Climate Action Project and the Push for sub-national forest offsets. Amsterdam: Greenpeace International.

[290] ibid.(p.13)

[291] Schroeder, H. (2010). Agency in international climate negotiations: the case of indigenous peoples and avoided deforestation. . *International Environmental Agreements: Politics, Law and Economics, 10*, (pp. 317-332)

[292] Seiwald, M. (2011). *REDD and indigenous peoples: The programme Socio Bosque by the Ecuadorian Ministry of Environment in the context of the debates around development and climate change.* (Master of Science), University of Salzburg, Salzburg. (p.74)

[293] Hajek, F., Ventresca, M. J., Scriven, J., & Castro, A. (2011). Regime-building for REDD+: Evidence from a cluster of local initiatives in south-eastern Peru. *Environmental Science & Policy, 14*(2), 201-215 (p.205)

[294] Espinoza, R., & Feather, C. (2011). Between theory and practice. Indigenous Amazonian People's analyses and alternatives. In AIDESEPFPP (Ed.): AIDESEP, FENAMAD, CARE, FPP. (p.6)

[295] Reed, P. (2011). REDD+ and the indigenous question: A case study from Ecuador. *Forests, 2*, 525-549. (p.536)

because they cannot leave their daily obligations for a day or two[296]; so the recipients of the information was selective. In addition to this disadvantage, the participants of these conferences have been arguing that the information on climate change and REDD+ is highly technical and difficult to understand[297].

(v) *Translating information into their own language: A*ccording to SocioBosque official reports[298] participation and socialization have been linked to FPIC and the principle of participation anchored within the Ecuadorian government[299]. The Ministry of Environment and Energy (MAE in Spanish) have using workshops to socialize the programme, however, the information has been transmitted in Spanish and many forest communities only speak their native language[300].

(vi) *Understanding community structure:* According to Krause et al (2013), in SocioBosque, the lack of participation and inclusion found demonstrated the presence of local power structures and community hierarchies that impeded full and effective participation within the community[301]. Communities needed to present an assembly act that confirmed the willingness of all community members to join the programme[302]; however, it has been difficult to determine how reliable these acts are in terms of involvement.

(vii) *Proper time for consultation:* In Madre de Dios Amazon, participatory processes often took longer than anticipated[303] and in some regions community consultation has happened after projects have been initiated[304].

Information related to correct FPIC procedures were not found for any of the initiatives selected. Training programmes, educational workshops, capacity building procedures and technical assistance were the methods mostly used to transfer knowledge and to gain forest-dependent communities' willingness to participate. The willingness to participate was optional (voluntary) in FONAFIFO, Scolel Te Project, SocioBosque and Bolsa Floresta. The voluntary nature of the SocioBosque programme, for example, has been essential for its development and the acceptance of the duration of the agreements (20 years)[305]. The programme respected the internal decision-

[296] Ibid. (p.537)
[297] Reed, P. (2011). REDD+ and the indigenous question: A case study from Ecuador. *Forests, 2*, 525-549. (p.537)
[298] MAE. (2011). Proyecto Socio Bosque: Conceptualización y avances al segundo año de implementació. Quito: Ministerio de Ambiente de Ecuador (MAE).
[299] Seiwald, M. (2011). *REDD and indigenous peoples: The programme Socio Bosque by the Ecuadorian Ministry of Environment in the context of the debates around development and climate change.* (Master of Science), University of Salzburg, Salzburg. (p.71)
[300] Krause, T., Collen, W., & Nicholas, K. (2013). Evaluating safeguards in a conservation incentive program: Participation, consent and benefit sharing in indigenous communities of the Ecuadorian Amazon. *Ecology and Society, 18*(4).(p.5)
[301] ibid. (p.6)
[302] Seiwald, M. (2011). *REDD and indigenous peoples: The programme Socio Bosque by the Ecuadorian Ministry of Environment in the context of the debates around development and climate change.* (Master of Science), University of Salzburg, Salzburg. (p.72)
[303] WWF. (2013). Mapping Madre de Dios. The participative development of a baseline forest carbon map in the Peruvian Amazon *Forest and Climate Initiative*. Peru: WWF. (p.4)
[304] Espinoza, R., & Feather, C. (2011). Between theory and practice. Indigenous Amazonian People's analyses and alternatives. In AIDESEPFPP (Ed.): AIDESEP, FENAMAD, CARE, FPP. (p.6)
[305] de Koning, F., Aguiñaga, M., Bravo, M., Chiu, M., Lascano, M., Lozada, T., & Suarez, L. (2011). Bridging the gap between forest conservation and poverty alleviation: the Ecuadorian Socio Bosque program. *Environmental Science & Policy, 14*(5), 531-542. (p.538)

making procedures of forest stakeholders and assured full participation of community members[306]. Likewise in Scolel Te Project, forest-dependent communities were fully involved with the project decision making processes[307] as they were the ones developing their own PES project. In contrast, in NKMCAP and Madre de Dios Amazon, the projects were designed and implemented without considering forest-dependent communities' willingness to be involved.

Assumption 4 Political willingness and ownership for the implementation of PES scheme:

This assumption is related to the political actions taken that show willingness and ownership, or the lack of it, that have helped or not helped, in the design and implementation of the initiatives of REDD+ as a PES schemes. These actions are:

(i) *Institutionalization of PES scheme as a national/regional programme:* From all the selected initiatives, two national programmes and two regional were identified to have obtained the political willingness and ownership for the implementation of the scheme. From all these, one stood out and that was Costa Rica. According to Snider et.al., (2003), the Costa Rican government is well recognized for its policies in favour of conservation in its large protected area network, support for private reserves and efforts to control illegal logging[308]. Their political willingness for the implementation of PES schemes is demonstrated by the creation of The National Fund for Forestry Finance (FONAFIFO) in 1996-97; however, it is managed as a semi-autonomous agency with a governing board with representatives from the public and private sectors[309]. FONAFIFO, as a mixed-finance national PES scheme (government and users), is an example of how a government's initiative can decentralize responsibility for forest management to the civil society (forest-dependent communities and others) and engage multiple levels of governance in addressing environmental problems[310]. Another example is the SocioBosque Programme. The Ecuadorian political will and mandate has been crucial for the creation and implementation of SocioBosque and this allowed its fast development[311]. The programme was launched as an incentive for conservation with the aim of supporting environmental protection, poverty reduction and climate change adaptation and mitigation. It was designed as a classic top-down conservation measure. The creation of this programme, as an independent branch of

[306] ibid. (p.538)

[307] Ruiz-De-Oña-Plaza, C., Soto-Pinto, L., Paladino, S., Morales, F., & Esquivel, E. (2011). Constructing Public Policy in a participatory manner: From local carbon sequestration projects to network governance in Chiapas, Mexico. In B. M. Kumar & P. K. R. Nair (Eds.), *Carbon Sequestration Potential of Agroforestry Systems: Opportunities and challenges, Advances in Agroforestry 8*: Springer. (p.250)

[308] Arriagada, R., Ferraro, P. J., Sills, E., Pattanayak, S., & Cordero-Sancho, S. (2012). Do Payments for environmental services affect forest cover? A farm-level evaluation from Costa Rica. *Land Economics, 88*(2), 382-399. (p.384)

[309] Bennett, K., & Henninger, N. (2002). *Payment for Ecosystem Services in Costa Rica and Forest Law N. 7575*. Washington, D.C.: World Resources Institute-WRI. (p.4)

[310] Miranda, M., Porras, I., & Moreno, M. L. (2003). The social impacts of payments for environmental services in Costa Rica. A quantitative field survey and analysis of the Virilla watershed. London: International Institute for Environment and Development (IIED). (p.62)

[311] de Koning, F., Aguiñaga, M., Bravo, M., Chiu, M., Lascano, M., Lozada, T., & Suarez, L. (2011). Bridging the gap between forest conservation and poverty alleviation: the Ecuadorian Socio Bosque program. *Environmental Science & Policy, 14*(5), 531-542. (p.538)

the MAE, has demonstrated the political willingness to incentivize those who have been protecting and managing forest resources[312].

At the regional level, Bolsa Floresta and Scolel Te Project are other examples where political willingness and ownership are present. The former was created as a state initiative but then they joined forces to enhance the programme. The latter has been implemented by government agencies in Mexico dealing with forest conservation and protected areas, and other national and international NGOs that have joined. Scolel Te Project and other PES projects are part of the state government's agenda, and it expects the possibility of conserving more natural resources through the addition of more rural communities[313].

(ii) *Political reforms (laws or policies)*: From all the initiatives analysed, only NKMCAP showed political willingness at the highest level when the President of Bolivia recognised the land claims of three communities[314]. However, it is important to analyse if this 'willingness' for land recognition was not tied to electoral interests. From the start, Bolsa Floresta has not been an isolated initiative and its creation has been supported by a mixture of policies to foster sustainable development and reduce deforestation. These policies are based on long-term sustainable development goals and investment in science, technology and innovation, having in mind that there is a deadline (2023) for tax and the location of incentives[315]

On the other hand, the lack of political will, in the case of Peru, was shown in the development of the national strategy. This document gave minimal attention to indigenous peoples' rights[316] and, according to Espinoza & Feather (2011), the existing REDD+ programmes like Madre de Dios were undermining the rights of forest dependent peoples, which were likely to lead to conflicts over land use and resources. Additionally, the government has also failed to dedicate funds or technical support to promote forest management[317]. When analysing the R-PP, FCPF noted that "the draft of the R-PP does yet not provide a sufficiently solid basis for the Peruvian government to move into the direction to implementing readiness activities. As a result, it was noted that Peru was not ready for REDD+ and that the government has not managed to allocate resources for REDD+ activities[318]. This demonstrates the lack of political willingness and ownership of the REDD+ scheme in the country.

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[312] Seiwald, M. (2011). *REDD and indigenous peoples: The programme Socio Bosque by the Ecuadorian Ministry of Environment in the context of the debates around development and climate change.* (Master of Science), University of Salzburg, Salzburg. (p.82)

[313] Ruiz-De-Oña-Plaza, C., Soto-Pinto, L., Paladino, S., Morales, F., & Esquivel, E. (2011). Constructing Public Policy in a participatory manner: From local carbon sequestration projects to network governance in Chiapas, Mexico. In B. M. Kumar & P. K. R. Nair (Eds.), *Carbon Sequestration Potential of Agroforestry Systems: Opportunities and challenges, Advances in Agroforestry 8*: Springer. (p.259)

[314] Robertson, N., & Wunder, S. (2005). Fresh tracks in the forest. Assessing incipient payments for environmental services initiatives in Bolivia. In N. Robertson & S. Wunder (Eds.). Bogor, Indonesia: Center for International Forestry Research-CIFOR. (p.29)

[315] Cassasola, R. (2010). Conserving Forests through periodic grants: Bolsa Floresta, Brazil. *The Economics of Ecosystems and Biodiversity -TEEB*. (p.3)

[316] Espinoza, R., & Feather, C. (2011). The Reality of REDD+ in Peru: Between theory and practice. In AIDESEP & FPP (Eds.), (pp. 64): AIDESEP, FENAMAD, CARE, FPP.(p.8)

[317] ibid. (p.15)

[318] Knight, C., & Stephenson, J. (2010). National REDD+ funding frameworks and achieving REDD+ readiness. Findings from consultation: PriceWaterHouseCoopers, Conservation Finance Alliance. (p.121)

Though the political willingness and ownership for the implementation of PES schemes is not just the establishment of semi-autonomous institutions or the establishment of national or regional programmes, but the efficiency with which these institutions operate in order to achieve the expected social and environmental outcomes. The institutional capacity of these institutions is analysed in the following assumption.

Assumption 5 Institutional capacity at local, national and international level:

The institutional capacity talks about the efficiency or not, of the institutions in charge of the development and implementation of REDD+ scheme. Here are some examples of actions that show the institutional capacity of each initiative.

(i) *Efficient institutions with institutional arrangements:* Some of the selected initiatives are regional or national programmes where an entity deals with the management and implementation of REDD+ as a PES scheme. In the case of the Costa Rica National Programme, FONAFIFO acts as a semi-autonomous institution and comprises forest engineers, forest organizations and local NGOs who act as intermediaries to simplify the application process for forest-dependent communities or stakeholders[319]. As an example of the efficiency and institutional arrangements, forest organizations (local or NGOs) bundle forest communities together and submit them as a global project reducing transaction costs by 'wholesaling' collections of individual projects; thus, making participation more attractive for small and medium-size forest stakeholders[320], as this facilitates their ability and competitiveness as ES providers[321].

In contrast, in NKMCAP, forest-dependent communities mistrusted the institutions involved (NGOs and SERNAP) in this process because of the expectations relating to the possible benefits they could obtain from the project and also the lack of tangible institutional arrangements with forest organizations, which happened a decade after the implementation of the scheme. However, reports mention that the project created a five-year Community Assessment Programme called APOCOM (Apoyo Comunitario in Spanish) to help with the establishment of economic alternatives. Nevertheless, APOCOM has been viewed as a 'paternalistic charity' rather than a development partner. There was no contract detailing with its liabilities and rights. This also created a climate of expectancy and dependency from forest-dependent communities[322].

(ii) *Trained staff:* The initiatives in Costa Rica, Mexico and Ecuador have used trained staff. In Costa Rica, the law requires that only forest engineers and forests organizations (some NGOs) can act as intermediaries

[319] Arriagada, R., Ferraro, P. J., Sills, E., Pattanayak, S., & Cordero-Sancho, S. (2012). Do Payments for environmental services affect forest cover? A farm-level evaluation from Costa Rica. *Land Economics, 88*(2), 382-399. (p.384)

[320] Zbinden, S., & Lee, D. R. (2005). Paying for Environmental Services: An Analysis of Participation in Costa Rica's PSA Program. *World Development, 33*(2), 255-272. (p.258)

[321] Pagiola, S., Arcenas, A., & Platais, G. (2005). Can Payments for Environmental Services Help Reduce Poverty? An Exploration of the Issues and the Evidence to Date from Latin America. *World Development, 33*(2), 237-253 (p.245)

[322] Asquith, N. M., Vargas, M. T., & Joyotee., S. (2002). Can forest-protection carbon projects improve rural livelihoods? Analysis of the Noel Kempff Mercado Climate Action Project, Bolivia. *Mitigation and Adaptation Strategies for Global Change, 7*, 323-337. (p.333)

between forest-dependent communities (or forest stakeholders) and the government[323]. Another illustration is AMBIO, as a technical unit of BFCP in Mexico. AMBIO promotes PES projects around Mexico and has been training forest-dependent communities and technicians to deal with administrative and monitoring procedures and developing new forest and development-oriented projects[324]. In Ecuador with the socialization of SocioBosque, research done by Krause et al (2013) validated the presence of skilled staff taking an active role in facilitating assemblies[325]. This socialization involves information sharing and, in some cases, technical assistance to develop the investment plan. This demonstrates the positive feedback about the institutional capacity of SocioBosque, at least in terms of socialization and assistance[326]. In all these examples, having trained staff improved the quality of the documents and reports that were needed to submit to join the programmes.

(iii) *Flexibility:* This is very important in order to strengthen the weaknesses that institutions and procedures might have. In the case of FONAFIFO, this flexibility helped to address not just those forest-dependent communities with land tenure titles, but also small, poor forest groups that lacked tenure titles. In the case of Scolel Te, its flexibility has been a key issue for its consolidation and expansion, and this would not have been possible without an on-going process of learning, based on their own experiences, self-evaluation and continuous adaptation to new challenges[327]. In the same context, Bolsa Floresta and SocioBosque have made changes within their processes in order to address some of the weaknesses of their programmes. This flexibility has allowed them to improve and to gain the trust of forest-dependent communities.

(iv) *Transparency:* AMBIO has promoted the projects with transparency from the very beginning in regard to their role in the project's development and the objectives of carbon forest activities[328]. The same has happened with FONAFIFO and BolsaFloresta. In contrast, NKMCAP and Madre de Dios have been rejected by forest-dependent communities because of the lack of transparency in their objectives, goals and intentions.

Even with the above characteristics, some initiatives demonstrated weak institutional capacity through the following actions:

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[323] Zbinden, S., & Lee, D. R. (2005). Paying for Environmental Services: An Analysis of Participation in Costa Rica's PSA Program. *World Development, 33*(2), 255-272. (p.257)

[324] Corbera, E. (2005). Bringing development into carbon forestry markets: challenges and outcomes of small-scale carbon forestry activities in Mexico. In D. Murdiyarso & H. Herawati (Eds.), *Carbon Forestry: who will benefit?* Bogor, Indonesia: Center for International Forestry Research-CIFOR (p.45)

[325] Krause, T., Collen, W., & Nicholas, K. (2013). Evaluating safeguards in a conservation incentive program: Participation, consent and benefit sharing in indigenous communities of the Ecuadorian Amazon. *Ecology and Society, 18*(4).

[326] Ibid (p.14)

[327] Ruiz-De-Oña-Plaza, C., Soto-Pinto, L., Paladino, S., Morales, F., & Esquivel, E. (2011). Constructing Public Policy in a participatory manner: From local carbon sequestration projects to network governance in Chiapas, Mexico. In B. M. Kumar & P. K. R. Nair (Eds.), *Carbon Sequestration Potential of Agroforestry Systems: Opportunities and challenges, Advances in Agroforestry 8*: Springer (p.256)

[328] Corbera, E. (2005). Bringing development into carbon forestry markets: challenges and outcomes of small-scale carbon forestry activities in Mexico. In D. Murdiyarso & H. Herawati (Eds.), *Carbon Forestry: who will benefit?* Bogor, Indonesia: Center for International Forestry Research-CIFOR (p.53)

(v) *Lack of coordination between actors and institutions:* Even though SocioBosque has proven to be efficient in some aspects, research has shown that it has been weak and inefficient in others. According to Redd (2011), the lack of coordination and transparency by the authorities to make the most basic of information about REDD+ available to forest-dependent communities is the reason for the opposition to the REDD+ scheme[329].

(vi) *Corruption:* In SocioBosque, indigenous forest groups fear that REDD+, as a new proposal of extractive economy measures, could jeopardize their livelihoods and, also, because many past experiences have been stained with corruption and conspiracy when managed directly by national government authorities[330]. However, and in spite of this, forest-dependent communities seem well intent on entering and preparing to engage in REDD+ projects, if, and only if, they clearly see preconditions that would safeguard their cultures, territories and autonomy[331].

(vii) *Rotation of staff:* While staff of the Government of Peru have been trained in the relevant issues regarding the design and implementation of REDD+, the process has been delayed by a frequent rotation of government officials in and out of the project Madre de Dios[332]. This political instability also held up the consolidation of the technical information acquired over the course of the initiative[333]

As can be seen, the institutional capacity for the implementation of REDD+ varies in each initiative. Actions have been made at local and national levels; however, just one initiative has extended its actions (promotion) at the international level. The Government of Ecuador has developed an extensive international marketing campaign flattering its REDD+ readiness efforts with the SocioBosque programme. However, not enough has been done to promote REDD+ within the indigenous sector and its base communities[334] who are the main winners or losers of the programme.

Assumption 6 Economic viability and equitable distribution of benefits:

This assumption discusses the actions taken to develop an economic viability for the initiatives and what methods were used for the equitable distribution of benefits. The actions taken are:

(i) *Collective or communal contracts:* As in any PES project, the transaction costs for the implementation of REDD+ schemes are very high. Initiatives like FONAFIFO and Scolel Te Project have been using collective or communal contracts to spread the transaction costs over a large group or participants[335].

[329] Reed, P. (2011). REDD+ and the indigenous question: A case study from Ecuador. *Forests, 2*, 525-549. (p.544)
[330] ibid. (p.536)
[331] ibid.(p.525)
[332] WWF. (2013). Mapping Madre de Dios. The participative development of a baseline forest carbon map in the Peruvian Amazon *Forest and Climate Initiative*. Peru: WWF. (p.4)
[333] ibid. (p.4)
[334] Reed, P. (2011). REDD+ and the indigenous question: A case study from Ecuador. *Forests, 2*, 525-549. (p.536)
[335] FONAFIFO. (2000). El desarrollo del sistema de pago de servicios ambientales en Costa Rica. . San Jose, Costa Rica: FONAFIFO

(ii) *Distribution according to forest activities:* Different approaches have been used to reward forest activities. The SocioBosque programme has been offering $30.00 per hectare of forest conserved. However, this amount reduces when the amount of land registered in the programme exceeds 50 hectares[336]. The participants have the flexibility to use the incentive according to their needs and preferences but are guided among different forms of investment[337] and according what they have described within their investment plan. However, even if it has been detailed in the investment plan, the management of funds has been a central point of conflict within the communities[338]. In some projects of SB, there has been a persistent suspicion that leaders and technicians use the money for personal enrichment[339]. According to research by Krause et al (2013), community leaders are nominated for a two-year period, and the authors considered that this short period might explain rent-seeking behaviour while in a position of power, or simply a lack of knowledge about financial management[340]. The authors also explained that increased conflicts had been reported after joining the programme and the conflicts have been mainly centred over financial management and benefit sharing. They think that the distribution of benefits may represent more of a threat to cultural survival, stability and functioning of local or traditional community institutions than the implementation of the project itself[341]. The results of their research showed that the majority of respondents (61%) did not know the number of incentives their community was receiving annually for participating in SocioBosque; 43% stated that their family had received benefits from participating and 53% perceived communal benefits, such as, better school equipment, educational workshops and communal projects like water tanks[342].

(iii) *Social development programmes:* In FONAFIFIO, economic incentives have provided health improvements with the opening of basic service clinics, the number of bilingual teachers has increased, and there have been improvements in road and housing construction[343]. Moreover, 18% of the invested income has been directed to social development offering training, scholarships, bonds, assistance for medical arrangements and care for the handicapped and aged and funerals, among others[344]. In the case of FONAFIFO, land owners can join in the reforestation programme by transferring a certain part of their land to tree planting. This is needed to keep a threshold survival rate (>85%) in order to receive programme payments. The

[336] Reed, P. (2011). REDD+ and the indigenous question: A case study from Ecuador. *Forests, 2*, 525-549. (p.534)
[337] de Koning, F., Aguiñaga, M., Bravo, M., Chiu, M., Lascano, M., Lozada, T., & Suarez, L. (2011). Bridging the gap between forest conservation and poverty alleviation: the Ecuadorian Socio Bosque program. *Environmental Science & Policy, 14*(5), 531-542. (p.535)
[338] Krause, T., Collen, W., & Nicholas, K. (2013). Evaluating safeguards in a conservation incentive program: Participation, consent and benefit sharing in indigenous communities of the Ecuadorian Amazon. *Ecology and Society, 18*(4).
[339] Seiwald, M. (2011). *REDD and indigenous peoples: The programme Socio Bosque by the Ecuadorian Ministry of Environment in the context of the debates around development and climate change.* (Master of Science), University of Salzburg, Salzburg. (p.82)
[340] Krause, T., Collen, W., & Nicholas, K. (2013). Evaluating safeguards in a conservation incentive programme: Participation, consent and benefit sharing in indigenous communities of the Ecuadorian Amazon. *Ecology and Society, 18*(4).
[341] Downing and Garcia-Downing, (2001) as cited by Krause, T., Collen, W., & Nicholas, K. (2013). Evaluating safeguards in a conservation incentive program: Participation, consent and benefit sharing in indigenous communities of the Ecuadorian Amazon. *Ecology and Society, 18*(4).
[342] Krause, T., Collen, W., & Nicholas, K. (2013). Evaluating safeguards in a conservation incentive program: Participation, consent and benefit sharing in indigenous communities of the Ecuadorian Amazon. *Ecology and Society, 18*(4).
[343]FONAFIFO. (2012). Costa Rica tropical forests: A motor for green growth. San Jose, Costa Rica: MINAET, FONAFIFO. (p.26)
[344] ibid.(p.26)

reforestation programme includes a contract in which the forest owner transfers his/her forest use rights to the government for the contract period[345]. In this national programme, land with exceptional ES value may receive added compensation; payments range from $41/ha per year for natural forest regeneration, to a cumulative sum of $816/year reforestation/plantation contract[346]. In reforestation contracts, payments are front-loaded, with large payments and then much smaller in later years (for reforestation contracts 50% of the total is paid in the first year, 20% in the second, 15% in the third, 10% in the fourth and 5% in the fifth)[347]. According to Pagiola (2005), FONAFIFO PES projects are not designed to be poverty reduction programmes, rather they are to create opportunities to contribute to this objective[348]. This programme has achieved social benefits as it also includes income generation and employment opportunities for rural populations[349].

Likewise, in Bolsa Floresta, payments vary depending on whether they participate as families (about US$30.00 per month, ideally paid to the wife), as communities (US$ 2,500.00 per year), or as a family association[350]. A fine is applied when participants deforest beyond a maximum limit or render their land use unsustainable. In Mexico, for BFCP, the carbon price has been targeted to cover the cost incurred by providers of ES and to generate funds for project management. The price varies according to whether the carbon sequestered originates from agroforestry-reforestation activities (higher price) or conservation and the management of existing forest stocks (lower price). The projects have been registered under the United States Initiative for Joint Implementation (one of the approved Kyoto Protocol mechanisms); the leading carbon beneficiary paid an average of US$11.00 per ton of carbon[351]. Scolel Te Project stipulates four payments of 18% each paid during the first three years and in the fifth year with a final payment at the eighth year. In order to raise a contingency fund to cover the risks (natural disasters) and uncertainties (non-compliance) in the delivery of carbon credits, a minimum 10% buffer has been withheld from each sale agreement with a community or producer which guarantees permanence[352]. The fee carbon sequestered

[345] Zbinden, S., & Lee, D. R. (2005). Paying for Environmental Services: An Analysis of Participation in Costa Rica's PSA Program. *World Development, 33*(2), 255-272. (p.257)

[346] Daniels, A. E., Bagstad, K., Esposito, V., Moulaert, A., & Rodriguez, C. M. (2010). Understanding the impacts of Costa Rica's PES: Are we asking the right questions? *Ecological Economics, 69*(11), 2116-2126. (p.2117)

[347] Pagiola, S., Arcenas, A., & Platais, G. (2005). Can Payments for Environmental Services Help Reduce Poverty? An Exploration of the Issues and the Evidence to Date from Latin America. *World Development, 33*(2), 237-253. (p.245)

[348] ibid. (p.721)

[349] Locatelli, B., et al. (2008). "Impacts of payments for environmental services on local development in northern Costa Rica: A fuzzy multi-criteria analysis." Forest Policy and Economics 10(5): 275-285. (p.276).

[350] Wertz-Kanounnikoff, S., Kongphan-Apirak, M., & Wunder, S. (2008). Reducing forest emissions in the Amazon Basin. A review of drivers of land-use change and how payments for environmental services (PES) schemes can affect them. Bogor, Indonesia: Center for International Forestry Research (CIFOR). (p.11)

[351] Corbera, E. (2005). Bringing development into carbon forestry markets: challenges and outcomes of small-scale carbon forestry activities in Mexico. In D. Murdiyarso & H. Herawati (Eds.), *Carbon Forestry: who will benefit?* Bogor, Indonesia: Center for International Forestry Research-CIFOR (p.45)

[352] Ruiz-De-Oña-Plaza, C., Soto-Pinto, L., Paladino, S., Morales, F., & Esquivel, E. (2011). Constructing Public Policy in a participatory manner: From local carbon sequestration projects to network governance in Chiapas, Mexico. In B. M. Kumar & P. K. R. Nair (Eds.), *Carbon Sequestration Potential of Agroforestry Systems: Opportunities and challenges, Advances in Agroforestry 8*: Springer. (p.253)

has been paid *ex-ante*, but the payments have been withheld if targets were not reached[353]. In this project, each family decides what to do with its own carbon payments, like small house improvements[354]

(iv) *Key alliances:* Scolel Te Project has been developing strategic alliances with Conservation International-Mexico and Reforestemos Mexico who covered a wide share of project-related activities. This helps to cover operating costs.[355]

Not all initiatives try to provide economic viability or a fair distribution of benefits. In projects like NKMCAP, the restriction of traditional use rights affected the level and degree of several economically important activities, including farming and hunting. Even though published reports mentioned that the PES scheme brought several benefits to communities, community members mentioned that the project has been negative to them and had not brought any benefits at all[356]. According to project developers, direct cash payments to communities were never considered because of the unsustainable 'boom' they could have produced[357]. Following this May et. al., (2004) found that 49% of all carbon credits generated by NKMCAP were passed to the Bolivian government, which had spent the earnings on biodiversity protection and park management. Out of this amount, the project implementer (FAN) was entitled to 20% and investors from the private sector received the remainder[358]. The social benefits of this PES initiative were not directly accrued to communities, which continued, principally, to be influenced by the government's will to address their interests and needs[359].

In the case of Madre de Dios, the project faces having insufficient payments. This complicates the achievement of social benefits, additionally, the project has faced problems with the equitable distribution of benefits as communities cannot receive funds directly and they must invest them in productive enterprises, as established by the project. Some of the arguments by the indigenous forest communities are that those productive enterprises do not address the real drivers of deforestation in the area[360], which is one of the objectives of the project. In some areas, project developers have agreed to 50-50 deals on any profit for environmental services, however, indigenous communities have rejected this as they believe the distribution is unjustified and inequitable[361].

Assumption 7 Economic flow (national or international) of forest carbon markets:

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[353] ibid. (p.253)

[354] Corbera, E. (2005). Bringing development into carbon forestry markets: challenges and outcomes of small-scale carbon forestry activities in Mexico. In D. Murdiyarso & H. Herawati (Eds.), *Carbon Forestry: who will benefit?* Bogor, Indonesia: Center for International Forestry Research-CIFOR. (p.51)

[355] Quechulpa, S., Esquivel, E., & Fournier, S. (2011). Scolel' Te Program. Plan vivo Annual Report 2010: AMBIO

[356] Robertson, N., & Wunder, S. (2005). Fresh tracks in the forest. Assessing incipient payments for environmental services initiatives in Bolivia. In N. Robertson & S. Wunder (Eds.). Bogor, Indonesia: Centre for International Forestry Research-CIFOR. (p.23)

[357] ibid. (p.23)

[358] May, P., Boyd, E., Chang, M., & Veiga, F. (2003). *Local sustainable development effects of forest carbon projects in Brazil and Bolivia: A view from the field*. Paper presented at The International conference on Rural Livelihoods, Forests and Biodiversity, Bonn, Germany.

[359] Novonty, S. (2010). Payment for Environmental Services in the Amazon Forest: How can conservation and development be reconciled? *The Journal of Environment & Development, XX*(X), 1-20. (p.14)

[360] Espinoza, R., & Feather, C. (2011). The Reality of REDD+ in Peru: Between theory and practice. In AIDESEP & FPP (Eds.), (pp. 64): AIDESEP, FENAMAD, CARE, FPP. (p.24)

[361] ibid. (p.42)

This assumption analyses how initiatives have been working to keep the economic flow of ES markets. Costa Rica has been the only initiative that has implemented a fuel tax to keep the programme viable. Funds come also from multilateral organizations and sales of ES at national and international levels. For Mexico, the demand for carbon credits has been plentiful. Several national and international organizations have contributed towards offsetting a total of 23,357 tCO_2 and generating carbon payments of USD$ 35,604 to providers[362]. In the case of Madre de Dios, the two concessions, Maderacre and Maderyja, have the rights on all the ES, which have been passed to Greenoxx who execute the sales on the CXX Trading Platform on behalf of project owners.

All these initiatives, as REDD+ pilot projects, and many others around the world, are expecting an international economic payment under the UNFCCC as it is assumed that the regulatory market of REDD+ will 'soon' be officially approved.

4.4 Conclusions

The analysis of case studies has provided valuable information that could improve the implementation of REDD+ in countries like Guatemala.

The design approach was different in every case. In the analysis of these processes, the first step was determining if the projects were dream or nightmare initiatives. Design is a key step to engaging forest communities. In FONAFIFO, Scolel Te, and SB, willing forest communities and families would have to develop their own forest management plan; or, in the case of SB, they must develop an investment plan that details how the economic benefits were going to be used and which activities they were going to develop. The same applied to Bolsa Floresta, but with a different approach, as the community would need to describe how the funds were going to be used in one of the three economic components of the scheme. From my point of view, this bottom-up approach is essential for the engagement of forest communities. This was confirmed by the feeling of frustration and rejection that forest communities had in NKMCAP and Madre de Dios, where everything was decided for them.

For the design of a PES scheme, it was important to implement a process of consultation and participation. In the dream initiatives, a different method was used (with or without FPIC processes). In some cases the process of consultation showed that some kind of capacity building, training and workshops had helped with the construction of knowledge about the topic and also information was given in relation to forest communities' possible responsibilities and outcomes from the project. This process of consultation with a bottom-up approach resulted stronger indigenous *cosmovisions*, for some initiatives, which benefitted the implementation of the project. After that consultation process, it was the forest-dependent communities' decision to get involve, or not, in the project .This involvement had different processes, at different stages and decision making capacities were important tools in developing ownership. Further, according to the literature review, it has been shown that when forest

[362] Quechulpa, S., Esquivel, E., & Fournier, S. (2011). Scolel' Te Program. Plan vivo Annual Report 2010: AMBIO.

communities have ownership of processes, projects were more likely to succeed. This has been supported the 'dream projects' of investment plan for SocioBosque and forest management plan for Scolel Te. There, forest communities owned the processes of designing their own project and have been achieving positive outcomes.

The bottom-up approach also contributed to the social benefits communities wanted to receive, as they were the ones developing the projects and deciding which kind or type of benefit they would receive. In some cases, individual payments were given (Bolsa Floresta, Scolel Te). In others, social benefits were decided to be used for the communities' benefit, like the construction of health or educational centres (SocioBosque, FONAFIFO), the repair or construction of roads (FONAFIFO) and others. For example, in the case of SB the bottom-up approach allowed them to emphasize education as the forest community wanted to reform their whole educational system to harmonize it better with indigenous *cosmovision* (indigenous self-development). In that regard, constant attention has to be paid, especially to the socialization of projects within the communities and the integration of the population into the decision making process[363].

In addition to what has just been described, another common factor of these initiatives was the presence of an entity (independent or semi-independent from the government) who was the one providing capacity building, technical assistance, educational workshops to enhance communities' knowledge about REDD+ and also to provide answers about liabilities, benefits, risks, advantages and so many other questions related to REDD+. These independent entities gained the trust of forest communities because of their transparency of processes and their willingness to assist forest communities in the development of their projects.

In contrast, NKMCAP and Madre de Dios have been categorized as 'nightmare' projects because the social benefits were not achieved. The process of the design of these projects did not contemplate the participation or involvement of forest-dependent communities. In the case of NKMCAP, some logging companies were moved out of the expansion area generating a fear of land expropriation among these communities. As there was no involvement by these communities, all the activities promoted by project developers were instantly rejected. This proved that participation was an important tool for the engagement of these people who depended on forest resources.

The rejection of the project with these two initiatives was also shown with the distribution of benefits. In Madre de Dios project, forest indigenous peoples received computers and telephones and were told that REDD+ was providing these "gifts"[364]. These were not the kind of social benefits these communities were expecting and were benefits that communities did not need for their survival. In the case of NKMCAP, they received one payment and were told not to use the forest resources anymore; this generated frustration and rejection. In both initiatives, projects were developed by NGOs who directly negotiated the carbon credits with international companies. In the

[363] Seiwald, M. (2011). *REDD and indigenous peoples: The programme Socio Bosque by the Ecuadorian Ministry of Environment in the context of the debates around development and climate change*. (Master of Science), University of Salzburg, Salzburg. (p.85)

[364] Espinoza, R., & Feather, C. (2011). The Reality of REDD+ in Peru: Between theory and practice. In AIDESEP & FPP (Eds.): AIDESEP, FENAMAD, CARE, FPP. (p.26)

case of NKMCAP, the government was also involved, which disappointed communities as they argued that the government was corrupt. As highlighted in the theory chapter (Chapter 3), one of the main weaknesses that non-Annex I countries have was the high levels of corruption and weak governance structures. The direct involvement of the government, co-administrators and of the buyers of the ES was something important that needed to be evaluated for future projects. As mentioned in Chapter 3, a key aspect of any PES scheme was related to the actors involved in the different processes; and, in REDD+ schemes, the diversity of actors involved with different capacities, different influential powers and interests needed to be balanced in order to provide the right weight to the right actors. In both cases, forest indigenous communities commented that their rights were not respected and their rejection was because they feared that the project could jeopardize their livelihoods.

In comparing the dream and nightmare initiatives, the latter did not have any consultation prior to the design and implementation of the scheme, and the outcome of this lack of participation was rejection and frustration towards the project. It was important to notice that the consultation and participation processes were developed in the dream initiatives by the independent agency or entity in charge of the projects, whereas the nightmare projects were designed and implemented by the co-administrators of the protected areas and/or the government. With this, I am not saying that co-administrators or governments were unproductive, just that their institutional capacity was sometimes overloaded by other activities, such as effective consultation or FPIC processes.

In relation to the institutional capacity of the entities developing the initiatives, it was different in the dream and the nightmare projects. This capacity was good for the entities developing the dream initiatives, as the outcomes were positive in terms of social and environmental benefits, which was in the overall goal of every PES scheme like REDD+. As mentioned earlier, these initiatives had an independent agency, technical unit or a branch (as in the case of SB) that had the full responsibility for the processes and activities that were needed for the implementation of the PES scheme. However, the most important lesson that might be learned from these programmes was the need to be flexible and to adapt to lessons learned and to the changing circumstances[365]. FONAFIFO showed that flexibility was needed in order to improve or strengthen the weaknesses that any project had at the beginning when there were many uncertainties. It was important to clarify that the process and activities for the design and implementation of the PES scheme were not the same as the processes needed for the design and implementation of the 'entity'. In these dream initiatives, the design and implementation of the 'entity' was done without any consultation and participation processes as it was out of the forest-dependent communities' scope.

In the general context of implementation of the scheme, the fair and equitable distribution of benefits was absent in both nightmare projects and the economic viability for the implementation of the scheme was too. According to the evolution of REDD+ (previous chapter) and the theory of PES schemes when REDD+ emerged, it was assumed that it was easy and could be implemented quickly, making it attractive to a range of different actors[366]. However,

[365] Pagiola, S. (2008). "Payments for environmental services in Costa Rica." Ecological Economics 65(4): 712-724. (p.722)
[366] Angelsen, A., & McNeill, D. (2012). The evolution of REDD+. In A. Angelsen, M. Brockhaus, W. Sunderlin & L. Verchot (Eds.), *Analysing REDD+: Challenges and choices* (pp. 31-50). Bogor, Indonesia: CIFOR (p.33)

the reality has shown that the estimated time frame to develop all the required procedures for a forest carbon project was around 22 months. In other words, it will take around two years to get some of the economic benefits assuming the existence of an international carbon market. All of this made REDD+ a very complex scheme to be developed and implemented. In addition, it was also thought that REDD+ was cheap, because reducing emissions from tropical forests was reasonably economic compared to almost all other mitigation options[367]. Although, lessons have shown that the implementation of REDD+ pilot projects was not cheap. According to the research done by the World Conservation Society (WCS) (2008) some of the estimated costs for one REDD+ pilot project were around US$ 345 -500,000.00[368] These high costs were a great disadvantage for non-Annex I countries, converting to a REDD+ scheme was another expensive mechanism such as CDM, JI and ETS. Many countries have rushed to initiate REDD+ projects in order to get the economic benefits that it has been promoting. However, sometimes the reality was far away from what was expected, and probably this was the case of Madre de Dios and NKMCAP.

These PES schemes and REDD+ pilot projects have given important information about what was needed on the ground. This was an example of how REDD+ promises a dream, but, the "more things on the ground than dreamt of in REDD+ philosophy" risk leading to a nightmare. This chapter gave me reasons to think that the idea of REDD+ should not be written off or be made to work in every country but only if certain elements and conditions were met. REDD+ involved two different processes - design and implementation - and each of them needed its own conditions to be presented in order to effectively implement the scheme and obtain the expected positive outcomes. These elements and conditions are what the following chapter will explore within a multi-level of governance for REDD+ scheme for non-annex I countries like Guatemala.

[367] Angelsen, A., & McNeill, D. (2012). The evolution of REDD+. In A. Angelsen, M. Brockhaus, W. Sunderlin & L. Verchot (Eds.), *Analysing REDD+: Challenges and choices* (pp. 31-50). Bogor, Indonesia: CIFOR (p.33)

[368] WWF. (2006). *Payments for Environmental Services. An equitable approach for reducing poverty and conserving nature*. Zeist, The Netherlands: World Wide Fund for Nature -WWF.

Chapter 5

A MULTI-LEVEL EXPLORATION OF THE DESING AND IMPLEMENTATION OF REDD+ IN GUATEMALA

5.1 Introduction

The findings from the case studies presented in Chapter 4 raised considerable doubts that REDD+ will produce positive, social and environmental outcomes. Arguably, the theoretical and empirical grounds for being pessimistic are strong, not overwhelming. Yet, a few instances can be found where PES and REDD+ pilot projects have produced positive, social and environmental outcomes. Even though these may be exceptions rather than the rule, this makes these successful cases interesting and important to learn from. In addition, the case studies helped identify differences in the ways projects were designed and implemented, and also different perceptions about what to consider as social and environmental outcomes. The successful cases are examples of what I consider positive, social and environmental outcomes for forest-dependent communities and groups involved in REDD+ pilot projects or other PES schemes. This chapter will use what had been learned so far to frame the rest of the research.

For the purpose of this research, I will consider as positive, social outcomes the meeting of needs, as defined and agreed to, by the actors involved (as, for example, in the cases of Scolel Te, FONAFIFO and Socio Bosque), in an individual project, or by forest-dependent communities or groups (or other forest actors) involved in a PES or PES-like project. Examples of these communal needs or social benefits are: (i) the improvement in the education and health system of the communities in the project; (ii) the restoration and construction of roads; (iii) improvement in housing; (iv) the provision of potable water and electrification of the area; and (v) other activities that involve the improvement in the area of the forest dependent community or group as a whole. However, projects have also delivered individual benefits, which are distributed independently to each family from a participating forest community or group in a REDD+ project. These benefits could be related to employment or other benefits previously defined by the families involved (for example, house repairs). By contrast, it may well be that REDD+ produces negative outcomes such as expropriation of land, restrictions on the use of forest resources that might threaten livelihoods, cultural traditions, knowledge, and spiritual connections that these communities have had for centuries with the forest, including the loss of biodiversity and environmental degradation. These outcomes can produce a rejection of REDD+ or other PES schemes from forest communities, as shown in the case studies. Both kinds of potential outcomes are important to consider prior to the implementation of REDD+ projects.

Chapters 3 and 4 suggest that the ability for REDD+ to produce positive social and environmental outcomes is influenced by two components: (i) the elements of design of the scheme; and (ii) the incidence of conditions at the local, national and international levels, for their appropriate adoption and successful implementation.

The design of a REDD+ scheme involves elements that are essential for producing positive social outcomes. These elements are based on the theory and on the successful initiatives analysed and include: (i) inclusive, full and efficient participatory decision making arrangements with a bottom-up approach to enhance the chances of positive outcomes; (ii) promotion and protection of forest-dependent communities' rights; (iii) a mechanism for a fair and equitable distribution of benefits; and (iv) provisions to ensure transparency and accountability. If these elements are present, it is more likely that REDD+ schemes could produce the expected outcomes. However, in order to implement a scheme with such a design also requires the incidence of conditions at the local, national and international levels. These conditions include: (i) the willingness of communities to participate; (ii) agreement on the forms of allocation and distribution of benefits derived from the scheme; (iii) capacity for the implementation of the scheme; (iv) political support; (v) institutional capacity; (vi) forest stakeholders participation; and (vii) suitable environmental characteristics for REDD+ activities.

These conditions provide a basis for assessing how feasible it is to adopt a desirable, REDD+ scheme in Guatemala that produces positive outcomes. But, as it is unlikely that Guatemala meets all these conditions, this proposal includes the creation of an independent agency with the aim of improving the conditions of forest communities and enhancing environmental and biodiversity conservation through forest management. The idea of creating such an agency is that it will have the autonomy and capacity to improve or develop the conditions for the implementation of positive REDD+ schemes and to ensure the continuity and consistency of efforts and processes between the multiple levels (international, national and local).

This chapter is organized as follows: Section 2 depicts the overall structure of what is needed for positive socially and environmentally REDD+ outcomes. Section 3 presents the elements of a design for positive REDD+ scheme; Section 4 indicates ideas about the conditions necessary at the local, national and international levels for the adoption and effective implementation of REDD+ in non-Annex I countries like Guatemala. Section 5 will propose an independent national-level organization for designing and implementing a REDD+ scheme, referred to as the Social and Environmental Agency (S&EA). This section will describe the structure, roles and responsibilities proposed for such an agency. Section 6 will describe the research methods used and the final section concludes the chapter.

5.2 What are the possible platforms for REDD+'s effective implementation?

Theory mentions about *innovation platforms* that brings together different stakeholders to identify solutions to common problems or to achieve common goals through the management of projects or programmes[ii]. An innovation platform could be defined as a space for learning and change. It is a group of individuals (who often represent organizations) with different backgrounds and interests. In the case of REDD+ pilot projects the actors are: forest communities, NGOs, local and national governmental institutions, researches, and the international community. The members come together to analyse the problem (management of forest carbon stocks, benefit sharing mechanisms, registering the project at national or international level and others), identify opportunities and

find ways to achieve their goals. They may design and implement processes and further activities as a platform or coordinate activities by forest community members.

These platforms ensure that different interests are taken into account, and various groups contribute to finding solutions. Used mainly by the private sector to gather information and improve networking among key stakeholders in a particular economic sector, they caught attention of development agencies at the end of the 1980s. They are now increasingly common in research and development of public and private initiatives[iii].

These platforms have been useful in agriculture because its issues tend to be complex, as they involve biophysical, socioeconomic and political factors and concern various formal and informal institutions. Some of these innovation platforms are known as Inter-Ministerial Platforms as they involve many governmental institutions. Some examples of innovation platforms are:

- The Consortium for Sustainable Development of the Andean Ecoregion (www.condesan.org) uses innovation platforms to address issues in natural resources management they engage local actors to discuss how to share benefits and resolve conflicts;
- The Nile Basin Development Challenge (www.nilebdc.org) uses to join forces between forest communities and local authorities to implement development local projects.
- The Convergence of Science-strengthening Innovation System Programme used innovation platforms in West Africa to improve smallholder agriculture. The platform studied bottlenecks in production systems and induced institutional changes in value chain and policymaking.
- The International Centre for Tropical Agriculture and its partners (www.alianzasdeaprendizaje.org) developed a regional “learning alliance” in Central America to improve market access for farmers through collaborative innovation.

These platforms have been beneficial as they:

- Facilitate dialogue and understanding among stakeholders and provide a space for them to create common vision and mutual trust;
- Enable partners to identify the bottlenecks hindering innovation and develop solutions beyond what individual actor can achieve alone for example, policy development, institutional change to mention a few;
- Create motivation and feeling of ownership of the processes and the implementation of projects and its solutions. People readily buy into projects and solutions they have been involved developing (ladder of citizen power).
- Facilitate the upward communication as weak actors are enable to express their views on an equal basis with powerful actors. They empower communities to demand and negotiate for services from the government and support organizations.

However, when relating innovation platforms to REDD+ scheme or PES projects, things get more complex, as there are many different actors, from different levels that participate in a REDD+ scheme at local, national and international level. There were no signals that REDD+ pilot projects around Latin America have been using innovation platforms for the design and implementation of their projects.

So, this raises a question: what platform is needed for positive socially and environmentally REDD+ outcomes? The following sections will provide of this answer.

5.3 What is needed for positive socially and environmentally REDD+ outcomes?

Previous chapters have provided theoretical 'grounds' (Figure 5-1) for the development of a 'win-win-win' outcome REDD+ scheme. These grounds consist of several interconnected elements that are essential for creating and implementing a REDD+ scheme. However, the adoption of a scheme with these elements requires the presence or development of particular conditions, some of which are countrywide and others are independent of what a single country can achieve. The latter ones are international conditions that directly influence the possible outcomes at the national level, however these conditions will not be deeply analysed as the main focus of this research is the national and local level. Both the elements for the design and implementation of a REDD+ scheme and the conditions are interconnected and determine the possible or likely outcomes that a scheme will deliver locally and nationally.

As it can be seen in table 4-2, each REDD+ pilot projects were implemented by different actors:

- Government
- Independent agency
- Semi-autonomous agency
- International NGO and communities
- Independent agency and communities

These implementing actors helped or not, for the achievement of the 'requirement' conditions for an effective implementation of REDD+ PES scheme. Considering that the ones being implemented by an agency have been the projects categorized as "dream" because of the achievement of the win-win-win benefits (or at least two), it means that creating an agency could be the way to put forward the claimed benefits of REDD+ scheme.

As it is unlikely that a country meet all these requirements, I put forward the idea of creating, at the national level, an agency to enhance the chances of achieving positive, social and environmental REDD+ outcomes. Figure 5.1 presents a graphic depiction of these ideas and the linkages between them and, together, they provide the theoretical framework.

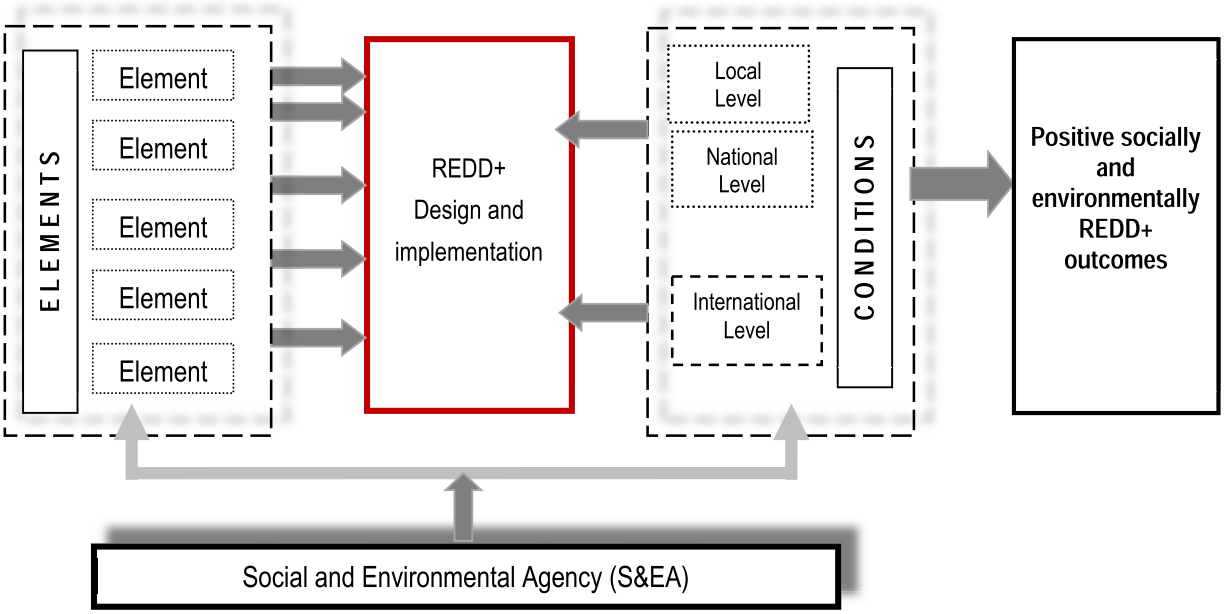

Figure 5-1 Necessary elements and conditions for positive REDD+ outcomes

The following sections will elaborate on these components and the underlying rationale for including them in my theoretical framework.

5.4 Elements of a design for a socially and environmentally positive REDD+ scheme

Some of the elements proposed were present in the dream initiatives of the case studies, while other elements aimed to address social and environmental concerns and issues that have been raised in the literature. For example, scholars point to the importance of participation in decision making processes, the distribution of benefits and the use, or not, of forest plantations for REDD+ pilot projects. The case studies have demonstrated how different projects have used, or not used, these elements, which have influenced the outcomes of the projects. That is why including this and other elements in the process of design will contribute to the expected positive outcomes. These elements are described in the following sections.

5.4.1 Inclusive, full and efficient participation and decision making arrangements

The first element considered as essential is the inclusive, full and efficient participation and decision making arrangements when designing a REDD+ pilot project by all actors. This element refers to what extent individual forest community members participate in the decision to get involved in the PES programme and, once they have joined, to what extent they take part in decisions regarding how incentives are going to be used at the community level. I identified this element based on the theory that highlights the importance of participation in processes

concerning forest management because forest communities have a daily presence in the forests, making them competent and legitimate stakeholders[369]; and also throughout the case studies were initiatives that demonstrated the significance of inclusive, full and efficient participation that, in some cases was not fully applied, therefore, producing negative outcomes as in the cases of NKMCAP and Madre de Dios. Combining elements of the "ladder of citizen power" proposed by Arnstein and knowing the scale of participation in REDD+ projects analysed by Lawlor et al (2013), could be useful to strengthen the effective participation of forest communities.

In the different initiatives, the participation and decision making processes of the government and NGOs at the national level have been active since REDD+ was initially proposed. In all the case studies analysed governments, together with NGOs, have been the leaders in designing and implementing these projects in a top-down approach. Even in the successful initiatives, like FONAFIFO, forest indigenous communities have argued that they did not participate in the overall design of the project, which demonstrated the importance of participation. In the nightmare cases, like NKMCAP, the lack of participation has produced negative outcomes for forest-dependent communities and even for the goals of the project. At the national level an inclusive participation system needs to be developed in which buyers, sellers and intermediaries participate and decide in collaboration about socially and environmentally common goals.

At the local level, forest groups and communities have been vulnerable for many years and for many different reasons such as a lack of education, a lack of property rights and a lack of inclusive, full and effective participation in national processes that affect their livelihoods. The findings from the analysis of the case studies showed that, in the case of Socio Bosque, local power structures and community hierarchies were the reason that impeded full participation which, therefore, translated it into negative feelings and expectations about the project. However, as Krause et al (2013) mentioned for Socio Bosque's case study, interfering with communal decision-making implicates a trade-off against respecting communal autonomy and inside decision-making processes, on the one hand, and the imposition of practices to reach full and effective participation of community members, on the other hand[370]. This communal autonomy is something that needs to be studied further in every project and also investigated in order to attain inclusive, full and efficient participation.

The full involvement of indigenous and non-indigenous forest communities should be considered from the very beginning of the design of REDD+ projects; and, as was mentioned in the Chapter 3, this full participation enhances engagement and ownership that could define the difference between a dream or mixed and nightmare projects. The cases of FONAFIFO in Costa Rica and Scolel Te project in Mexico are good examples of full participation with a bottom-up approach, in which the members of the forest communities in these schemes actively participated in the design and implementation of their projects.

[369] CPF. (2012) SFM and indigenous peoples. Collaborative Partnership on Forests-CPF. (p.1)

[370] Krause, T., Collen, W., & Nicholas, K. (2013). Evaluating safeguards in a conservation incentive program: Participation, consent and benefit sharing in indigenous communities of the Ecuadorian Amazon. *Ecology and Society, 18*(4).(N/p)

Engagement of forest communities involves more than a consultation processes and, as part of the inclusive, full and efficient participation at local level, more engagement is needed. Chapter 3, I identified that the theory mentioned the importance of effective and real free prior informed consent (FPIC) processes. The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) stipulated that FPIC of indigenous peoples should be obtained before any development that affects them can take place[371]. However, the practice shown in these case studies exposed that in initiatives like in Madre de Dios, the consultation and engagement processes were not realized, which brought as the rejection of the project as an outcome. Effective consultation processes, effectively applying FPIC mechanisms is what indigenous and non-indigenous forest communities have been demanding for many decades in the different projects that have been developed in their lands.

Further, in some cases, the involvement of women (FONAFIFO and Scolel Te) has been highlighted as important. Women's participation in forest resource management has been vital, as they provide the necessary resources (firewood and food) for the survival of forest families. Given their closer relationships with forests, women have gained knowledge, skills and experience[372] that have been used in some regions, and this experience could also benefit the implementation of REDD+ policies and strategies. In REDD+ projects their participation has been emphasized many times, as in the case of Madre de Dios and Scolel Te. Even though the case studies analysed did not consider women's participation as being different from men, in several cultures women are excluded from participating and making decisions. The theory has shown that women contribute meaningfully to forest management (patrol and monitor forests) and, because of this, women should be among the beneficiaries of forest-related sustainable development initiatives[373].

5.4.2 Protection of land, land use and carbon rights

Protection of land, land use and carbon rights is the second element when designing a REDD+ scheme. Lawlor et.al (2013) mentioned how it is thought that REDD+ may reduce poverty and, thus, produce a 'win-win-win' outcomes in situations where the local population's property rights are properly recognized or where REDD+ initiatives make efforts to improve their tenure security[374], and also that it could provide a reason to push forward tenure reform[375]; however, practice has shown that it faces significant constraints[376]. History provides evidence of how colonialism restrained rights, mainly land and land use, and expropriated forests from forest communities[377]. For that reason indigenous and non-indigenous forest communities have been rejecting REDD+ pilot projects, as they fear that the ambition of forest carbon revenues, combined with their lack of land tenure and the country's weak governance, may lead companies and powerful groups to take actions that threaten their livelihoods, such

[371] CPF. (2012) SFM and indigenous peoples. Collaborative Partnership on Forests-CPF. (p.2)
[372] Setyowati, A. (2012). Ensuring that women benefit from REDD+. *Unasylva, 63*(239), 57-62. (p.58)
[373] ibid. (p.57)
[374] Lawlor, K., Myers, E., Blockhus, J., & Ganz, D. (2013). Community participation and benefits in REDD+: A review of initial outcomes and lessons. *Forests, 4*, 296-318. (P.297)
[375] Larson, A. M., Brockhaus, M., & Sunderlin, W. (2012). Tenure matters in REDD+. Lessons from the field. In A. Angelsen, M. Brockhaus, W. Sunderlin & L. Verchot (Eds.), *Analysing REDD+. Challenges and choices*. Bogor, Indonesia: CIFOR (p.154)
[376] ibid. (p.154)
[377] ibid. (p.154)

as: land grabs, evictions, forest access restrictions and reversals of tenure reforms[378]. For years, forest communities have been fighting for the recognition of their rights (property and land use rights) and now with REDD+ the issue is discussed one more time at both the international and national levels.

It is known that tenure reforms take time and resources, both for the political process of negotiating conciliation, passing new laws and for the technical aspects like demarcating and preparing land titles[379]. Also, in countries like Guatemala, many powerful community structures oppose the legalization of land in order to keep maintain their illegal activities. Political will is also another factor that could influence the establishment of the necessary property rights. However, Larson et.al (2012) explained that land tenure faces many challenges, such as overlapping titles or claims, land grabbing and elite capture, and outdated or non-existent land zonification, among others[380]. Clarifying and strengthening rights can in itself contribute to decreasing deforestation and degradation[381]. For that reason, I believe that clarifying rights is a commitment that project developers should establish with sellers of ES; mainly because forest-dependent communities have been the ones maintaining the forests as they depend on them and that is one of the reasons many non-Annex I countries still have forests.

In spite of this, and in order to guarantee forest communities' rights, countries and project developers should search for alternatives in which forest communities can feel secure in knowing that they will not be expropriated?? of their lands. For example, in Scolel Te, project developers and forest communities signed a letter of agreement, which is not a legal document does guarantee that forest communities will continue to be in control of the land. However, not all project developers have found or implemented alternatives. In the case of Socio-Bosque, forest communities that lack property titles are excluding communities from the programme[382], and even though the country has been going through a process of land titling in 2011, it has been slow and many forest groups are still barred from the programme. The lack of alternatives to secure tenure land rights could promote rejection towards the project, as in the case of NKMCAP, where the land and its rights were bought by an international company and a rejection of the project was the outcome of that purchase. In other cases, as in Peru and Costa Rica, the vast majority of land is owned and administered by the government but under the de facto control of forest communities[383], which gives them a certain security for their land.

However, land tenure rights are not the only issue that need to be developed and established within the design of REDD+ scheme. REDD+ scholars have mentioned that the assignment of carbon rights appeared to be uncertain

[378] Lawlor, K., Myers, E., Blockhus, J., & Ganz, D. (2013). Community participation and benefits in REDD+: A review of initial outcomes and lessons. *Forests, 4*, 296-318. (P.297)

[379] Larson, A. M., Brockhaus, M., & Sunderlin, W. (2012). Tenure matters in REDD+. Lessons from the field. In A. Angelsen, M. Brockhaus, W. Sunderlin & L. Verchot (Eds.), *Analysing REDD+. Challenges and choices*. Bogor, Indonesia: CIFOR (p.155)

[380] ibid. (p.159)

[381] ibid.(p.155)

[382] de Koning, F., Aguiñaga, M., Bravo, M., Chiu, M., Lascano, M., Lozada, T., & Suarez, L. (2011). Bridging the gap between forest conservation and poverty alleviation: the Ecuadorian Socio Bosque program. *Environmental Science & Policy, 14*(5), 531-542 (p.538)

[383] Larson, A. M., Brockhaus, M., & Sunderlin, W. (2012). Tenure matters in REDD+. Lessons from the field. In A. Angelsen, M. Brockhaus, W. Sunderlin & L. Verchot (Eds.), *Analysing REDD+. Challenges and choices*. Bogor, Indonesia: CIFOR (p.167)

for many projects[384]. Initiatives showed different possibilities, such as those rights owned by the state, project developers/investors, local populations or a combination thereof[385]. For example, in the dream initiative of FONAFIFO, the Costa Rican government established in the PES contracts that the rights to any resulting emission reductions belonged to FONAFIFO[386], while other initiatives did not mention about the ownership of these rights. Because of this, the establishment of ownership of carbon credits and the distribution of revenues has to be agreed and established in the design of REDD+ scheme.

Considering the analysis of the case studies, and in order to have a successful REDD+ scheme, it is important that this topic is not just considered but agreed on as an element of design. This is an important element in the design of REDD+ scheme that could enhance the confidence between sellers of the ES and other actors involved.

5.4.3 Mechanism for a fair and equitable distribution of social benefits derived from REDD+ schemes

The third element is the development of a mechanism for a fair and equitable distribution of benefits derived from REDD+ schemes (or PES-like projects). By mechanism, what is meant is the establishment of rules, institutional arrangements and the process of decision making in which benefits are going to be distributed. This mechanism will determine the percentage allocation each activity will receive from the total of revenue from the sale of carbon credits. The distribution should consider the following:

(i) Forest activities such as monitoring, forest inventory and others;

(ii) Project developer's assistance (fee), as in the case of FONAFIFO, where project developers (NGOs) receive a fee of between 12% and 18% of the payment;

(iii) Payment for sellers of ES: Distribution of payments according to different forest activities and the hectares registered for the project.

(iv) Buffer percentage as a contingent fund, as in the case of Scolel Te in which 10% of the payment is withheld to cover the risks of possible natural disasters and uncertainties, such as the non-compliance in the delivery of the expected carbon credits[387].

This mechanism will provide confidence in how distributions of the benefits are going to be managed and who are going to receive them. Case studies like Socio Bosque have mentioned the presence of local power structures and community hierarchies that have been influencing the fair distribution of benefits. In the same programme and,

[384] Lawlor, K., Myers, E., Blockhus, J., & Ganz, D. (2013). Community participation and benefits in REDD+: A review of initial outcomes and lessons. *Forests, 4*, 296-318. (p.310)

[385] ibid. (p.310)

[386] Pagiola, S. (2008). "Payments for environmental services in Costa Rica." Ecological Economics 65(4): 712-724. (p.715)

[387] Ruiz-De-Oña-Plaza, C., et al. (2011). Constructing Public Policy in a participatory manner: From local carbon sequestration projects to network governance in Chiapas, Mexico. Carbon Sequestration Potential of Agroforestry Systems: Opportunities and challenges, Advances in Agroforestry 8. B. M. Kumar and P. K. R. Nair, Springer. (p.253)

according to research done by Krause et. al (2013), the authors found that equity in the distribution of benefits has not been achieved[388].

As a way to promote fairness in the payments, the design should consider payments according to whether the carbon sequestered originates from different activities, such as: (i) reforestation through plantations; (ii) protection of existing forest, forest conservation and management; (iii) natural forest regeneration; and (iv) agroforestry systems. As biodiversity and environmental conservation is considered as an expected outcome of REDD+ schemes, those activities that included enhancement of biodiversity conservation should receive a higher payment than those where biodiversity was not present, as in forest plantations or agroforestry systems. The establishment of payments according to the different activities should be carefully designed as it could promote negative activities like the conversion of natural forests into plantations; thus, negative environmental impacts.

For example, in FONAFIFO the payment per hectare is uniform across all contracts within each modality[389]. In the same context, the Socio Bosque programme offers an amount of $30.00 per hectare of forest conserved. However, this amount reduces when the amount of land registered in the programme exceeds 50 hectares[390]. In contrast, for Scolel Te, the price of carbon credits varies according to whether the carbon sequestered originates from agroforestry-reforestation activities, which receives higher price, or conservation and management of existing forest stocks with a lower price[391].

The distribution of benefits should be fair and equitable according to the activities that forest communities undertake. So the design of these elements as part of the design of the REDD+ scheme could enhance confidence of participants towards the scheme.

5.4.4 Provisions ensuring transparency and accountability

The final elements of design for a positive social outcome in REDD+ scheme are provisions ensuring transparency and accountability. As seen in the literature, one of the challenges and risks identified about REDD+ schemes is related to guaranteeing transparency of the money flow both through the international mechanisms and, domestically, within the recipient countries[392]. According to the research, the lack of competent forest governance around the world, together with how the forest sector suffers from illegal and corrupt practices, is one of the reasons for global deforestation. Forest resources and land are key resources for economic development and they are

[388] Krause, T., Collen, W., & Nicholas, K. (2013). Evaluating safeguards in a conservation incentive program: Participation, consent and benefit sharing in indigenous communities of the Ecuadorian Amazon. *Ecology and Society, 18*(4), N/P.

[389] Daniels, A. E., et al. (2010). "Understanding the impacts of Costa Rica's PES: Are we asking the right questions?" Ecological Economics 69(11): 2116-2126. (p.2117)

[390] Reed, P. (2011). REDD+ and the indigenous question: A case study from Ecuador. *Forests, 2*, 525-549. (p.534)

[391] Corbera, E. (2005). Bringing development into carbon forestry markets: challenges and outcomes of small-scale carbon forestry activities in Mexico. In D. Murdiyarso & H. Herawati (Eds.), *Carbon Forestry: who will benefit?* Bogor, Indonesia: Center for International Forestry Research-CIFOR. (p.45)

[392] Global-Witness. (2010). Understanding REDD+. The role of governance, enforcement and safeguards in Reducing Emissions from Deforestation and Forest Degradation. Washington, DC: Global Witness. (p.4)

becoming increasingly lucrative because of the flow of global demand for commodities[393]. For these reasons, these two elements are essential as they refer to the overall management of funds in REDD+ schemes. Project developers should consider the costs of the design and implementation, transaction costs and social benefits. This last one is the one that sometimes does not receive any funds. The design of the project should include a transparent system that demonstrates accountability on how finances are to be distributed and used (equitable and fair).

According to the theory, one of the principal weaknesses some non-Annex I country's face is the lack of transparent and accountable provisions. Many non-Annex I governments have fragile governance structures, weak institutions and poor legal frameworks and/or enforcement proceedings, which have led to extensive illegal corruption and governance indicators[394]. According to Transparency International (http://cpi.transparency.org) Guatemala ranks 123 out of 175 in the Corruption Perceptions Index, which is based on how corrupt their public sector is perceived to be[395].This demonstrates the special attention that the issue needs to receive.

Experience in the field have shown that financial management of governments is poor and bureaucratic in comparison to experiences with independent agencies, organizations and, even intermediaries, like NGOs. This could be seen in the six case studies analysed, where the funds of the projects were managed by different groups: the dream projects showed transparent systems in which participants of the PES/REDD+ projects knew how the funds where managed. These actions enhanced confidence among participants in the scheme, which strengthened the PES projects. In contrast, nightmare initiatives, like NKMCAP, showed that the lack of these elements has been one of the reasons that projects have failed, as indigenous forest communities did not know how the money was spent and by whom.

On the other hand, a REDD+ scheme needs to be accountable to all the forest stakeholders involved (buyers, sellers and intermediaries of ES negotiations) during the life of the project. This could be done through the proposed mechanism for a fair and equitable distribution of social benefits in which a periodical (four monthly) presentation of results regarding the costs of the diverse activities could be established, and also through an annual report. The establishment of transparent and accountable provision will guarantee that funds are well managed. The theory also mentions that countries with sound, transparent and accountable systems are more attractive to international investors, as it guarantees that their funds are well used.

In conclusion, I consider that these are the necessary elements for the design of a REDD+ scheme that is more likely to produce positive, social and environmental outcomes. The development of these elements for the 'ideal design' of REDD+ scheme will be assessed against the design of REDD+ pilot projects that Guatemala has already

[393] UNREDD. (2012). Strengthening transparency and accountability in REDD+ in Africa. Lusaka, Zambia: UNREDD Programme and UNDP. (p.2)
[394] Global-Witness. (2010). Understanding REDD+. The role of governance, enforcement and safeguards in Reducing Emissions from Deforestation and Forest Degradation. Washington, DC: Global Witness. (p.5)
[395] http://cpi.transparency.org/cpi2013/results/ Accessed on 16.02.2014

adopted, which raises the research questions: *(1) What are the shortcomings of the design of the REDD+ scheme that Guatemala already has adopted?* In addition, other research questions are: *(2) How much agreement is there among REDD+ stakeholders on the desirability of the design of a scheme such as outlined here?* And related to this, *(3) Is it possible to create or develop such a scheme considering these elements of design?*

In order to adopt and implement such a scheme requires that certain conditions at the different levels are present. The following section will explain what conditions are necessary to be present at local, national and international levels.

5.5 Conditions for the adoption and effective implementation of a socially and environmentally positive REDD+ scheme in Guatemala

This section will describe the conditions identified from the theory and from the various initiatives analysed. These conditions vary with each level of implementation.

5.5.1 Guatemala's conditions at the local level

This section explains the conditions at the local level that I think are necessary for the implementation of socially and environmentally positive REDD+ scheme in non-Annex I countries like Guatemala. From my point of view, these conditions are the most important for the implementation of REDD+, because indigenous and non-indigenous forest communities are the main players who will make REDD+ work or not.

5.4.1.1 Understanding and willingness of forest communities to participate in REDD+ scheme

The theory chapter (Chapter 3) mentioned the assumption that forest-dependent communities will be willing to participate in PES schemes or REDD+ pilot projects once they understand their liabilities, possible risks, costs and potential benefits associated with REDD+. However, the case studies have shown that this willingness is not just tied with understanding but also with their inclusive and full participation in all the process. As seen in the previous section, inclusive, full and efficient participation is an element in the design of a REDD+ scheme; but I believe that understanding and willingness of forest communities is a condition that needs to be present at a local level, for them be able to fully participate in the design and implementation of REDD+.

The theory and case studies chapters demonstrated the importance of forest communities' need to be guaranteed that their management of forests will not be compromised by the adoption of REDD+. Right now many forest communities fear the loss of existing benefits derived from the forests and that with REDD+ they could lose their land. If forest-dependent communities have the confidence that they will not be expropriated from their land (respecting their rights) and will receive economic incentives to keep their forests standing it will be easier to gain their willingness to participate in REDD+ scheme. Understanding the whole structure of REDD+ is tied in with the acceptance of participating (willingness) or not. The case of Scolel Te is a good example of understanding and

willingness. Forest communities in Mexico first participated in regional meetings and educational workshop[396] where project developers explained about REDD+'s responsibilities, benefits, risks, advantages and disadvantages and, only then, did they decide to join the programme or not. Willingness to participate, and better options to achieve positive, socially and environmentally outcomes, will be produced if forest communities have a very good understanding of the potential costs, benefits, risks and responsibilities that are involved in the implementation of REDD+ projects.

On the other hand, the lack of information about REDD+ schemes, especially in relation to the risks, benefits, advantages and disadvantages could produce negative attitudes towards a project. In the case of Peru Madre de Dios, forest communities did not have any information from project developers about the project. The outcome of this lack of information was the rejection of the project, which could then threaten the overall implementation of the project, not just in social terms but environmentally as well.

This raises the following research questions: *(4) To what extent forest-dependent communities are willing to participate in REDD+ scheme? (5) What do forest communities know about REDD+ and how may the adoption of REDD+ scheme affect their relationships to the environment and to the ecosystem? And; (6) How REDD+ will/may impact on the ground?*

5.4.1.2 Social benefits of REDD+, agreed by indigenous and non-indigenous forest communities

The second condition is an agreement on the type of social benefits forest communities will receive from the REDD+ scheme. The decision about the type of social benefits that the forest community will receive is something that has to be agreed between the sellers of the ES and project developers before the implementation of the project. With this prior agreement forest-dependent communities will have certainty of what to expect in terms of the social benefits from the scheme. In relation to environmental benefits, it is expected that forest communities will see the improvement on the environment and of its biodiversity.

The agreement on the type of social benefits before the implementation of the scheme provides engagement as participants know what to expect and what they are working for. In the case of Scolel Te, the development of Plan Vivo done by participants guaranteed them of the benefits they received like: 249 fuel-efficient stoves for the members of one community or house improvements for other communities; or in Socio Bosque in which the investment plans described how the incentive was going to be used by the community like better school equipment, educational scholarships and communal projects like water tanks. Research done by Krause et al (2013) explained

[396] Beniest (1994) as cited by Ruiz-De-Oña-Plaza, C., et al. (2011). Constructing Public Policy in a participatory manner: From local carbon sequestration projects to network governance in Chiapas, Mexico. Carbon Sequestration Potential of Agroforestry Systems: Opportunities and challenges, Advances in Agroforestry 8. B. M. Kumar and P. K. R. Nair, Springer. (p.253)

that in Socio Bosque, decision to join the programme and the type of benefits the community received required majority voting in community assembly[397].

When participants are not involved in the design of the scheme and do not know what to expect, any benefit could be perceived in a negative manner. The initiative of Madre de Dios and NKMCAP are good examples of what happens when social benefits are not agreed to before the implementation of the project. In the case of Madre de Dios, forest communities received computers and telephones[398] as "social benefits", which were rejected as they were not expecting these kinds of benefits. The outcome of this was frustration towards the project because their priorities of needs were not considered.

In this regard, I believe that an important local level condition that needs to be present for a positive socially and environmentally REDD+ outcomes is an agreement from the participating actors (sellers of ES) of the social benefits they should expect to receive. This raises the research question: *(7) Whether the communities involved do, or can, agree on the type of social benefits they may want to receive?*

5.4.1.3 Capacity of communities to implement the scheme

The forest community's capacity is another condition that is required at the local level. The theory mentioned about the costs and lack of local capacity that raised questions about how REDD+ can be implemented effectively in the short term while taking local conditions and needs into account[399]. It also mentioned the need of capacity for the forest communities to develop forest activities such as: monitoring, forest inventories, control for illegal activities and others related to forest management. However, experience from the field has shown that forest communities need other types of capacity to implement the scheme. By this I mean that:

(i) Forest communities will have other sources to fulfil their needs for their livelihoods, such as sustainable agriculture, agroforestry or others. However, these activities should be monitored, as case studies like NKMCAP have shown that leakage was a common problem when the forest communities involved in REDD+/PES projects did not have alternative areas or sources to fulfil their needs and move to other areas (mainly outside the area of the project) to fulfil their livelihood needs.

(ii) Forest communities will have to be organized as a community if they are not already, as some decisions, such as the type of social benefits, require a communal agreement. Some indigenous forest communities have their own customary organization and even their own way to make decisions on behalf of the

[397] Krause, T., Collen, W., & Nicholas, K. (2013). Evaluating safeguards in a conservation incentive program: Participation, consent and benefit sharing in indigenous communities of the Ecuadorian Amazon. *Ecology and Society, 18*(4), N/P.

[398] Espinoza, R., & Feather, C. (2011). The Reality of REDD+ in Peru: Between theory and practice. In AIDESEP & FPP (Eds.), (pp. 64): AIDESEP, FENAMAD, CARE, FPP. (p.26)

[399] Sunderlin, W., Martin, A., & Brown, K. (2010). Learning from experience. Forest community approaches to improving livelihoods and reducing deforestation. In O. Springate-Baginski & E. Wollenberg (Eds.), *REDD, forest governance and rural livelihoods. The emerging agenda*. Bogor, Indonesia: Centre for International Forestry Research-CIFOR (p.36)

community. This organization is very important because forest communities will participate in REDD+ pilot project as a group.

These local conditions are very important as they involve fulfilling the community's needs, decision making processes as a community and technicalities related to forest management. Lack of this condition could threaten the effective implementation of the scheme, generating negative outcomes. This raises the following research question*: (8) How much capacity do the affected communities have?* And, if inadequate, *(9) How can this capacity within forest communities be strengthened and by whom?*

5.5.2 Guatemala's conditions at national level

The conditions at the national level refer to different actors related to forestry such as: governmental institutions, private sector, academia and NGOs, considering only those co-administrating protected areas and natural resources. These conditions also denote the geographical area (physical characteristics) of the country. With the aim to have successful REDD+ projects, I propose the following conditions that countries need to have or develop at the national level.

It is important to have in mind that FCPF focuses on national-level participation and requires a non-Annex I country to make a nationwide commitment to reduce its deforestation rate. FCPF will not support project-level activities without a national commitment to reduce deforestation.[400]

5.4.2.1 Political support for designing and implementing REDD+ as a PES scheme

At the national level, political support is very important for the successful implementation of a REDD+ scheme. It is worth mentioning that Guatemala has a forest legal structure which has contributed to different types of forest conservation programmes and activities that has benefited forest communities. Many of these are related to the payment of incentives for the management of different types of forests (natural forests, reforestation programmes and management of either natural or plantations). These incentives known as PINFOR and PINPEP. The former is an economic incentive that the State provides to the owners of forests to keep their forest standing. The main constraints of this incentives are: (i) it requires a minimum of land extension; and (ii) property land rights. The later was recently established and it was developed to strengthen the weaknesses found in the previous mechanism. These incentives have provided of economic incentives, which at the end are not sufficient to supply their needs. REDD+ has been seen as a complementary economic benefit of something that these communities have already been doing.

[400] Myers, E. (2008). Policies to Reduce Emissions from Deforestation and Deforestation (REDD) in developing countries. An examination of the issues facing the incorporation of REDD into market-based climate policies. In A. Forester & S. Atwater (Eds.). Washington, DC: Resources for the Future. (p.28)

However, the main weakness of the forest legal structure is the change of political administration every four years. In every change, more than the 50% of the staff of public institutions are new, which means that they need to go through a process of "learning and capacity building". Meanwhile, illegal loggers take advantage of the lack of experience and proceed with their illegal activities. Additionally to this, drug dealer activities have grown in Guatemala, many of which have deforested large land extensions for the creation of illegal airports to continue with their illegal activities at international level. It has been very difficult to take law actions against these groups as they own heavy army weapons, even better than the once used by national policemen.

Regarding the political and legal framework related to forest management, there is evidence of political support for the design and implementation of REDD+ schemes in Guatemala, even though many of the political staff has little or no idea of what involves a REDD+ project.

The theory mentioned that within REDD+'s negotiations and evolution, governments play a double role: (1) at the international level, communicating the country's projects, goals, achievements and commitments; and, (2) at the local level, informing about the outcomes and responsibilities of these conferences. However, in most cases just the former happens. Many governments of non-Annex I countries commit themselves at the international level with actions that sometimes they do not implement at national or local levels, because of a lack of funds or weak institutional capacity like the respect for forest communities' rights or the implementation of FPIC processes.

Governments in many non-Annex I countries have different priorities such as health or educational systems, food security and access to potable water to mention some examples, but environmental issues are not at the top of their list. The adoption and implementation of REDD+ needs political support. However, this political support is connected with knowledge that many political officers do not have because the topic is highly technical. Some governments go through capacity building processes; however, this is lost once the political period is finished. In the case of Guatemala this happens every four years.

As shown from the theory, a REDD+ scheme was proposed as a national programme where governments facilitate and lead different actions like the development of a national REDD+ strategy and framework with inclusive, full and efficient participation of forest communities, the private sector (related to forestry), the academy and NGOs. For that reason, political support is important and necessary in order to avoid potential threats that the scheme could bring to indigenous and non-indigenous forest communities. Some of these threats could be related to persons with unethical behaviour, known as "carbon cowboys". These carbon cowboys are promoting international sales of forest carbon credits and have charged indigenous forest communities for that service, offering economic benefits that communities never receive. Political support will provide the guarantee that actions are taken in the way they should and also could alert forest communities of the presence of this kind of unethical people.

The dream and mixed case studies, demonstrated how important political support is for the implementation of REDD+ and PES scheme projects. In these projects, governments have provided a guarantee that these

programmes are well supported. However, as every country and government is different, this raises the following research question: *(10) How much political support for REDD+ or any other PES scheme is there in Guatemala?* And*, if weak or absent inadequate, how can this be strengthened in order to implement an effective REDD+ scheme?*

5.4.2.2 Institutional capacity for the design and implementation of REDD+ pilot projects

In many non-Annex I countries, environmental governmental institutions often have insufficient human and financial resources; because the overall economic context of the country means they have other priorities than environmental conservation. Because of this, their institutional capacity is weak, deficient and very bureaucratic. Some of the weaknesses that non-Annex I countries have been facing are:

(i) Political changes that occur even within the same political administration and government institutions often suffer of these changes from the Minister, vice-ministers to technical staff, which affects the continuity of processes, projects and programmes. This means every new political administrator has his/her own group of professionals and every government institution is packed with new staff. This happens every four years and means that the existing policies, strategies and programmes are paused or erased. Sometimes it takes time to convince the new authorities, even to develop an understanding on highly technical topics, like REDD+, to continue with the existing projects.

(ii) Corruption at the country level due to weak governance structures and unclear international REDD+ rules that come with substantial financial gains give rise to reservations that possible processes and malpractices could proliferate in non-Annex I countries[401].

(iii) Weak law implementation and enforcement, as many non-Annex I countries do not have the financial and human resources to implement and enforce the law. Some examples of this are related to illegal activities (illegal logging or drug dealers) within the implementation areas, where governments have the knowledge about these activities, but cannot enforce the law because of a lack of formal and legal procedures, human and financial resources.

(iv) Top-down approaches used by governments as a way to implement projects. Evidence has shown that top-down projects in non-Annex I countries have not had the expected positive social and environmental outcomes. This is because forest communities like to be involved in processes where actions are taken for the land that provides their resources for living. A 'command-and-control' approach is another action that has been rejected by forest communities, because of the abuse of power that some governmental

[401] Dermawan, A., Petkova, E., Sinaga, A., Muhajir, M., & Indriatmoko, Y. (2011). Preventing the risk of corruption in REDD+ in Indonesia. Jakarta and Bogor, Indonesia: United Nations Office on Drugs and Crime, Centre for International Forestry Research (CIFOR). (p.1)

officials have had when trying to implement projects according to official's criteria with the intention to gain benefits for their own.

(v) Non-Annex I countries should have a voice and should be heard at the international level on issues that impact their populations. It is the passive or active presence and participation at the international level that determines the outcome of international treaties. The lack of this kind of participation, linked to constant political changes, could be seen during United Nations negotiations (UNFCCC) when non-Annex I countries participate with one or two new representatives every year at every conference; and most of the time, these representatives lack negotiations skills, an understanding of the topic and have no decision making power to accept or reject proposals from Annex I countries.

In addition to the government sector, the institutional capacity of other forest stakeholders like NGOs, the private sector, forest community's organizations and others is also important. Many of these have an active role at national and local levels with PES schemes like REDD+ pilot projects. For example, many NGOs are the co-administrators of protected areas who are taking actions for the implementation of REDD+ pilot projects. For that reason the institutional capacity of any organization, institution or entity, should be considered.

The required institutional capacity for REDD+ pilot projects needs to:

(i) Have enough skilled human resources with knowledge about the topic and understanding of international and national markets for forest carbon credits;
(ii) Professionals with negotiation skills and decision-making capacity at national and international levels;
(iii) Capacity and knowledge about the resolution of conflicts, approval or rejection of projects and the ability for to construct a dialogue between buyers and sellers of ES;
(iv) Reliability for the transparent management of funds and capacity for the distribution of benefits.

In addition, the foundation for an efficient institutional capacity is related to its financial resources that will allow the institution to operate adequately. This raises the following questions: *(11) At the national level, what institutional capacity exists in Guatemala to implement REDD+ effectively?* And, *if inadequate, how can it be strengthened?*

Conversely, in order to efficiently implement REDD+, this condition needs to be strengthened. In some of the case studies, the design and implementation of REDD+ was done by an independent structure that implemented some of these activities. In the case of Costa Rica, the creation of a semi-autonomous agency, FONAFIFO, has been in charge of the implementation of projects at national and local levels. Similarly, with Socio Bosque, where this agency linked to the Ministry of Environment of Ecuador (MAE) has been in charge of PES projects; and Scolel Te, where AMBIO, a technical unit, is responsible for the implementation of PES projects together with the forest communities. The creation of these independent units has positively affected the attainment of the 'win-win-win' outcomes of these PES schemes making of this, a key requirement, in order to implement or develop the other

conditions for an effective implementation of REDD+ scheme. The idea of creating an independent agency at national and local level is itself a condition that will be put forward later in the chapter.

5.4.2.3 Involvement of forest stakeholders in REDD+ scheme

This condition involves the involvement of forest stakeholders such as: the private sector, academia, indigenous and non-indigenous forest organizations and NGOs. Research done by Lawor et al (2013) showed that, from 41 REDD+ projects across 22 countries, conservation NGOs are involved in 16 (11 involved international NGOs and nine involved national NGOs); for-profit companies were involved in 21 (15 involved international companies and four involved national companies); international donors and foundations are involved in the development of six of the projects and national governments in two. Just one project was initiated and implemented by the local community themselves[402]**.** This demonstrates how different actors with different interests are involved in the implementation of REDD+ projects, which some have been independently implemented without government participation.

The main idea of this condition is that these five forest stakeholders participate in an inclusive manner in REDD+ schemes, joining financial and human resources and providing their own expertise and knowledge. This inclusiveness means that each will keep doing what they have been doing until now but joining efforts and moving towards a common goal in order to achieve a 'win-win' REDD+ outcomes. None of the case studies analysed have undertaken this inclusive approach before. This raises the research question: *(12) Is there a process for the inclusive participation of all forest stakeholders? If not, can it be established?*

5.4.2.4 Suitable environmental characteristics for REDD+ activities

The last condition at the national level is finding suitable environmental characteristics for the implementation of REDD+ pilot projects. This means that the country/projects need to have the appropriate land extension conditions to promote REDD+ activities in order to be cost-effective. The theory mentioned about the costs related to the implementation of REDD+ pilot projects which are cost-effective in large extensions of land, otherwise the project could be very expensive. Deforestation and forest degradation is a concern in non-Annex I countries, and forest fragmentation is commonly found in these countries. For that reason, the environment is important in the development of a REDD+ pilot project. The more land and forests within a project, the more carbon storage and land to promote the (+) of REDD+) However, REDD+ scheme also considers the enhancement of forest carbon stocks, through reforestation, which could be proposed as part of a project, even though registration of this activity increases the costs. This condition raises the research question: *(13) Does Guatemala have suitable environmental characteristics to implement REDD+?*

[402] Lawlor, K., Myers, E., Blockhus, J., & Ganz, D. (2013). Community participation and benefits in REDD+: A review of initial outcomes and lessons. *Forests, 4*, 296-318. (P.301)

In general terms at national level, another question raises: *(14) Is it possible that creating a special purpose REDD+ agency will make a difference of improving the conditions of Guatemala?*

The following section will analyse the proposal of how non –Annex I countries could develop these elements and conditions for REDD+ to work on the ground.

5.6 Independent national agency for the management, design and implementation of REDD+

The idea of an independent national level agency came as a result of the analysis of the findings between dream/mixed and nightmare projects, where a key aspect was the use of an independent agency for the implementation of different processes in REDD+ and PES projects, in order to get social and environmental positive outcomes. In this section I will further explain and elaborate on this idea.

REDD+, as any other PES project, may have the potential to produce a 'win-win' outcome with positive social benefits and environmental outcomes in non-Annex I countries like Guatemala but only if the above conditions are present. To meet these conditions governments are required to be well committed, to understand and have the capacity (human and financial) to implement what is needed. Yet, in many non-Annex I countries governments with these characteristics are uncommon.

For those reasons, I propose the creation of an independent national level agency for the management of REDD+ scheme and, possibly, other PES-like scheme activities. This independent national level agency will emphasise its efforts towards a socially and environmentally positive outcomes. The Social and Environmental Agency (S&EA), as I name it, will be an autonomous institution and will act as the intermediary between sellers and buyers of the ES. Many projects have considered the development of independent organizations for the management of REDD+ actions; however the structure, role and responsibilities that I'm proposing have never been proposed before as it involves many levels or coordination and participation with different actors.

Chapter 3 mentioned how REDD+ should be structured as a 'governance without government' scheme. Roseanu (1992) described how the term governance embraces government. Considering this, I propose a 'governance outside government' structure in REDD+, in which the government is still a vital part for the S&EA. However its participation is, in hierarchical terms, is at the same horizontal level as other participants and with the same decision making capacity. This means that processes, projects and programmes will not stop every four years with political changes, but that every new political party will need to be capable to fit in an ongoing process within the S&EA.

The following section will present some general ideas and details regarding the agency's structure and functions, the details will need to be determined via a process of discussion and negotiation with the participating actors.

5.6.1 Why and how the 'independent agency' might assist in producing socially and environmentally positive REDD+ schemes

The idea of this independent agency is that it could be the strength against some of the identified weaknesses that governments at national level have. With an independent agency, projects like REDD+ scheme will have better chances to produce socially positive outcomes because:

(i) Its structure, independent of governments, will promote continuity in processes and projects. The staff who will comprise this agency will be professionals with knowledge on the topic and with different and necessary skills like: negotiations, conflict resolution and others. The case of Socio-Bosque in Ecuador is a good example of how political changes can negatively affect the continuity of processes, mainly when a new government in charge comes with new policies, strategies and ideas to implement. With this in mind, the structure of the agency will be integrated with representatives of every sector, so political changes political changes will not affect the continuity of projects, as the main decisions will be taken by the rest of participants. With every new political change, governmental representatives will have a chair in the board of the agency that will allow them to integrate in the on-going process.

(ii) In relation to actors involved, REDD+ links many actors with different interests; some interests revolve around revenue, others around livelihoods and others around biodiversity conservation and the reduction of climate change effects. Independently of what their motives and interests are, they all have a special interest that should be used to make REDD+'s implementation feasible and the outcomes achievable for all actors involved like sellers and buyers of the ES. This could be achieved through the development of the S&EA, where every forest stakeholder participates at the same level and with the same power for decision-making. In that regard, two working approaches will be necessary: (a) bottom up approach in which forest-dependent communities and land owners will propose its own forest management plan;, and (b) agreed top-down approaches that will guide actions and activities in the overall management of the scheme.

(iii) For the international arena the staff that comprise this agency will be professionals with different skills, which will make the participation of the country at international level be active and strategic in order to propose or reject ideas that could affect, one way or another, the implementation or the outcomes of REDD+ projects within the country. Because this agency will be have the power to make decisions at international level its participation will be critical for decisions that are going to be implemented at national and local levels.

(iv) The management of funds will be transparent, equitable and accountable and that will reduce the possibilities for corruption by unethical behaviour. Members of the agency will develop a mechanism

(explained in Section 5.3.3) and members of the S&EA will be involved in the financial decisions. This transparency will strengthen the agency which then will attract international investors.

(v) The human and financial capacity will allow the S&EA to initiate a process of developing the elements proposed for the design of REED+ scheme. As every sector will have representatives, it is expected that qualified professionals and forest managers will integrate the S&EA.

(vi) The S&EA will play a role in enhancing or developing the conditions for the implementation of REDD+ scheme at local and national levels and, at the same time, will base its decisions according to the law, as a way to implement it.

5.6.2 Structure of the Social and Environmental Agency (S&EA)

The purpose of this section is to describe what the structure of the S&EA is and how different sectors will contribute to its operation at the national level. Until today, the government sector has been developing top-down frameworks, policies and strategies in its eagerness to apply for international funds; NGOs have been acting as intermediaries trying to design and implement REDD+ pilot projects that could benefit forest communities, the environment, and themselves with the administration fee they charge for developing projects; the private sector has been pushing forward their interests to apply for funds with private and independent projects; and social organizations that are present at the national and local levels are fighting for forest communities rights. However, even though all actors have their own interests, they all share similar interests regarding REDD+ projects which is the payment to keep forests standing. Because of this, I believe that all actors have something to contribute in their own way that could strengthen and influence REDD+ at national and local level, and the country's participation at the international level for the development of a framework that could guide countries' actions to achieve socially and environmentally positive outcomes.

The actors that should participate in the S&EA and what they can contribute are:

(i) Academy: The academy is the generation of knowledge and because of that, its role within the agency would be the provision of updated information on issues related to REDD+ and PES schemes, at international and national-local level. This sector can provide of information that will be used for decision making processes.

(ii) NGOs: these organizations have the experience and incidence in many forested areas, mainly protected areas, of non-Annex I countries. In many cases, they share the responsibility of the management of these areas through a government-private co-administration. Their participation and contribution to S&EA is related to their experience to deal and work with indigenous and non-indigenous forest communities.

(iii) Private sector (those related to forestry): The private sector relating to forestry could also contribute, through technical, human and financial capacity, on the implementation of REDD+ schemes.

(iv) Forest communities: This sector will represent all those indigenous and non-indigenous forest communities within the country and will contribute with its forest management (cultural and traditional) knowledge. Many forest-dependent communities have their own communal organization and if, for example, some of the families are doubtful about participating, it will be the communal organization's decision about how to deal with this in relation to their liabilities in forest management and with the distribution of benefits.

(v) Community Development Councils (COCODES): This group will represent the local level and will contribute with the diffusion of information to communities.

(vi) Government: At national-local level, it will legalize processes, policies, strategies and norms with the S&EA, which will enable continuity of processes and at international level will facilitate the participation of the S&EA.

All these actors and tasks will join in what I have called the "REDD+ convergence point". This is the space where everyone can contribute about what they do (Figure 5-2).

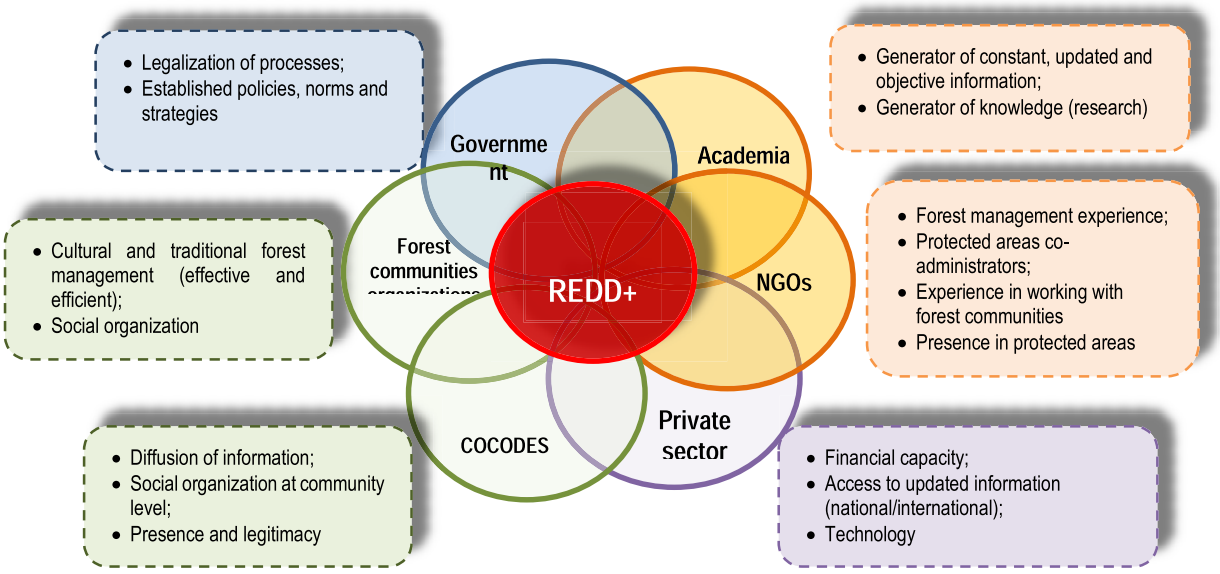

Figure 5-2 Convergence points of different actors within REDD+

It is proposed that the S&EA will have an Executive Board that comprises two representatives elected by the members of each sector. However, forest communities will have four representatives, as the main idea is to develop

a scheme that within its outcomes will benefit indigenous and non-indigenous forest communities. The term of the Executive Board will be determined by its member; however, the suggestion is to have a period of five years, as that will contribute to the continuity of the projects and processes. The main idea of this agency is that it will act as the 'backbone' of REDD+'s financial or technical processes or any other PES or PES-like project, at local and national levels, and at the international level it will be the voice of the country. A leadership rotation system for representatives should be established to improve equity and legitimacy and to distribute knowledge among other forest stakeholders[403].

The main idea behind the S&EA, is to create a multi-level governance scheme with vertical and horizontal dimensions and with interdependence between governments and non-governmental actors[404]. With that in mind, the participants of this board will be at the same hierarchical level, which means that their voice and vote will have the same power in decision making. This is the horizontal dimension of the multi-level governance. In relation to the vertical dimension, each sector will work in what they have to offer within its sector. For example, representative of forest community organization will update forest communities with the latest information about their projects, benefits, and responsibilities. At the national level, the academy will provide capacity building and will develop research on different PES and REDD+ topics and the information gathered will help in the decision making. Figure 5-3 shows these vertical and horizontal dimensions with the actors of each sector.

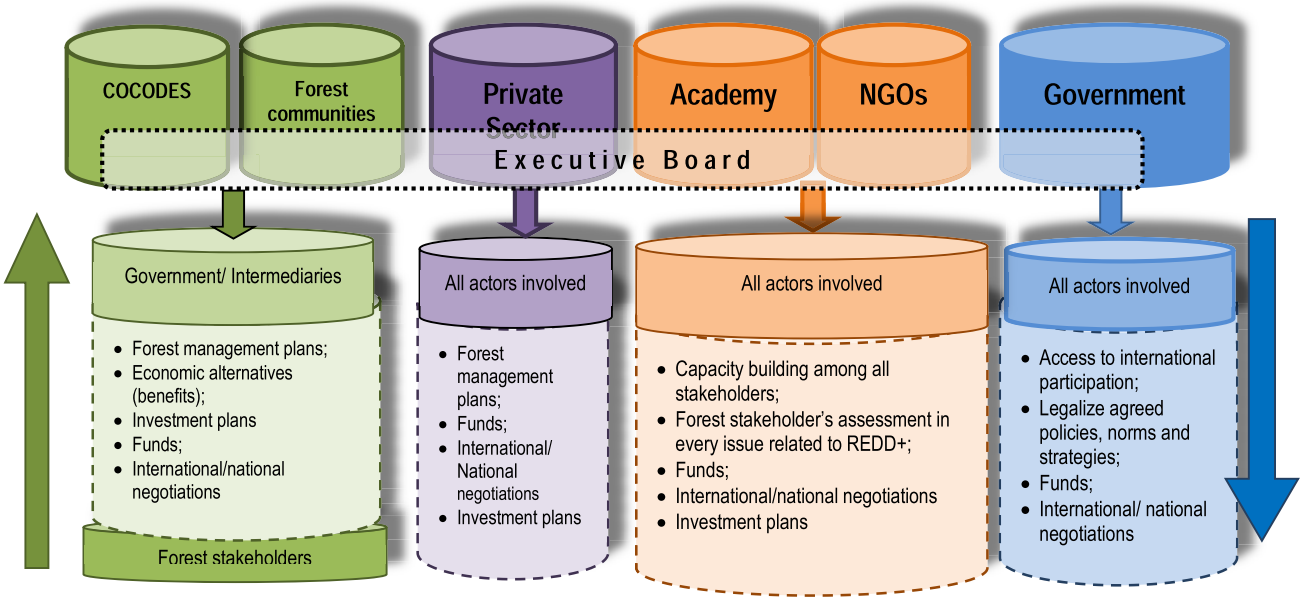

Figure 5-3 Social and Environmental Agency (S&EA)

[403] Corbera, E. (2005). Bringing development into carbon forestry markets: challenges and outcomes of small-scale carbon forestry activities in Mexico. In D. Murdiyarso & H. Herawati (Eds.), *Carbon Forestry: who will benefit?* Bogor, Indonesia: Center for International Forestry Research-CIFOR. (p.53)

[404] Bache, I., & Flinders, M. (2004). Themes and issues in multi-level governance. In I. Bache & M. Flinders (Eds.), *Multi-level governance* (pp. 1-14). Oxford: Oxford University Press (p.3)

Even though this board will act as a whole, all representatives will have their own functions related to their capacities (technical) and attributions. In the case of forest communities, they will propose the projects that the board will fund. The projects will have a bottom-up approach where the forest communities will be the ones developing their forest management plans, as in the case of Scolel Te and Fonafifo. These forest management plans will consider forest activities according to the ecological characteristics of the area. The bottom-up approach is very important for their engagement and confidence in the process.

The private sector will provide their human, technical and financial capacities to strengthen the agency and, in the same way, as forest communities, they will present their own forest management plans. The academy will be responsible of providing capacity building, training and updating information related to REDD+, and other PES schemes that could influence, in one way or other, the possible outcomes of the projects. Together with NGOs, they will provide information about their experience at the national and international levels. In the case of the government, it will provide access to international information and official participation to the UNFCCC conferences; will legalize the functions of the S&EA at national and international level and will actively collaborate with the rest of the members.

5.6.3 Role and responsibilities of the independent agency

The overall aim of S&EA is to "create a better place for forest communities and biodiversity through forest management". The mandate for this independent agency is to act as an intermediary between buyers and sellers of the ES, and to promote frameworks and actions for the delivering of social and environmental benefits through the implementation of its roles and responsibilities within REDD+ or to any other PES or PES-like scheme.

The roles that I suggest for the Social & Environmental Agency (S&EA) are:

(i) Implementation and development of the elements for designing a socially and environmentally positive REDD+;

(ii) Promotion of the necessary conditions required for a positive REDD+ scheme;

(iii) Promotion of knowledge about REDD+ or any other PES topic related;

(iv) Protection of indigenous and non-indigenous forest communities' rights in terms of active participation and decision making in REDD+ activities;

(v) Promotion of environmental conservation through a sustainable use of forest resources, considering the (+) of REDD+ scheme;

(vi) Implementation of the national REDD+ strategy at local, national and international level;

(vii) Promotion of the agency at international level for the acquisition of funds (mainly donations).

The responsibilities that S&EA will have are:

(i) Development of guidelines and national framework for the design and implementation of REDD+ scheme;

(ii) Development of conflict resolution guidelines for themselves and for any other conflict within REDD+ projects;

(iii) Management of funds which includes the development of a fair and equitable mechanism for allocation and distribution of benefits;

(iv) Ongoing capacity building at all levels (national and local)

With these roles and responsibilities, REDD+ has more probability of achieving its social benefits and environmental outcomes. This now raises the research question: *(15) Can such an agency be established in Guatemala?*

However, does the establishment of the agency will guarantee the achievement of the 'win-win-win outcomes? It is difficult to assume that this agency will be the answer to all these questions, when the achievement of outcomes is also related to the international context of REDD+. The following section will present what I see as the required readiness conditions at the international level.

5.6.4 Conditions at the international level

The conditions at the international level are those related to the development and agreement of the international REDD+ treaty. This implies that the official REDD+ framework will contribute to the development or enhancement of the conditions at local and national level.

5.5.4.1 A commensurate international agreement that facilitates the implementation of REDD+ scheme in the context of non-Annex I countries like Guatemala.

This condition refers to the final outcome of a REDD+ international agreement that Annex I and non-Annex I countries are committed to implement. The main idea behind REDD+'s proposal was that non-Annex I countries will have an opportunity to contribute to the reduction of emissions from GHG through the reduction of negative forest activities and, at the same time, achieve a 'win-win' outcome. This idea was initially proposed to support forest management activities that non-Annex I countries have been doing for decades, such as forest conservation, forest management, and that where not considered under the Kyoto Protocol mechanisms; and because these mechanisms disadvantage non-Annex I countries due to the highly expensive costs for registering and validating forest carbon projects[405]. REDD+ was supposed to ease the forest carbon credits processes for non-Annex I countries and to activate the international forest carbon market with the compliance of commitments of reduction of GHG of Annex I countries. However, none of these actions have occurred until now, as registering forest carbon credits is still very expensive and the international regulated forest carbon market has not been activated as REDD+ is still under negotiation.

However, until now REDD+s framework is surrounded by uncertainty and its implementation in several non-Annex I countries is just starting. A commensurate international agreement should be:

[405] Hall, A. (2012). *Forests and climate change. The Social dimensions of REDD in Latin America*. Cheltenham, UK: Edward Elgar. (p.31)

(i) An approved international legally-binding REDD+ agreement, in order to activate the regulated forest carbon market. By this, I mean that a post-Kyoto Protocol is approved and Annex I countries will commit to complying with their reductions of GHG. The chapter of the development of REDD+ emphasized the failed efforts to negotiate a new climate instrument within UNFCCC and the negotiations in 2011 (COP 17 in Durban, South Africa) did not generate any sort of binding agreement to further emission reductions until 2020[406]. In COP18 in Dakar (2012), it was mentioned how final decisions of the REDD+ draft eases the requirements from collecting data and measuring impacts of REDD+ to just reporting about them[407] (FCCC/SBSRA/2011/L.25/Add.1). Until now, REDD+ is still under negotiations and even though many non-Annex I countries have started implementing REDD+ pilot projects, REDD+ framework has not been agreed to, and the regulated market has not been activated. However, in order to effectively reduce the effects of climate change, it is important that a legally-binding REDD+ agreement is approved.

(ii) An approved international legally-binding REDD+ agreement that contemplates and applies two global principles: First, the *Polluters pay principle* states that whoever is responsible for damage to the environment should bear the costs associated with it; and secondly, t*he principle of common but differentiated responsibilities* recognizes historical differences in the contributions of Annex I and non-Annex I countries to global environmental problems and differences in their respective economic and technical capacities to address these problems[408]. In other words, this agreement needs to be effective in both sides of the equation, for buyers and sellers of the ES. It should work towards the reduction of emissions from deforestation and forest degradation while, at the same time, work towards the reduction of emissions from diverse activities within Annex I countries. This international agreement could be seen as a 'gradual reduction offset mechanism'.

(iii) A financial resource where Annex I countries initiate a regulated forest carbon market by buying forest carbon credits from REDD+ projects in non-Annex I countries. This carbon market with an adequate carbon price will provide of the necessary financial resources for the implementation of forest carbon projects.

(iv) Easy to be implemented according to the conditions of non-Annex I countries. According to the literature, REDD+ was proposed as a mechanism where non-Annex I countries could also integrate their forest activities, such as reforestation, forest conservation and management, under the Kyoto Protocol commitments; however, the technical requirements for registering and validating forest carbon projects

[406] http://unfccc.int/files/meetings/durban_nov_2011/decisions/application/pdf/cop17_durbanplatform.pdf Accessed 12.08.2013
[407] http://blog.cifor.org/5655/redd-draft-texts-postpone-financing-decision-to-2012-water-down-safeguards/ Accessed 12.08.2013
[408] CISDL. (2002). *The Principle of Common but Differentiated Responsibilities: origins and scope*. Paper presented at the World Summit on Sustainable Development, Johannesburg.

have been a disadvantage for non-Annex I countries. This agreement should have accessible financial and technical requirements for non-Annex I countries to implement in REDD+ pilot projects.

This essential condition for an international agreement implies that it promotes the establishment of the conditions at the local and national levels according to the context of each country. This could be done by the following actions:

(i) Accept proposals and mechanisms of how non-Annex I countries will strengthen their weaknesses and support new and innovative governance structures as their way to improve these weaknesses, for example, from a bottom-up approach.

(ii) Monitoring the implementation of actions at local and national levels by FPIC processes, equitable and fair distribution of benefits and respect of property rights of non-Annex I countries in order to enhance its actions.

(iii) Monitoring so that Annex I countries commit to their reduction of emissions of GHG; and, at the same time, monitor the implementation of the '*polluters pay principle*' and the principle of common but differentiated responsibilities. In other words, REDD+ needs to highlight that the actual climate change is due to the emissions of GHG that the world has faced for decades; and that countries (Annex I) need to be responsible for what they have emitted.

This condition raises the research question: *(16) How likely or feasible is the development of an international agreement (REDD+ scheme) with these characteristics? (17) What is needed to put in force this condition for the implementation of a socially and environmentally positive REDD+ scheme?*

5.7 Identification of research questions

The remainder of this thesis will take this research framework and agency proposal, and examine them within the context of Guatemala. Thus far, Chapters 2, 3, and 4 have relied on a literature review of online reports, investigations and the final decisions of the different Conference of the Parties (COP) of the UNFCCC. Information was also obtained and analysed from participation in different webinars (REDD+ Learning Sessions) organized by the World Wildlife Fund (WWF) Forest and Climate Programme[409].

Chapter 4 relied on a desktop analysis of the documentation about different REDD+ pilot projects and other PES schemes in order to understand how countries are implementing their projects. Building on Chapters 2, 3, and 4, I developed 19 research questions to guide my research in Guatemala. To summarise, the questions derived from the framework are:

In relation to the 'ideal elements' for the design and implementation of REDD+ scheme

[409] http://www.youtube.com/watch?v=7D4-fthk7nw&list=PLmxWE-rrOcWDR2D_Rhhah8VMh7Ri-w6nJ. Accessed in May and June 2013.

(1) *What are the shortcomings of the design of the REDD+ scheme that Guatemala already has adopted?*

(2) *How much agreement is there among REDD+ stakeholders on the desirability of the design of a scheme as outlined before?*

(3) *Is it possible to create or develop such a scheme considering these elements of design?*

In relation to the readiness conditions at different levels we have:

Readiness at the local level

(4) *To what extent indigenous and non-indigenous forest communities are willing to participate in REDD+ scheme?*

(5) *What do forest communities know about REDD+ and how the adoption of REDD+ scheme may affect their relation to the environment and to the ecosystem? and*

(6) *How REDD+ will/may impact on the ground?*

(7) *Whether the communities involved do or can agree on the type of social benefits they may want to receive?*

(8) *How much capacity do the affected communities have? And if inadequate,*

(9) *How can forest communities' capacity be strengthened and by whom?*

Readiness at the national level

(10) *How much political support is in Guatemala? And if inadequate, how can this be strengthened in order to implement an effective REDD+ scheme?*

(11) *At national level, what institutional capacity exists in Guatemala to implement REDD+ effectively? And if inadequate, how can it be strengthened?*

(12) *Is there a process for the inclusive participation of all forest stakeholders? If not, can it be established?*

(13) *Does Guatemala have suitable environmental characteristics to implement REDD+?*

(14) *Is it possible that creating a special purpose REDD+ agency will make a difference of improving the conditions of Guatemala?*

Independent national agency

(15) *Can such an agency be established in Guatemala?*

Readiness at the international level

(16) *How likely or feasible is the development of an international agreement (REDD+ scheme) with these characteristics?*

(17) *What is needed to put in force the condition for the implementation of a socially and environmentally positive REDD+ scheme?*

From these research questions, the remainder of the thesis will be developed.

5.8 Conclusions

The theory and lessons learnt from experiences in other countries provide a good basis for identifying what was needed in order to have positive social and environmental outcomes from REDD+ projects. Some of these inputs were related to the process of design. In that regard, I considered that REDD+'s design needed five elements that could contribute to the achievement of the expected outcomes. The first element was related to an open participation (inclusive, full and efficient participation) and decision making. Participation was important because it gave the opportunity for indigenous and non-indigenous forest communities to have a voice in a decision making capacity. This participation will allow them to agree or not with the benefits that will come from REDD+ projects. Forest communities must express what their needs were and what they expected as outcomes from the project.

The second element was the protection of forest communities' rights as it involved the security that these communities will not be expropriated of the land that has been their home for decades, and the rights of the benefits that these forests could bring them like carbon. This right will give them the security they needed and the confidence towards the project. The third element was a mechanism for a fair and equitable distribution of social benefits. The idea of this mechanism was to allocate and distribute the benefits in a way so that no communal power structure could interfere. The final element was transparency and accountability of provisions. This last element was crucial for the formation of confidence between actors involved.

Even though these elements were necessary, they would not be sufficient for delivering 'win-win-win' REDD+ outcomes. In that regard, I identified a set of conditions that were essential for the achievement of the expected outcomes. At the local level, the conditions were focused on socio-cultural aspects like the understanding and willingness of forest communities to participate, agreement on the forms of allocation and distribution of benefits derived from the scheme and forest communities' capacity to implement REDD+ actions.

At the national level the conditions that I considered as important to have or develop were related to the political support to design and implement REDD+ scheme and the institutional capacity that was needed. These conditions will provide a solid foundation for the necessary actions. Another important condition was the biophysical feasibility of the country, as it was important to find out how feasible reforestation projects (considering the (+) of REDD+ scheme) were in particular areas of the country. These conditions helped me to raise research questions to assess to what extent these conditions existed in Guatemala.

At the international level the necessary conditions were the development of a commensurate international agreement that facilitated the implementation of REDD+ scheme in the context of non-Annex I countries like Guatemala. This type of agreement will facilitate the implementation of the scheme according to each country's capacities (human and financial). The condition at this level was the consensus on an agreement that supports or promotes the establishment of national and local conditions. With an international agreement that enhances the

implementation of national and local conditions, it was more feasible that REDD+ will produce socially and environmentally positive outcomes.

The case studies have shown that some of these conditions existed in some countries; however, to find a country with all these conditions was uncommon. Having this in mind, I proposed the development of an independent agency, S&ES, which will act as the intermediary between buyers and sellers, and with local, national and international participation. The idea with this independent body was to build an agency where every actor contributed with what they have to offer, such as, technology, finance, forest management knowledge, and research.

This agency was needed because, until now, several projects in non-Annex I countries like Guatemala have had difficulties in the continuity of projects, delays in management and implementation of the project because of bureaucratic procedures within governments. Moreover, there was uncertainty about the distribution of benefits, participation processes and property right's issues about REDD+ pilot projects in Guatemala. For that reason I believe that this agency will bring new opportunities that will enhance forestry and forest communities as it will have an open participation with indigenous and non-indigenous forest communities that will engage not just in the process but also the agency as well. But what are the chances of establishing such an agency in Guatemala? What is its viability?

Chapter 6

FINDINGS (1): REDD+ PILOT PROJECTS IN GUATEMALA

6.1 Introduction

This chapter will analyse how REDD+ pilot projects in Guatemala have developed over time, and how effective they have been in achieving social and environmental outcomes so far. It will examine four pilot projects that have been implemented in Guatemala and will analyse the local conditions of these projects. The information provided through interviews is used in this chapter following the categories described in Section 5.6 and Table 5.1.

Chapter 6 finds that REDD+ projects in Guatemala varied considerably. Two of the four REDD+ pilot projects analysed have been implemented by forest communities with the technical assistance of international NGOs (INGOs). In these two projects, the forest communities were highly involved in the process of design and in the implementation of the project, which suggests that the projects were more likely to achieve positive outcomes. In contrast, the LFFL project has been implemented by the NGO that has been co-administering the protected area for more than 25 years but has decided not to inform the forest communities about the possible REDD+ benefits because of uncertainties about the scheme. The last project, FUNDAECO, has signed an agreement of confidentiality, in which no information about the project could be shared. These last two projects have not involved forest communities in any REDD+ processes, which could negatively affect the implementation of the schemes.

It also finds that the country of Guatemala has characteristics that, in some cases, could benefit from implementation of the scheme while, in others, it could jeopardize them. These characteristics are related to the diverse cultures in the country, the forest communities' connections and management of forest resources, their level of organization as communities, their level of education and others. In addition, it finds that the major constraints in all four projects were: (1) the indecisiveness of the government relating to carbon credit rights, as these projects were being implemented inside protected areas; and (2) constant political changes which weakened processes.

This chapter is organized as follows: Section 2 will briefly describe the history of PES schemes in Guatemala. Section 3 evaluates the processes in the discussions and development of REDD+ schemes in Guatemala. It analyses the general processes that the country has developed for the implementation of the scheme, the actors who have been involved until today and the steps taken, so far, in the construction of REDD+ schemes and also the steps that Guatemala has taken in the voluntary market. Section 4 analyses the different REDD+ pilot projects in Guatemala. Section 5 analyses the process of the design of the REDD+ pilot projects based on the design criteria specified in Chapter 5, and also examines the local conditions present in each project. The final section, Section 6 concludes the chapter.

6.2 History of PES schemes in Guatemala

It can be said that Guatemala has been a pioneer in the field of PES for carbon storage in Latin America, as its first project was conducted in 1989, when CARE implemented an agroforestry project with local communities in Guatemala. The innovative project, called Mi Bosque (My Forest), attracted the attention of the company, Applied Energy Services (AES), who agreed to finance it. That same year it signed a Memorandum of Agreement with CARE and AES for a period of ten years (2000-2009) where it was estimated the fixation and storage would involve 5.2 million tons of carbon[410] for a total price of USD $2 million[411]. The project has achieved many positive outcomes as a result of the communities' commitment to learn and implement new skills[412]. Since then, the idea of selling this kind of ES has come to the attention of many forest managers.

Other PES projects have also been implemented in Guatemala, for example, the Tacaná River Basin, a watershed PES project with the objective to regulate the water system through a bottom-up integrated governance programme of water resources management to optimize the benefits provided by freshwater, soils and ecosystems associated with populations in the project's area of influence[413]. This project has been managed by the Water and Nature Initiative (WANI) of IUCN and indigenous communities in the region. The PES project has provided environmental and social benefits such as strengthening local governance and improving organizational structures[414]. Other projects were the Water Fund of the Sierra de las Minas Biosphere Reserve (SMBR), managed by FDN and the World Wide Fund (WWF).

However, it was not until 2005 when the theme about carbon storage began to emerge with greater impetus at the Conference of the Parties (COP) in the UNFCCC in Montreal, when Guatemala and other countries learned about the proposal for a new mechanism to reduce the emissions of GHG from deforestation and forest degradation. Since then, the concept and context of REDD+ has been evolving and, in many cases, promoting high expectations that this mechanism will help reduce deforestation and, at the same time, generate economic, social and environmental benefits ('win-win approach'). So Guatemala, as in many other non-Annex I countries, is already implementing, or trying to implement, REDD+ pilot projects at the local level without the certainty that this scheme will produce positive, social and environmental outcomes. The following section will analyse this global PES scheme.

[410] Castellanos, E., Quilo, A., Montenegro, R., & Quemé, S. (2009). *Estimación del contenido de carbono en bosques del Altiplano occidental de Guatemala*. Guatemala: UVG-CARE.

[411] http://www.usac.edu.gt/archivos/econtElcambioclimaticoeimpactosenGuatemalaColIngenieros[Mododecompatibilidad].pdf

[412] CARE. (2007). CARE in Guatemala: Reversing land degradation and building carbon stocks. Guatemala: CARE Guatemala.

[413] http://www.iucn.org/about/work/programmes/water/wp_where_we_work/wp_our_work_projects/wp_our_work_trb/ Accessed 22.02.2014

[414] IUCN. (2011). Tacaná Watersheds Guatemala and Mexico. Transboundary water governance and implementation of IWRM through local community action. Guatemala: IUCN. (p.12)

6.3 Process of discussion and development of REDD+ schemes in Guatemala

REDD+ actions in Guatemala started after the scheme was launched internationally in Montreal (2005). Among the actions that have been considered during the international negotiations about REDD+ is the importance of the inclusion and active participation of forest stakeholders. In this regard, MARN, as the focal point or official manager of the UNFCCC and, thus, the REDD+ mechanism, has led activities like regional workshops, with different sectors and, at different levels, that are framed within the actions of readiness suggested by FCPF. Guatemala is implementing these activities in order to apply for funding for the development of other activities like the preparation and structuring of a national strategy for REDD+

At the same time that MARN got involved in REDD+ activities, different co-administrators (NGOs) of protected areas initiated discussions about the likelihood of applying for funds that could contribute to the efforts these organizations had already been promoting for the conservation and management of these areas, their forests and their forest-dependent communities. Most of these discussions were made independently from the government (MARN) based on past experience with bureaucracy [D]. Many other groups like the private sector, forest communities, forest organizations and private land owners also initiated actions for the implementation of REDD+ pilot projects on their own land.

The following section will emphasize the different groups and actors involved in REDD+ processes.

6.3.1 Actors who have been involved in REDD+ processes in Guatemala

At the national level, different actors with different agenda have been emerging. In some cases, REDD+ schemes and other initiatives are integrated in a broader context, such as climate change [E, A]. Some of these groups are linked to policy processes like the recently approved Climate Change Law (Law Decree 7-2013), while others are involved in financing or in implementation processes. However, the abundance of groups discussing similar issues has created considerable confusion, generating uncertainty about the actual knowledge of REDD+ and its implementation processes [D]. The key groups related to forests, climate change and REDD+ are[415]:

- **Forests, Biodiversity and Climate Change Group (GBCCyB):** This group was created on the initiative of the Ministry of Environment and Natural Resources (MARN) in 2001 with the aim to exchange ideas and information, and to approve proposal projects related to the management of forests and climate change. From 2009, its objective was reformulated as a discussion forum that formulates and validates proposals for the preparation of REDD+ schemes and to follow up international negotiations related to forests and climate change.
- **Inter-institutional Commission on Climate Change** (CICCC)**:** This was a temporary group that emerged during the political administration of 2007-2011; it called all ministries, secretariats and guest institutions

[415] Davis, A. (2010). *Reducción de Emisiones por Deforestación y Degradación de Guatemala: Iniciativas, territorios y actores de un proceso en marcha*. Programa Salvadoreño de Investigación sobre Desarrollo y Medio Ambiente-PRISMA. El Salvador.

to work on the theme of climate change. The initiative was an important step towards the adaptation and mitigation of climate change, however, during the change-over of administration in early 2012, the ICCC ceased to operate[416].

- **National Roundtable on Climate Change:** This was created in April 2009 as a way to reach agreement on the Climate Change Policy developed by the MARN[417]. Today, there are more than 35 NGOs, government and private sector group representatives, members of the board of the National Roundtable. It is a voluntary group without legal status that is actively working to influence in policy proposals and in for the implementation of the Climate Change Law.
- **National Committee of Environmental Safeguards (CNSA):** In 2013, the safeguards committee was presented to MARN to be officially formalized. This committee has been coordinating the development of a national safeguard system for the REDD+ strategy.
- **National Alliance of Forest Organizations:** The alliance brings together the 11 forest community organizations in the country to fight for the rights of local communities in several climate change projects.
- **Others:** For example, the Climate Change Indigenous Table of Guatemala (MICCG), the Indigenous Organizations and Authority Network (RAOI) and the National Alliance of Rural Forest Organizations of Guatemala (Alliance OFC).

The previous political administration (2007-2011) was very active and MARN conducted several workshops at the national and international level that focused on creating knowledge for the development of the REDD+ strategy in Guatemala, responsibilities and benefits, consultation processes and the need for technical and financial support to develop the strategy[418]. However, in 2012, the new political administration stopped REDD+ national processes for almost two years. This political uncertainty made many individual projects emerge and start actions towards the implementation of REDD+ pilot projects. Even though it has been an opportunity to generate knowledge about REDD+, there is uncertainty about how the mechanism is going to work at the local and national levels because of the constant political changes that come from with different ideologies, staff rotation and actions towards REDD+ processes [B,D,F].

In addition to the above, there is another working group called the Implementers Group of REDD+ schemes. This group is an integration of national and international NGOs[419], and forest community associations working with REDD+ pilot projects. The group's objective is to create opportunities for dialogue, discussion and advocacy among project implementers and REDD+ demonstration activities, including proposals, methods and actions to reduce

[416] FCMC & USAID. (2013). Institutional Assessment and sector analysis for the low-emissions development strategy in Guatemala. Washington, DC: Forest Carbon, Markets and Communities (FCMC) Program, US Agency for International Development (USAID). (p. 7)

[417] http://mncc-guatemala.blogspot.co.nz/p/instituciones-que-conforman-la-mncc.html

[418] MARN. (2009). *Informe ambiental del Estado de Guatemala. (Environmental Report of the State of Guatemala) GEO Guatemala 2009*. Guatemala: MARN, IARNA/URL, PNUMA.

[419] National NGOs integrating the Implementers group of REDD+ pilot projects: Defenders of Nature (FDN), Guatemalan, Association of Exporters (AGEXPORT), Association of Community Forestry (UTZ'Che'), Fundalachúa, and Association of Forest Concessions in Peten (ACOFOP). International NGOs: RA, IUCN

deforestation and degradation through direct experience on the field, with feedback processes to national and international policy through active participation of its members [D,B].

The working components of Implementers Group of REDD+ scheme are:

- ***Political-legal issues:*** Discussion of ideas, the creation of proposals related to reinforcing institutional capacities and the development of government platforms related to the subject. Among the topics discussed are: (i) climate change law (implementation), (ii) following up R-PP; (iii) property and rights of carbon credits; (iv) roles of actors; and (v) free, prior and informed consent processes, among other topics.

- ***Technical issues:*** This component includes more technical and operational issues such as: (i) methods applied to REDD+ pilot projects; and (ii) approaches and progress of PDD, among other subjects.

- ***Financial aspects:*** Discussion of issues related to pre-investment costs, operation, transactions, validation, among other REDD+ projects. The main topics are: (i) funding of projects; (ii) costs of local REDD+ strategies; (iii) transaction costs; and (iv) market expectations.

- ***Social Issues:*** Discussions of the actions to be implemented to control the environmental, social and economic impacts of REDD+ projects. Among the topics are: (i) impacts on food security; (ii) land tenure and land rights; (iii) worldview of the people; and (iii) impacts on forest dependents communities' livelihoods.

The pilot projects included within the Group of Implementers are:

(i) Eco-Región Lachúa Project promoted by Fundalachúa

(ii) Lacandon: Forests for life promoted by Defenders of Nature Foundation

(iii) Project of conservation and sustainable management of Community Forests in Sierra Madre, promoted by Utz'Che' Association (not included in this research).

6.3.2 Steps taken so far for the construction of the REDD+ scheme in Guatemala

Guatemala has taken important steps towards the construction of a national REDD+ framework. Some of these steps are related to the processes of applying for funds with different international organizations, such as the FCPF, UNREDD Programme. It is worth noting that these processes were developed during the last political administration (2007-2011) who had more knowledge about REDD+ [A,B,D]. The processes from 2012 until today, (2014), have been very slow[420], bureaucratic and have suffered from staff rotations [D]. The processes that Guatemala has already undertaken:

[420] According to conversations with some REDD+ actors late in 2013

(1) ***Readiness Plan Idea Note (R-PIN):*** The R-Pin was elaborated in 2008 by a series of meetings between government institutions, environmental NGOs (national and international), the academy and private sector. This document described the social, political and economic context about forest resources and analysed policy instruments that have been implemented to reduce deforestation nationwide. The R-Pin was approved in 2009 by the FCPF and, once accepted and approved, the country would have received a contribution of USD $200,000.00 for the preparation of R-PP [C]. However, in the case of Guatemala this financial support was not received and the preparation of the R-PP was undertaken using government funds [C].

(2) ***Preparation proposal for REDD (R-PP):*** This describes the national context (political, social and economic) and the actions made to reduce emissions from deforestation and forest degradation. The completion of the R-PP was a hard work for both government institutions, as well as for the participating organizations [B,C,D,E]. Since 2010, many workshops, discussions, review groups and committees have been formed to analyse and discuss specific issues, which concluded in the development of the National Strategy for the Reduction of Deforestation (ENRD) with a specific coordination structure (Figure 6.2). These efforts have been led by the Unit of Climate Change of MARN and with the support of other institutions like the National Forest Programme of Guatemala (PFN-G), the International Union for the Conservation of Nature (IUCN) and the Rainforest Alliance (RA). After two refusals from FCPF, in 2011 and March 2012, the third proposal was approved. Since then, the country has initiated administrative actions for the disbursement of USD$3.8 million, which covers the third part of the general proposal. Staff from MARN have expressed the need to search for more funds to finish the process for the development of the ENRD [C].

(3) ***National Strategy for the Reduction of Deforestation:*** As it is explained in the R-PP, this strategy does not emphasize REDD+ activities, but other activities (adaptation and mitigation activities) that can contribute to the reduction of deforestation and forest degradation.

For the development of the ENRD, Guatemala has proposed the following three levels of coordination:

(i) ***Government level*:**

This level Includes the Socio-Environmental Office and the ICCC and participation in this level is restricted to the President or Vice President and the Ministers integrating these two commissions, which includes MARN, the Ministry of Agriculture, Livestock and Food (MAGA), the National Institute of Forests (INAB) and the National Council for Protected Areas (CONAP). The participation of high level authorities in this structure is a determining factor for the success or failure of the implementation of the scheme. However, it is most likely, based on past experience, that in the next political change, in 2016, this structure could be altered, if not annulled.

(ii) ***Technical coordination level:***

This level is integrated by the technical staff of the ICG which, at the same time, is the technical secretariat of the process, linking to the national body for consultation and participation and to the government level. The technical assistance is provided by: RA, IUCN and FAO/FNP-G.

(iii) ***Consulting level:***

This is integrated by the GBCCyB but also by other relevant groups that have a special interest in the process, such as: the private sector, rural communities, COCODES, academics and civil society.

The participation of a facilitator group serves as an intermediary between all levels of coordination. This group is integrated by RA, IUCN and FAO/FNP-G.

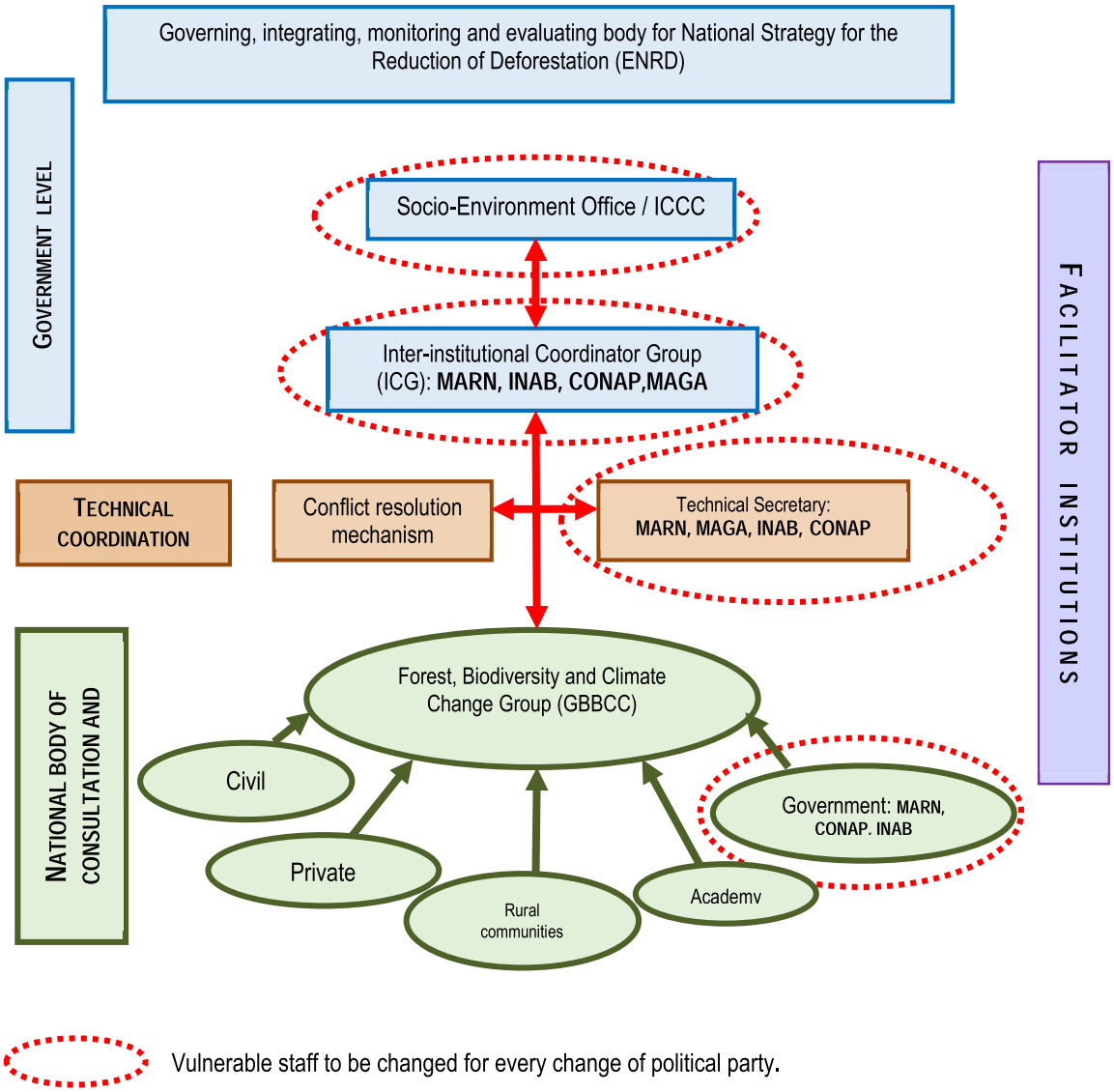

Figure 6-1 Coordination structure of the national strategy for the reduction of deforestation (ENRD)

Source: Guatemala R-PP (2011)

However, as explained previously, Guatemala, as in any other non-Annex I country, needs stability in this process and having delegates of the government at decision making levels (technical secretariat and political level), does not contribute to the permanence needed for an effective implementation of REDD.

As can be seen, Guatemala has been moving forward in the implementation of REDD+ scheme, however, the speed of this implementation depends on the support and understanding of the political administration in charge. This uncertainty in the continuity or delay of processes, negatively affects the achievement of the social and environmental outcomes of the scheme. In order to overcome this political weaknesses, some projects from the private sector (with different interests) have emerged and initiated forest carbon projects away from REDD+ actions

[D,F]. However, this also does not contribute to effective implementation, as each group wants to pull or push towards its own interests. The following section will analyse one of these projects.

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6.3.3 Guatemala and the voluntary market

Few forest carbon projects in Guatemala have turned their efforts towards the voluntary market. This is mainly due to the lack of accurate information about the context of REDD+ framework, lack of experience in carbon markets and because international REDD+ negotiations are still causing uncertainty for potential project proponents. However, one private initiative in Guatemala has been successful in the implementation of a forest carbon project in the voluntary market at the international level.

In March 2010, the Grupo Agroindustrial Occidente (GAO) announced the first sale of carbon credits from a agroforestry project, "Promoting Sustainable Development through natural rubber tree plantations of Guatemala", during the World Fair and Conference "Carbon-Expo", held in Cologne, Germany. This sale was made through the signing of the Purchase Agreement of Verified Emissions Reduction (VERPA) between a Swiss-owned company called "First Climate" and the company "PICA de Hule Natural, S.A, which is a Guatemalan company that is part of GAO[421].

This project consists of the establishment of 2,500 new hectares of rubber plantations through sustainable internationally recognized practices. These new plantings contribute to mitigate climate change with binding generating fixations of approximately 1.2 million tonsCO_2e, for a period of 20 years. The estimated time for the completion of the processes involving a carbon project such as PICA, was about two years, during which there were significant technical and economic investment.

In addition, GAO is working on a voluntary stock exchange transaction platform for the private sector. The purpose of this is to cultivate future customers on a platform that makes mandatory transactions, which also will help to create a culture based on voluntary transactions and corporate social responsibility. This stock exchange has a group of technical experts responsible for establishing criteria under the principles of a voluntary market system in the context of Guatemala. It is expected to officially release this "voluntary stock exchange" to the public in mid-June, 2013.

As the project involves rubber plantations, there are no forest-dependent communities living inside the area. However, the project has been providing social benefits through job opportunities for communities nearby and has also improved the ecosystem (environmental benefits) as before it was used for livestock activities.

[421] https://www.occidente.com.gt/gfo/Art%C3%ADculos/PrimeraVentaMundialdeCr%C3%A9ditosdeCarbono/tabid/176/Default.aspx

In relation to REDD+, GAO is interested in being a provider of professional services for the development, validation and subsequent registration of projects in the near future [F]. This interest arises because the PDDs of the current pilot projects are being developed by international consultants who do not know the real context of Guatemala and they also charge for these professional services, generating a high-cost debt in communities that have to pay for such services [F].

6.4 Analysis of REDD+ initiatives in Guatemala

This section will critically analyse REDD+ pilot projects in Guatemala and will examine if the elements of the 'ideal' design and implementation of a positive socially and environmentally REDD+ scheme are present or not. At the same time, this section will consider the local conditions of each initiative. This assessment will be just about the projects and its forest-dependent communities. The information about each project was obtained through publications, reports and semi-structured interviews with project developers and other actors involved, such as NGOs (national and international), academia, government, forest communities and in some cases with the private sector.

Table 6-1 shows the REDD+ pilot projects that have been developed in Guatemala. However, before analysing each initiative it was important to scrutinize how these projects comply with Wunder's criteria of PES schemes: voluntary scheme with a well-defined ES, with minimum one buyer and minimum one seller and with conditional payments.

Table 6-1 Evaluation of REDD+ pilot projects in Guatemala

	PES criterion / Case studies	Voluntary	Well-defined ES	Minimum one buyer	Minimum one seller	Conditional payment	Type of scheme
1	**GuateCarbon**	Yes	Yes	Yes	Yes	Yes	***PES scheme REDD+***
2	**Fundalachúa**	Yes	Yes	Yes	Yes	Yes	***PES scheme REDD+***
3	**Lacandon: Forests for Life (LFFL)**	No	Yes	Yes	Yes	Yes	***PES-like scheme REDD+***
4	***FUNDAECO***	Unknown	Yes	Yes	Yes	Yes	***PES scheme REDD+***

As can be seen, all projects with the exception of LFFL, comply with Wunder's definition and are considered to be PES schemes (LFFL is a PES-Like scheme). During the time of the research, in 2011, all these projects were applying for funds as PES REDD+ pilot projects.

Table 6-2 describes each REDD+ initiative according to the proposed elements for design and conditions at the local level. The analysis will be made in relation to the presence or absence of each element and conditions.

Table 6-2 Elements of design of REDD+ pilot projects and local conditions in Guatemala				
Elements	**GuateCarbon project**	**Fundalachúa project**	**Lacandon: Forests for Life**	**FUNDAECO**
1. Inclusive, full and efficient participation and decision making arrangements	present	present	absent	absent
2. Protection of rights (land use, land property and carbon)	present	present	present	present & unknown
3. Mechanism for a fair and equitable distribution of benefits	present	absent	absent	unknown
4. Provisions ensuring transparency and accountability	present	absent	present	absent
Local conditions of REDD+ pilot projects				
Conditions	**GuateCarbon project**	**Fundalachúa project**	**Lacandon: Forests for Life**	**FUNDAECO**
1. Understanding and willingness of forest communities to participate in REDD+ pilot projects	present	present	absent	unknown
2. Social benefits of REDD+ agreed by forest-dependent communities.	present	present	absent	unknown
3. Capacity of forest communities to implement the scheme	present	present	present	present

As can be seen, every initiative has used a different approach for its REDD+ scheme. The following sections will analyse the presence or absence of the elements of design and conditions for each initiative. This information will help to answer the research questions developed in the framework chapter and that will be addressed later in the chapter.

It is worth mentioning that most of the information in this chapter was obtained during the field trip made to Guatemala in December 2011. By the end of this research (2014) most of the information, especially with the REDD+ pilot projects might have changed.

6.4.1 Guatecarbon

GuateCarbon[422] was born in 2006 as a REDD+ pilot project in the Maya Biosphere Reserve (MBR) with the aim of mitigating CO_2 emissions by avoiding deforestation. It was expected to be a source of income (social benefits) for communities that contributed to the conservation of the area [B]. GuateCarbon is an initiative of the Association of Forest Communities of Petén (Asociación de Comunidades Forestales of Petén-ACOFOP) and the Rainforest Alliance in conjunction with the World Conservation Society (WCS), CONAP, MARN and private companies, Gibor and Baren, who handle concessions in the Multiple Use Zone (MUZ) of the MBR[423] and is one of very few projects in the world that is built on community-based production forestry and enterprise[424]. The GuateCarbon project integrates the forest concessions certified under the Forest Stewardship Council (FSC) in the northern region of

[422] RA. (2009). *Reducing Emissions through avoided deforestation in the Maya Biosphere Reserve*. Guatemala: Rainforest Alliance.
[423] Hodgdon, B., Hayward, J., & Samayoa, O. (2012). The GuateCarbon initiative and REDD+ readiness in Guatemala. *ETFRN News, 53*(4), 158-166. (p.159)
[424] ibid. (p.159)

Guatemala, Petén. According to research, deforestation rates in certified forests concessions are twenty times lower than in the adjacent protected areas[425].

One main characteristic of this project is that it has been developed by forest concessionaries communities who have been managing the forest for almost three decades. This particular group, ACOFOP, has received many national and international awards for their excellence in forest management and community organization [C, B]. Some of the awards are: (i) Equatorial Initiative Award given by the United Nations Development Programme (UNDP) in 2002; (ii) The Environmental Torch (2003) given by IUCN for its Latin-American leadership in forest management; and (iii) The Guatemalan Presidential Environmental Award (2003)[426], to mention but a few. Because of their experience in forest management and forest community organization, ACOFOP has been developing actions to apply for REDD+ funds in order to implement GuateCarbon as a pilot project. But the process has not been easy, as REDD+ has become highly technical, costly, and politically influenced [B].

GuateCarbon has been estimated that it will store 0.8 million tCO_2-e per year from avoiding deforestation with payments in the order of US$1-1.5 million per year to complement forest enterprise activities in the MRB[427]. The social benefits from this payment will go to more than 5,000 families in the certified concessions through increased dividend payments, improved business competitiveness and better conservation of forest resources. It has also been estimated that about 1,000 forest dependent families will benefit through the creation of new job opportunities (monitoring, control and administrative functions related to project management)[428].

According to the elements of design for the GuateCarbon initiative, the first element is present as the design has been developed by ACOFOP which has a formalized process of participation, consultation and decision making procedures [D, E]. This process of participation has been assisted by the Rainforest Alliance and also by CONAP, which have been building capacity and enhancing communities' knowledge about REDD+ [C E], its negotiations at international level [D, E], its final and agreed decisions, and how to apply for funds for the implementation of pilot projects [E]. This has enhanced ACOFOP's capacity to make decisions regarding their forests and also to learn how to deal with national and international negotiations [B, C, E].

Regarding the protection of rights, ACOFOP has a contract of 25 years[429] (1995-2020) with the government in which rights of use have been transferred to this forest organization. This contract ensures that forest-dependent communities living inside this area will be allowed to use forest resources, which will contribute to their livelihoods. Considering this contract, ACOFOP started actions for the establishment of GuateCarbon as a REDD+ pilot project. However, the distribution of benefits from carbon rights has not been agreed to between the parties [C, E]. The

[425] Hughell, D., & Butterfield, R. (2008). Impact of FSC Certification on Deforestation and the Incidence of Wildfires in the Maya Biosphere Reserve. Guatemala: Rainforest Alliance.
[426] http://www.acofop.org/index.php/quienes-somos/logros-y-reconocimientos. Accessed in 22.02.2014
[427] Hodgdon, B., Hayward, J., & Samayoa, O. (2012). The GuateCarbon initiative and REDD+ readiness in Guatemala. *ETFRN News, 53*(4), 158-166. (p.162)
[428] ibid.(p.163)
[429] http://www.acofop.org. Accessed on 23.05.2014

government has disagreed to the full transfer of carbon rights to ACOFOP, as the protected areas are owned by the State, therefore, the distribution of its benefits should be equitable for everybody [B, D]. Even with this disagreement, ACOFOP has been working towards the implementation of the project and has been seeking for international investors who want to offset their carbon footprint [E] with their project.

Concerning the element of a mechanism for the fair and equitable distribution of benefits, ACOFOP has been effectively distributing benefits from their sustainable logging activities [B]. This means that the organization has already established a mechanism for the fair and equitable distribution of benefits from different activities. In the case of carbon rights and, as explained before, ACOFOP has been facing disagreements with the government of whom should be in charge of managing the economic benefits of this ES and how much each stakeholder should receive. Once this argument is solved and the carbon credits are traded at the international level, ACOFOP will use the same mechanism for the distribution of benefits that it has been using for years [B, D].

Because of the years of experience in forest management in this area and the transparency in which ACOFOP has developed the management of funds, many forest-dependent communities rely on decisions they made, especially those regarding the management of funds [B]. The director of ACOFOP, a forest community leader, was founder of the organization and since the beginning he has been in charge of it [B]. This stability of 25 years has proven to be very effective to the point that ACOFOP has been internationally and nationally recognized.

In the case of the implementation of REDD+, ACOFOP knows that this could be an extra incentive for the activities they have been doing for many years for the sustainable use of forests. Even though the project is in its early stage of development, ACOFOP has agreed to use the economic benefits mainly for the management of the forests (inventories, forest monitoring and protection, and others) [B,C].

As such, ACOFOP has demonstrated to have many merits that have been used for the development of GuateCarbon. However, in order to determine the most likely chances of the project to attain positive social and environmental outcomes, it is important to analyse the conditions at the local level of this initiative. According to Table 6.2, the three identified conditions are present for GuateCarbon. This means that forest-dependent communities understand about REDD+ and are willing to participate in the implementation of the scheme. In addition, forest-dependent communities, through ACOFOP, have agreed about the type of social benefits they could receive and how they were going to use them for forest management activities. This demonstrates not just the capacity of forest communities (ACOFOP) but also how well organized these communities are.

6.4.2 Fundalachúa Project

Fundalachúa is a non-governmental development organization and an independent private non-profit organization made up of producer associations and the development community councils of Lachúa Lagoon National Park

(PNLL), which has a territorial extension of 54,000 hectares[430]. Fundalachúa has the participation of 55 communities with approximately 18,500 inhabitants, mainly ethnic Maya-Q'eqchi'. The main deforestation pressures come from the agricultural frontier and plantations of African palm oil[431] and a road that is planned to cross south of the region [D].

By 2011, the Fundalachúa REDD+'s project was in its start-up phase with support of the International Union for the Conservation of Nature (IUCN), the Guatemalan Association of Exporters (AGEXPORT), political and technical coordination of the Rainforest Alliance, as well as the government (MAGA, INAB and CONAP) as co-administrators of the area[432].

With the elements of design for REDD+'s project, forest communities' participation has been ensured by the fact that FUNDALACHUA is an organization made up of Community Development Councils (COCODES) [D,B]. As with GuateCarbon, Fundalachúa has been developed by forest-dependent communities who have organized themselves to develop this project [B, C, E], which is in its infancy. The project was in a protected area, which meant that forest-dependent communities living inside the area were allowed certain agricultural activities as described in the management plan that gave them the right of land use and, in this case, also carbon rights[B]. In the case of land tenure, and because of ancestral rights, these communities are allowed to live inside this area but not to have property titles [C]. The protection of PNLL has been under constant threat as it has had many incidences of illegal invasions of people who had illegal documentation claiming their ancestral rights [D,E;, this has provoked forest degradation of certain areas [B].

As the project is in its early stage, the mechanism for a fair and equitable distribution of benefits has not yet been developed [E], but it has been agreed that the economic incentives from Fundalachúa, as a REDD+ pilot project, will be reinvested for forest management activities and to enhance sustainable agricultural practices [B, C, E]. If the economic incentives are abundant, participating communities have agreed to invest in communal services, such as the repair of roads, construction of medical centres and others [B]. Because the project has not been developed yet (carbon credits sold), the element of a mechanism for a fair and equitable distribution of benefits is considered to be absent, even though interviewees commented that the distribution was planned to be fair in relation to forest protection and management activities of the participant communities [B]. In the same context, the fourth element regarding provisions ensuring transparency and accountability was also absent for Fundalachúa, as it has not fully started [B]. At the time of the interview, project developers were searching for funds for the development of the PDD and they mentioned that they have not yet thought about this [B].

[430] http://www.fundalachua.com/

[431] Núñez de León, Delia Lucrecia (2008). Aplicación de atributos de buena gobernanza ambiental en paisajes clave de Guatemala para su adhesión a la red regional de bosques modelo. CATIE. Turrialba, Costa Rica.

[432] Davis, A. (2010). *Reducción de Emisiones por Deforestación y Degradación de Guatemala: Iniciativas, territorios y actores de un proceso en marcha*. Programa Salvadoreño de Investigación sobre Desarrollo y Medio Ambiente-PRISMA. El Salvador.

Regarding the local conditions of the project, we can see that all of them are present for this initiative. Similar to GuateCarbon, this initiative has been developed by an organization of forest communities and could be described as using a bottom-up approach. This group understands about the topic and are willing to participate [B] on the implementation of the scheme as they consider that the economic incentives could provide extra income for activities that they already have [C, D]. However, even though this initiative does not have the years of experience as GuateCarbon does, is it trying to implement the project in a very competent way. Because of this, it could be said that the condition of capacity of forest communities to implement the scheme is present.

6.4.3 Lacandon: Forests for Life (LFFL)

The project "Lacandon: Forests for Life (LFFL)" is located in the Sierra del Lacandon National Park (PNSL in Spanish) in the Maya Biosphere Reserve, Petèn, Guatemala. The Sierra de Lacandón National Park is an area with flood plains, limestone mountains, plains and valleys that share a border with Mexico. It contains at least 30 Mayan archeological sites and harbors great biodiversity, including populations of jaguars and tapirs. It is one of the core areas of the Maya Biosphere Reserve (MBR). With 202,865 hectares, it is the second park in the largest land area of Guatemala and is co-administered by the Defenders of Nature Foundation (Fundación Defensores de la Naturaleza -FDN)[433]. This project seeks to contribute to mitigate climate change through forest fire prevention and reductions of at least 60% of deforestation in the area; the loss of forest cover averages about 1,239.98 ha/year[434]. The area has been subject to pressures throughout its history among these were: (i) immigration from throughout the country; (ii) change of land use; (iii) constant new illegal settlements or invasions; (iv) forest fires, and over-exploitation of natural resources like oil exploitation, looting of archaeological sites[435]; and (v) activities related to drug smuggling[436].

"Lacandon: Forests for Life" began as a deforestation prevention project, which has made preliminary measurements of carbon [D]. The project is being financed by a German Foundation, Oro Verde (Green Gold Foundation in German) with technical assistance from the Rainforest Alliance, The Nature Conservancy (TNC) and CONAP [D].

The main project developer for this initiative is the NGO that has been the co-administrator of the area for more than 25 years. As they have already been working with forest communities, they have gained experience of how to manage and coordinate activities with these forest-dependent communities, which varies from the previous initiatives. In relation to first element of design: inclusive, full and efficient participation and decision making

[433] FDN plans to have REDD+ projects in medium term, in other areas of their coadministration as the Sierra de las Minas. However, they are awaiting the implementation process in the PNSL to evaluate it and determine if they include other areas.

[434] FDN. (2010). REDD+ Guatemala: Grupo de Implementadores. Fundación Defensores de la Naturaleza. Guatemala. (Implementers Group. Defenders of Wildlife Foundation)

[435] Davis, A. (2010). *Reducción de Emisiones por Deforestación y Degradación de Guatemala: Iniciativas, territorios y actores de un proceso en marcha*. Programa Salvadoreño de Investigación sobre Desarrollo y Medio Ambiente-PRISMA. El Salvador. (Reduction of Emissions from Deforestation and Degradation of Guatemala: Initiatives, territorios and parties of an ongoing process. Salvadoran Research Programme on Environment and Development-PRISMA. El Salvador)

[436] FDN. (2010). REDD+ Guatemala: Grupo de Implementadores. Fundación Defensores de la Naturaleza. Guatemala.(Implementers Group. Defenders of Wildlife Foundation)

arrangements, the project developers have expressed that sharing the information about REDD+ could raise high expectations about the possible economic benefits; and until now the forest carbon market under REDD+ scheme is still uncertain [D]. For that reason, they have not included forest-dependent communities in the process of the design of the scheme [D]. Past experience has shown that when transferring information, it has been received in the wrong way and this has caused several problems with the implementation of certain actions when outcomes are not achieved as the forest people expected: "it is very difficult to deal with some communities, as sometimes, they just listen to what they can take advantage of" [D].

In relation to the protection of rights, approximately 40% of the area is in private ownership (bought by the NGO that co-administrators the area) and the rest belongs to the State. The distribution of rights, regarding tenure and carbon rights is something that has been under discussion; however, no agreement has been reached [D]. In relation to land use rights, this has been established in the protected area management plan, where it was clear the kind of activities forest-dependent communities can develop inside the park. However, things were different in the 40% of area owned by FDN in which there was no doubt that ownership of property rights belonged to them.

Because of past experience, the project developers have not developed a mechanism *per se*, for the fair and equitable distribution of social benefits, but they considered that the actual distribution of benefits was fair and equitable as it has been directed to forest management activities [D]. Forest-dependent communities have expressed that benefits should be for them as they conserved forests that now were being used to clean other countries' pollution [B]. From this, it can be noted that differences exist in regard to where the funds should be directed to; and also it can be noted that the element is absent for this project. Moving to the element of provision ensuring transparency and accountability, it can be said that it is present, as project developers have expressed that forest communities in some areas of the project want to make their own financial decisions but in the past, these decisions were corrupt. For that reason, the management of funds and how much they explain to forest communities was in the co-administrator' hands [D].

The process of design of LFFL as a REDD+ pilot project has shown that project developers of this initiative were working independently from forest-dependent communities. It was important to highlight that Guatemala was a multicultural country with 22 different ethnic groups, which meant that things that worked in one region of the country could, or could not, work in others. Project developers have been present in the area for many years, and already have knowledge of how this forest community behaved. In that regard, the condition of understanding and willingness of forest communities to participate in REDD+ scheme was absent, because it was the project developer's decision not to include them [D]. The main reason for this was based on the actual uncertainty of the scheme at the international level and because it was still unknown how many social benefits REDD+ scheme will be able to deliver [D, E].

Project developers have also planned that the economic benefits to be received from the project will be used mainly for forest management activities (monitoring, inventory and protection of illegal activities) to comply with

permanence and additionality, and, if possible, and if incentives were abundant, they have organized family vouchers to be spent in certain stores like supermarkets and construction [D]. Past experience has shown that when forest dependent peoples received cash, it was misused on alcohol, prostitution and drugs, affecting family stability and impoverishing families [B, D]. In relation to the last condition of capacity, it could be said that forest communities in this project have the capacity to implement the scheme even with some difficulties in relation to their expectations for the use of forest resources [D].

6.4.4 Ecodevelopment and Conservation Foundation (FUNDAECO)

The Ecodevelopment and Conservation Foundation (FUNDAECO) was the co-administrator of more than 450, 000 hectares (protected areas) of land nationwide. Their work areas were located in the Caribbean in Guatemala with the Cerro San Gil and Rio Sarstún; in the protection of the coastal marine zone of Amatique Bay and Sierra Caral and the Municipal Park Montaña Chiclera in Huehuetenango. Currently, the technical team was constructing a baseline to develop the PDD of a forest carbon project in the Caribbean region of Guatemala. However, based on a confidentiality agreement signed between the Foundation and the potential buyer of the carbon storage, it was not possible to obtain more information about the project. The entire process, which involved the creation of a forest carbon project, was expected to be completed in about two years (2012-2014) [D][437].

Because of the confidential agreement, not much information was obtained about this project or about the elements of the design. In relation to the inclusive, full and efficient participation and decision making arrangements, it was explained that the only actors involved in the process of design were the project developers (NGO FUNDAECO) and the international foundation who was dealing with the development of the technical documents [D]. It was also explained that the field work was done by forest-dependent communities [D]. This suggests that the element of participation was absent for this initiative.

Regarding the element of protection of rights, it could be assumed that the project being in a protected area has a management plan in which the land use activities are well established. Regarding land tenure, the land was owned by the State and, similar to other initiatives, the tenure rights were not transferred to these communities, but their presence inside these areas was respected through their ancestral rights. Carbon rights were part of the confidentiality agreement, so it could not be determined who the owners were or how were they expected to be distributed [D].

The other two elements (mechanism for a fair and equitable distribution of benefits and provisions ensuring transparency and accountability) were also part of the confidentiality agreement. However, in relation to the latter, it could be said that just the lack of willingness to provide information about the project makes the element absent as it was not transparent with the actions the foundation was developing [D]. For this initiative, it was unknown if forest-dependent communities in this project understand and were willing to participate in REDD+ schemes, and

[437] Personal Communication (2012).

also if they (forest-dependent communities) have agreed to social benefits. This was unknown as the project has been managed in a very secretive way. In relation to the capacity of forest communities to implement the scheme, it was known that forest-dependent communities in these areas have been managing the forest for many years, which gives them the necessary capacity for REDD+'s implementation as it was related to activities that these groups have been already doing; however, it was unknown if these communities were organized or they have an internal structure to discuss things in regard to the community [D].

As can be seen, every initiative has used a different approach for the design of the REDD+ scheme. The following section will analyse these projects in relation to the design process and the local conditions of each initiative and will answer some of the research questions. It will also examine what they have in common, what were the main differences and what were the possible outcomes that these projects could be expected to achieve when compared with the Latin America case studies.

6.5 Design process of REDD+ pilot projects in Guatemala and local conditions of the initiatives

This section will analyse REDD+ pilot projects in Guatemala and also the conditions under which they have been developed. This information will be used to answer the research questions developed in Chapter 5 related to the elements of design and local conditions. However, before getting into an analysis of the process of design of and the local conditions of each initiative, the following section will describe the socio-cultural context of Guatemala that influences the implementation of the schemes in one way or another.

6.5.1 Socio-cultural conditions in Guatemala

According to the National Statistical Institute (INE) in 2011, the total population of the Republic of Guatemala was 14,713,763[438] with a population density[439] of 103 habitants/km^2. The country has a cultural heritage with 22 ethnic groups of Mayan origin[440] with their own languages: 29 Mayan languages were spoken in Mexico, Belize, Honduras and Guatemala[441]. The difference between Guatemala and the rest of Latin-American countries was that Guatemala was a rural country, with 51.9% of its population still living in rural areas and just 48.1% living in cities, villages or towns[442]. Moreover, during 2002, 41% of the population identified themselves as 'indigenous' (Maya, Garifuna or Xinca origin) and 59% identified themselves as *mestizo*, proportions that has remained almost the same until today[443]. These differences mark Guatemala's social and cultural composition, which has complex implications for

[438] http://www.ine.gob.gt/np/poblacion/index.htm. Accessed on January 15th 2014

[439] MARN-URL, & IARNA-PNUMA. (2009). *Informe Ambiental del Estado- GEO Guatemala 2009*. Guatemala: Ministerio de Ambiente y Recursos Naturales.

[440] Davis, A. (2010). *Reducción de Emisiones por Deforestación y Degradación de Guatemala: Iniciativas, territorios y actores de un proceso en marcha*. Programa Salvadoreño de Investigación sobre Desarrollo y Medio Ambiente-PRISMA. El Salvador.

[441] Jimenez, A. e. (1998). *Mayan languages and the Mayan movement in Guatemala*. Paper presented at the Latin American Studies Association, Chicago, Illinois.

[442] URL, & IARNA. (2009). *Perfil Ambiental de Guatemala 2008-2009: las señales ambientales críticas y su relación con el desarrollo.* Guatemala: Universidad Rafael Landivar / Instituto de Agricultura, Recursos Naturales y Ambiente (IARNA).

[443] MARN-URL, & IARNA-PNUMA. (2009). *Informe Ambiental del Estado- GEO Guatemala 2009*. Guatemala: Ministerio de Ambiente y Recursos Naturales.

poverty, extreme poverty, racism, difficulties in having legal access to land and few opportunities to participate in politics.

The cultural diversity of Guatemala was a key challenge for the design and implementation of REDD+ schemes. The diversity of languages and cultural beliefs linked to different forest resources uses, and the different traditional knowledge about forest management was what complicated all REDD+ processes. The process of the design and implementation of one REDD+ pilot project differed according to the region and the forest-dependent communities present in the area. Despite these implications, the Guatemalan indigenous population fight for their ways of life and the complex world of visions, customs and identities.

In relation to education, in Guatemala the literacy rate for people above 15 years-old has shown a constant increase over the last two decades. According to UNICEF, the youth literacy rate was 89-85 % (male and female, respectively) in 2007-2011[444]. The literacy rate was higher for non-indigenous (83%) than indigenous (60%)[445] . With this literacy rate in Guatemala, it was important to think about the feasibility of these indigenous forest communities to get involved in a topic that was highly technical.

In addition to the feasibility of these forest-dependent communities to get involved because of illiteracy reasons, Guatemalan society has been characterized by very high levels of poverty, lagging social indicators and extreme inequality. Indeed, virtually every study of the country's situation during the 1970's, 1980's and 1990's noted that, among Latin America and Caribbean countries, Guatemala's level of poverty and social indicators surpasses only those of Haiti[446].

These socio-cultural aspects provided valuable information for the assessment of REDD+ pilot projects and the findings obtained, which are presented in the following sections.

6.5.2 Elements of design

As can be seen, all REDD+ pilot projects in Guatemala differ from each other. In relation to the design of the initiatives, two have been developed by forest community organizations, GuateCarbon and Fundalachúa which, to a certain extent, guaranteed the participation and involvement of decision making procedures of forest-dependent communities. The main difference between these two projects it could be said was the experience that project developers have had, not just in terms of forest management but of community organization, internal decision making procedures, mechanisms for the distribution of benefits and provisions for transparency and accountability. For the latter project, these last elements were absent, which could influence the achievement of the 'win-win-win' outcomes. Experience from the Latin America case studies, like NKMCAP and Madre de Dios, demonstrated that

[444] http://www.unicef.org/infobycountry/guatemala_statistics.html. Accessed 15th January 2014
[445] PNUD (2008). *Guatemala ¿Una economía al servicio del desarrollo humano 2007/2008.* Guatemala: Programa de las Naciones Unidas para el Desarrollo.
[446] WB. (2009). *Guatemala Poverty Assessment. Good performance at low levels.*: World Bank

the distribution of benefits and transparent procedures were some of the arguments that forest communities were demanding to know about from project developers, as these were related to management of funds, and participants wanted to know how the money was spent.

The bottom-up approach of GuateCarbon and Fundalachúa, as seen in initiatives like FONAFIFO, Scolel Te and SocioBosque, has proven to be an effective tool for the implementation and achievement of positive outcomes for different projects. The theory has shown how this approach promotes the ownership of projects, which made forest-dependent communities work towards the achievement of the project's goals.

The other two projects, LFFL and FUNDAECO, were designed mainly by project developers without further consultation with forest communities. LFFL have mentioned that their decisions in certain procedures were based on past experience with forest communities and also because of the many uncertainties the scheme still has, an argument that could be accepted as REDD+ has not been officially approved and was constantly being developed. This initiative could be compared with the NKMCAP project, in which project developers were the only ones who made decisions regarding the project and its benefits. However, in the case of LFFL, forest communities have not been expropriated, which could be one reason for the rejection, or not, of the project. On the other hand, the case of FUNDAECO was a secretive case, as it has been based on the confidentiality agreement that could raise many doubts, such as: (i) the credibility of the actors, especially of project developers and of buyers; (ii) the transparency of procedures; (iii) the liabilities and agreements; (iv)the benefits to be received; (v) the transacted price for the carbon credits; and many other doubts that could endanger the livelihood of forest-dependent communities and of the environment.

The four REDD+ pilot projects of Guatemala differ considerably in relation to forest communities structures, the processes used and project developers involved. These differences helped to answer Question *(1),* about shortcomings of the design of the REDD+ in Guatemala. One of the main shortcomings of all initiatives was related to the high transaction costs. The international requirements in the elaboration of technical documents were complex and costly. The verification and registration processes needed to be carried out by international organizations like Verified Carbon Standard (VCS) or Carbon, Community, Biodiversity Alliance (CCBA) which increased the costs that these initiatives did not have. Because of this, projects like FUNDAECO have started to work with an international company or organization (unknown) that were in the need of offsetting their GHG emissions. This international entity and FUNDAECO signed a 'confidentiality agreement' in which the latter was not allowed to give any kind of information about the project until it concluded. However, through third parties, it was found that this international entity has been paying for the development of the technical requirements, the verification and registration of the project and has also has set a price for the resulting carbon credits that were already owned by this entity [D, C]. In the same situation was FLLF, who has accepted the support of the European Union and the International Climate Protection Initiative (IKI) of the German Ministry of the Environment, Nature, Conservation and Nuclear Safety (BMU) that have been providing financial support for the development of all the

required studies and documents[447]. For GuateCarbon and Fundalachúa implementation costs have been obtained from different national sources and donations, which has taken time (five years) as it has not been easy to obtain the required amount for developing the necessary studies [B, C]. However, for these three cases (LFFL, GuateCarbon and Fundalachúa), forest carbon credits were not compromised by the donors [D,E].

Another shortcoming was related to the distribution of benefits and transparency. All projects mentioned the need to develop a mechanism for the distribution of benefits and some of them have already implemented this, like GuateCarbon and LFFL. However, others like Fundalachúa were still working on the idea of this mechanism. For example, FLLF, based on its experience, has provided economic incentives to some forest communities and because some of the methods have failed (when giving cash) it has been decided to give vouchers that will guarantee the proper use of the money. If economic incentives on REDD+ were abundant and include social benefits, this was the method (vouchers) project developers have decided to use for this initiative [D].

Chapter 5 emphasized the importance of the development of a proper mechanism for the fair and equitable distribution of social benefits derived from a REDD+ scheme, in which the distribution of benefits for different activities should be considered. The ideas proposed in the chapter are: (i) forest management activities, which for most of the initiatives, was the main activity on which economic incentives were planned to be spent on; (ii) project developers' assistance fee; (iii) social benefits; and (iv) a contingency fund, as seen with Scolel Te project, to cover risks and uncertainties in the delivery of the expected carbon credits. None of the initiatives in Guatemala mentioned about project developers' assistance fees or funds for externalities like natural disasters or the non-compliance on the delivery of carbon credits, when describing the mechanism for the distribution of benefits.

Even though the topic of REDD+ has been analysed and discussed at different forums at different levels in Guatemala, the process of design, how to implement the scheme and by whom, was a matter of constant debate. However, when explaining to interviewees about the ideal process for design, as outlined in Chapter 5, 75% of respondents mentioned that the proposed ideal process of design with those elements was what the country needed, the other 25% mentioned that some elements have been already applied, but other elements were difficult to consider, especially those related to the participation of forest-dependent communities, as described previously. It was mentioned that it could be adapted to the characteristics of the project and the forest communities [D]. This answers Research Question *(2)* about the agreement among REDD+ stakeholders on the desirability of the design of a scheme as the outlined in Chapter 5. The interviewees agreed that REDD+ was a complex, multi-level PES scheme, that recently has raised much interest from different sectors, and the proposed process of design could benefit the implementation in order to achieve the positive social and environmental outcomes [B, C, D, E].

This led us to answer Research Question (3) and the feasibility to create or develop a scheme as proposed. Many REDD+ stakeholders expressed that a scheme as the one proposed was what was needed. However, according

[447] http://www.bosques-lacandon.org/en/the-pilot-project-in-guatemala.html. Accessed 28.02.2014

to interviewees in the actual context of the country, it was difficult to think that this ideal process of design could be implemented [B, D, E, F].

6.5.3 Local conditions of REDD+ pilot projects

In relation to the local conditions and, in the same context as the elements of design, all the local conditions were present in just two projects, GuateCarbon and Fundalachúa. This emphasized the idea that bottom-up processes tended to be an efficient tool as forest-dependent communities of both projects understand about REDD+ and willingly accepted to start action for the implementation of REDD+ pilot projects. As part of the understanding about the scheme, there were uncertainties that surround it and, because of that, project developers of both initiatives knew that REDD+ might or might not deliver sufficient incentives for the development of social benefits [B,C]. Because of that, both projects have agreed to invest in incentives for forest management activities that will contribute in the permanence of the projects [B, D, E]. All these decisions have proven that the condition of the capacity of forest communities to implement the scheme was present, not just in terms of administrative capacity, but also in knowledge of forest management, monitoring and protection activities.

On the other hand, the local conditions for LFFL and FUNDAECO are totally different from the previous two initiatives. This difference could be related to the actors who were promoting the implementation of REDD+ schemes. In the first two initiatives, leaders of these forest communities were the ones promoting actions for REDD+'s implementation. In the latter initiatives, the NGOs managing these protected areas were the ones, to a certain extent, who were imposing the implementation of the scheme. It was important to highlight that this kind of 'imposition' has been based on previous bad experiences with these forest-dependent communities and as, has been explained before, Guatemala was a multi-cultural country, in which actions in one region could, or could not, apply in other regions of the country. Considering that, this should not be considered a negative imposition but a mechanism that adjusted to the characteristics of the communities in the project. For LFFL, the condition of understanding and willingness about the REDD+ scheme and the agreement of the type of social benefits were not present for forest-dependent communities. Project developers have agreed that any kind of incentive will be used for forest management activities. For FUNDAECO, no information was provided about these conditions; however, considering that forest-dependent communities have been living for many decades in these protected areas, it was assumed that they have the capacity to implement the scheme as it was related to conserving forest standing. For that reason, the condition was present for this initiative.

One of the conditions that I proposed as necessary was the understanding and willingness of forest communities to participate in a REDD+ scheme. This condition helped when asking about the willingness of forest-dependent communities to actively participate in REDD+. The literature has highlighted the importance of the willingness of forest communities to participate in any PES scheme like REDD+. In the case studies in Chapter 4, initiatives like FONAFIFO, Bolsa Floresta, Socio Bosque and Scolel Te, forest communities showed their willingness to participate in the projects by developing their own projects for Scolel Te, or an investment plan for Socio Bosque. The

willingness to participate was obvious for these initiatives as all these programmes were voluntary and forest communities were the ones registering to participate in the project. Forest communities in these initiatives understood their responsibilities, benefits and were confident that they will not be expropriated from their land because the project gave them the guarantee, through a letter of agreement in the case of Scolel Te. The opposite was shown in other study cases, in which the forest communities of NKMCAP and Madre de Dios feared for their survival because the project was, to some extent, imposed on the communities. In addition, these indigenous forest communities were forbidden to use forest resources from certain areas within their land. This type of expropriation negatively affected them.

In relation to REDD+ pilot projects in Guatemala, just ACOFOP and Fundalachúa understood and applied this condition for willingness. Both initiatives have been developed with a bottom-up approach where indigenous forest communities were the key players of the project, and also they have been forest managers for many years. This demonstrated their organizational skills that have been used for the design and implementation of REDD+ pilot projects. These skills have been even recognized internationally by different organizations. In contrast, in the case of FLLF project, developers mentioned that they did not expect forest community's willingness to participate, as they knew by experience this could compromise the development and implementation of the project [D]. As explained in the previous chapter, it was important to understand that the 'one size fits all' method does not apply and, even more so, when the country has a multi-cultural population. However, this does not mean that the project has to be imposed. Project developers need to find ways to engage forest communities in the scheme, as the sense of 'ownership' is a powerful tool for the success of any project. In the case of FUNDAECO information about willingness was not obtained

The framework chapter explained that willingness is tied up with understanding and knowledge about the project, which brings us to Research Question (5) and the knowledge about REDD+ and how this scheme may affect forest-dependent communities' relationship with the environment. REDD+ has faced many challenges even more so when implemented in multi-cultural and multi-language (24 different languages) countries like Guatemala. Many project developers, as seen in the different case studies of this research, have expressed their concerns about explaining the general context of REDD+ because the topic was highly technical and the scheme promoted benefits that were uncertain because of the international context of a scheme that has not yet been approved. In the same context, project developers of FLLF, and even international NGOs (INGOs) that have provided technical assistance, have expressed that sometimes it was better not to tell everything about the possible economic benefits as this could raise high expectations from the project and until now REDD+ was surrounded with many uncertainties [D,E].

Because of this, it is difficult to determine how much forest communities know about REDD+ schemes. By now, some information has been given through workshops and educational programmes that some national and international NGOs have been developing in different regions of Guatemala. This was implemented to reduce the possibilities of scams from carbon cowboys like the one experienced by FLLF in Guatemala:

> *"… three persons came to this forest community and told them about the idea of selling carbon (as we have been talking about the topic in several technical sessions) for an international company. These 'unethical persons' (internationally known as 'carbon cowboys') prepared working sessions and in the last one asked for US$1,000.00 per family who were interested in a project. The money was going to be used to register the project at international level. As part of the project, they offered to triple the amount of the 'investment'. They left the community with the equivalent of US$25,000.00 and never came back. The participating families came to us (project developers and co-administrators of the protected area) and told us what had happened. We explained them, as co-administrators of the protected area that they do not have to trust anybody. However, this action has affected the implementation of REDD+ in that region as forest communities do not want to know anything about the project anymore [D]".*

Lederer (2012) also mentioned about many other cases around the world where carbon cowboys have scammed many forest communities. So, before it is too late, it is important to consider educational workshops that could enhance knowledge and help forest communities' engagement with REDD+ pilot projects.

Chapter 2 emphasized how a simple PES scheme developed into a highly technical programme with many actors participating in it and expecting to achieve many different outcomes. Even for politicians, just the idea of carbon storage was difficult to understand not to mention for those forest communities where the literacy rate was very low. In the case of initiatives like NKMCAP and Madre de Dios in Peru, forest-dependent communities expressed their concern that they did not know anything about REDD+, they just knew that they have been paid to keep their forest standing. In contrast, in other case studies, project developers promoted workshops in order to inform and explain the main ideas of REDD+ and to clarify forest communities' liabilities and possible benefits. In the case of REDD+ pilot projects in Guatemala, just ACOFOP, with the assistance of RA, organized working sessions to explain more about REDD+ [B, E].

Considering the above, this brings us to answer Research Question *(6)* related to the impact that REDD+ may have on the ground with forest-dependent communities. This question could be answered from the perspective of property rights which was what many forest dependent people in other PES initiatives have been afraid of. The theory mentioned that REDD+ could enforce land security bringing positive benefits for people who depend on forest resources for their survival. However, in practice, things were not that simple. In REDD+ pilot projects in Guatemala, initiatives were in protected areas, therefore, it was difficult to give forest communities' rights over land and property. However, in all the cases, these forest communities have the certainty that they will not let their land be expropriated because the management of these protected areas has considered the protection of ancestral rights. It was important to mention that many of the protected areas of Guatemala have been suffered from invasions; however, the co-administrators of the area have already identified the genuine forest-dependent communities and the ones who were just looking for new areas to occupy and, in some cases, these communities were not even from the region.

Another way in which it was thought that REDD+ might impact on the ground was through the commodification of nature. The literature and case studies have mentioned that many forest-dependent communities have rejected a REDD+ scheme because of the economic value that has been set just on the carbon storage service, while forests provided many other ES, cultural and spiritual services which were beneficial for all human beings. It was difficult to determine to what extent REDD+ will affect all forest communities' relations towards the environment. As explained before, the diversity of cultures brought another challenge for the implementation of REDD+ in countries like Guatemala in which, for some forest communities, REDD+ will not affect their relations with forests, while for others it might. There was no other way that REDD+ will impact on the ground.

Regarding the relationships of forest communities towards the environment and the ecosystem, forest communities in ACOFOP and Fundalachúa have expressed that their connection and relations with forests will not be affected, because through REDD+ scheme forests will remain standing [B]. However, this perception was not completely shared, as an interviewee expressed the opposite view:

> *'… for us, forests are the connection with our ancestors, and this REDD+ project is a threat as rich people want to put a price to the trees without considering that for us trees are more than just wood, they are life, our protectors, forests have been our home for generations [B]'.*

Another condition that was proposed as necessary was related to the social benefits of REDD+, which should be agreed to by forest-dependent communities. I considered this condition as crucial because it related to the provision of forest communities' needs. As expressed in Chapter 3 before the implementation of REDD+ pilot projects, forest-dependent communities needed to agree a contract. If these communities agreed, they will have a certainty about what to expect in terms of social benefits from the scheme. This condition raised the following Question: *(7) whether the communities involved do or can agree on the type of social benefits they may want to receive?* According to project developers on REDD+ pilot projects in Guatemala, it has been decided that the economic benefits will be used primarily for forest management activities in order to comply ensure permanence of the forest. Some cases, such as LFFL, have also considered that if economic incentives were plentiful, they will provide specific vouchers to support families with food and construction material. In the case of GuateCarbon and Fundalachúa, the benefits will be directed towards forest activities and, if possible, to improve agricultural businesses. Regarding the study cases such as Scolel Te, SocioBosque and FONAFIFO, the social benefits were agreed to by forest-dependent communities who were the ones developing and implementing each initiative. In the case of Madre de Dios, NKMCAP and even with LFFL, forest communities were not the ones deciding the type or kind of social benefits to be received.

Another proposed local condition was related to forest-dependent communities' capacities to implement the scheme while considering other sources to fulfil their livelihood needs, such as, sustainable agriculture, agroforestry and others. This capacity also referred to communities' organizations (customary organization) which described how they operated as a group with internal processes for decision making procedures, structural organization,

leadership and others. This raised Research Question *(8)* about forest communities' capacities and how they could be strengthened and by whom. Forest communities in Guatemala varied considerably. In the initiatives promoted by forest-dependent communities, the capacity was more than obvious as they have previously achieved very important national and international recognition. In the case of ACOFOP, this organization has 25 years of experience, not just in forest management, but also in other related activities that provided evidence of their capacity for the implementation of REDD+ scheme. In the case of Fundalachúa, their capacity was also present even though they were starting to build experience through the process of design and implementation of the scheme. Regarding other pilot projects of Guatemala, their capacity was also present; however, it was unknown how much capacity they have in regard to their own communal organizational structure and procedures.

In all cases, the communities' capacity could be strengthened and this could be done through workshops, sharing of experiences and training programmes that could be used, if not for REDD+, for other future projects. However, the question of who should be the one promoting this capacity building was still unanswered.

6.6 Conclusions

Guatemala was a multi-cultural land of trees, in which communities differ, not just in their language, but also in their relationship with the forest resources, their forest management knowledge and their organizational structure. Because of this, it was difficult to apply a 'one size fits all' method for the design and implementation of REDD+ schemes. However, the most important aspect to consider was that these forest-dependent communities have been living and depending on these forest resources for centuries as descendants of the Mayan civilization. In addition, many of these forest-dependent communities have kept not only their traditional relationship with forests but also their indigenous language, which made it difficult to participate in consultation processes.

REDD+ pilot projects took their first steps in Guatemala in 2008. Many individual projects have already started with the preparation of the necessary technical documents in order to register their carbon storage. In overall terms, it was difficult to categorize these projects as 'dreams or nightmares' as they have not yet delivered any outcomes because they were in early phases of development. However, this chapter provided important information to predict how promising projects were to attain the 'win-win-win' REDD+ outcomes.

From all four projects, one stood out for its experience in forest management and for its inclusive, full and efficient participation and decision making procedures of forest communities. This was GuateCarbon, in which one of the main characteristics was their bottom-up approach. Even though they have received assistance from international and national NGOs for the development of REDD+ pilot projects, the overall process has been managed by ACOFOP. Guatecarbon's capacity as forest community organization and its staff's involvement in forest management as a bottom-up approach has been internationally recognized, which emphasized the occurrence of the condition of this capacity. In the same context, Fundalachúa was another example of a bottom-up approach in which forest communities and development community councils were participating together in the design and implementation of the scheme. However, the lack of experience with administrative management (capacity for the

implementation of REDD+ scheme) could be something that could affect the achievement of the claimed social and environmental outcomes. This project needed to develop a mechanism for the distribution of benefits and the conditions of transparency and accountability structures. By doing so, it was more likely that the project could achieve the 'win-win-win' outcomes.

It has been observed there were more positive outcomes when forest communities were involved in the design and implementation of PES schemes[448]. This involvement meant participation in the consultation and decision making processes. Based on case studies from Latin America, I proposed the elements of design in which knowledge and willingness to participate on the implementation of the scheme could also contribute to the achievement of the positive social and environmental benefits. For GuateCarbon and FundaLachúa, the forest communities were the ones designing and implementing the scheme. This meant that forest-dependent communities were fully involved in all processes and, because of that, GuateCarbon and Fundalachúa have promising chances to deliver the 'win-win-win' outcomes that REDD+ has promised. In other words, they might all turn to be considered as 'promising dream projects'.

In contrast in the project LFFL, project developers were the ones planning and making decisions on behalf of the forest communities, and this was where the idea of a 'one size fits all' method did not apply. Forest communities of Lacandon area were very different from those in ACOFOP and Lachúa National Park and this was what made the difference between the projects. Guatemala was a multi-cultural country and the LFFL project demonstrated the importance of knowing the strengths and weaknesses of forest communities living inside the area have before implementing any project. Even if this project has not considered the participation of forest-dependent communities for the process of design but it did not mean that the project will fail. It only proved that the NGO in charge of the development of LFFL, knew its forest-dependent communities living inside the area, and, based on past experience, has decided the leave them out of the process. Because of this, LFFL could be categorized as a 'mixed' project. Not a dream or nightmare project because it was still unknown how forest communities will react to the social benefits, if received. In other words, it was unknown how feasible the project will be in achieving 'win-win-win' outcomes.

In relation to FUNDAECO, the lack of information about the project did not allow the analysis to be developed. However, it is assumed that if they signed the agreement of confidentiality and did not provide information for research, then it was most likely that they have not informed forest communities who were part of the project and that could or could not influence them to reject the project or not. If information had not been provided to these forest communities, and if nothing were known about the project, this raises the possibility of negative outcomes, in other words, this project could be considered as a 'promising nightmare' project.

[448] Mayrand, K., & Paquin, M. (2004). *Payments for environmental services: A survey and assessment of current schemes*. Montreal: Unisfera- International Centre.

One thing that these four projects have in common was that they are attached to government's decisions when negotiating carbon rights. These projects were in protected areas which were owned by the State. In that regard, even if the initiatives have already signed a 'confidentiality agreement' the last word relating to the management and the rights of these areas and of its resources was the government. A major disadvantage that this attachments has on these initiatives, and the implementation of REDD+ activities, was that when political changes occurred, many of the decisions already made could be revoked. That was why it was important that Guatemala considered a new way to implement REDD+ actions that will allow continuity of processes within initiatives.

This chapter demonstrated that there were more things on the ground than dreamt of in REDD+ philosophy. REDD+ scholars have proposed many ideas and suggestions of how to do things. However, few proposals have considered the local conditions of countries like Guatemala. The reality was that non-Annex I countries differed one from another. Even in the same country differences could be found in the same region with forest-dependent communities. Just as was the case with ACOFOP and LFFL, in which in the same area, forest-dependent communities were very different in their relationship with the forest. The former has learnt about sustainable management of forests, which has provided of many economic benefits, while the latter needs to be guided by an NGO that does not want these communities to know about REDD+ because that could jeopardize the implementation of the scheme. This showed that there were more things on the ground within REDD+ pilot projects, than dreamt of in REDD+ philosophy. However, it was important to know what other things were on the ground at national context, than dreamt in REDD+. These other things were to be found in the national and international readiness processes that will be analysed in the following chapter.

Chapter 7

FINDINGS (2) IS GUATEMALA READY AT NATIONAL AND INTERNATIONAL LEVEL

7.1 Introduction

Even though REDD+ pilot projects in Guatemala are in their early phases, evidence has shown that these initiatives are very different but the process of the design and implementation of each initiative has helped with predicting the possible outcomes from these projects. However, the process of design and the local conditions are not the only determinants that influence the achievement of the 'win-win-win' outcomes. REDD+ schemes are also influenced by conditions at national and international levels and the participation of key actors.

The aim of this chapter is to present the findings of the research at the national and international levels according to what I proposed as being the ideal elements of the design and the conditions for the implementation of REDD+ scheme in non-Annex I countries like Guatemala. Once again, the main focus of this research is on national and local level, the international level has been analysed to identify new issues only. This chapter will answer other research questions developed in Chapter 5 about the national context that are related to the (Research Question 10) existing political support for REDD+ implementation, and how this support could be strengthened in order to achieve successful outcomes. However, not just the political support is important, but also (Research Question 11) the institutional capacity, and (Research Question 12) the kind of participatory processes that have been implemented. In additional to this, it is also important to analyse the physical characteristics the country has, therefore, (13) the suitability of the environmental characteristics is another important condition to analyse. All this led me to respond to another research question related to (Research Questions 14 and, 15) the feasibility of the establishment of a special fit-for-purpose REDD+ agency that could promote the proposed conditions in Guatemala. At the international level, this chapter will also analyse and answer questions related to (Research Questions 16 and 17) the feasibility of the development of an international agreement that could consider these readiness conditions.

This chapter finds that Guatemala was not yet ready for the implementation of REDD+ at the national level. Most of the readiness conditions that I proposed in Chapter 5 were not present at the national level. It also finds that the country was implementing the scheme using the same centrist, top-down approach that has failed to deliver positive outcomes in other projects. At the international level, I found that REDD+'s framework was officially approved in COP19. This meant that until now (2014) countries have had a guide about how to implement REDD+. However, this does not mean that Annex I countries will start buying carbon credits, as the second commitment period of Kyoto Protocol is still under discussion and is under this protocol that Annex I countries need to comply with commitments for reduction. In other words, if there were no buyers for the ES, the sellers will not receive the expected social and environmental benefits as REDD+ market will never start.

It is important to mention that these findings are based on data from the semi-structured interviews, reports, projects and publications. This section will also provide information about the general context of Guatemala, which will help to support the findings.

The chapter is ordered as follows: Section 2 analyses the conditions at the national level which are supported by information of the general context of the country. Section 3 analyses the international context of REDD+ scheme and brings an update on information about where the scheme is now and what its future is. Section 4 analyses how the development of the Social and Environmental Agency is the best option for obtaining successful social and environmental outcomes.

7.2 Is Guatemala ready at the national level?

The aim of this section is to analyse the conditions at the national level that have influenced the development of the REDD+ scheme and, therefore, the design and implementation of REDD+ pilot projects.

When analysing REDD+ at the national level, with the public institutions and all the actors involved, things get complicated. First, it is important to analyse to what extent REDD+ schemes have had the necessary political support. In order to do that, it is necessary to know about the legal-political and institutional context of forest resources in Guatemala.

7.2.1 Legal-political and institutional context of forest resources in Guatemala

In order to understand how REDD+ is going to be implemented, it is important to know what the legal context of forest resources in Guatemala is. The legal and institutional framework of forestry in Guatemala comprised two specific legislative decrees (laws) which were:

- **Forestry Law (Legislative Decree 101-96)** declared in Article 1 the following"*… It is declared of national emergency and of social interest, reforestation and forest conservation, for which will propitiate forest development and sustainable management…".*This law created the Forests National Institute (INAB) with the role of forest service, management and protection of forest areas outside protected areas, in particular when it came to approvals for forestry, forest incentives, coordination to control of illegal activities and protection of forests. INAB has the Forest National Registry with flows of information, formally constituted between nine Regional Offices where forest licenses are authorized; the central office is located in Guatemala City.

- ***Protected Areas Law, Decree Law 4-89 and its reforms (Legislative Decree 4-89)*** delegates to the Council of Protected Areas (Consejo Nacional de Áreas Protegidas-CONAP) the regulation, management

and protection of forests included within the Guatemalan System of Protected Areas (Sistema Guatemalteco de Áreas Protegidas-SIGAP)[449].

The institutional framework of the forest sector is complemented by associations of private producers, municipal forestry offices, consultation tables and the forest policy, as promoted by the National Forestry Programme of Guatemala (PFN-G) in different regions of the country. The Ministry of Environment and Natural Resources (MARN), the Ministry of Agriculture, Livestock and Food (MAGA) also have responsibilities for forest management as part of the Board of INAB.

According to forestry law, monitoring of illegal forest exploitation requires that municipalities, with the support of INAB and CONAP, implement the surveillance systems required to prevent illegal activities. CONAP and INAB, will support each other's activities in controlling the authorized use of forest products. However, in reality, it has only been partially fulfilled the support of Municipalities with Municipal Forestry Offices (162 of the 335 municipalities in the country)[450] due to reasons such as the lack of financial and human capacity and sources.

Regarding the implementation of REDD+ pilot projects, if the initiatives were inside a protected area (as were the pilot projects analysed in the previous chapter), CONAP was the institution, by law, in charge of its management. However, because of its lack of financial and human resources, CONAP has shared the responsibility of the protected areas' management with NGOs (co-administrators), but the final decision regarding any kind of project to be implemented in these areas is made by CONAP. INAB is in charge to follow up any activity related to forest management outside protected areas.

These two forest laws have developed policy instruments to reduce deforestation which are presented in the following section.

7.2.2 Policy instruments that promote actions to reduce deforestation and to improve forest resources

These sections will briefly describe the policy instruments relating to forest management.

7.2.2.1 Guatemalan System of Protected Areas (SIGAP)

In 1989, the Guatemalan System of Protected Areas (SIGAP) was established within the Protected Areas Law (Decree 4-89) which established the legal framework for its management. This law guides environmental policies to establish conservation, rehabilitation, restoration, protection and sustainable management of natural resources and wildlife**.**

[449] SIGAP is constituted by all the country`s protected areas and institutions that manage them. It consists of a mechanism to maintain representative samples of the country`s biodiversity at different biological levels and scales.

[450] Iturbide, M.J (2009). Guatemala: Implementación de Mecanismos REDD para la contextualización y discusión de actores en el Diálogo Forestal. Guatemala. (Implementation of REDD Mechanisms for contextualization and discussion of actors in the Forest Dialogue. Guatemala)

7.2.2.2 Forests Incentive Programme (PINFOR)

The Forests Incentives Programme (PINFOR) is one of the major programmes of the forest sector in Guatemala by means of INAB, NGOs and government representatives. This incentive provides temporary benefits for reforestation activities, but also for the regeneration of natural forests, protection or forest production[451]. Individual producers, communities and cooperatives participate, as long as they demonstrate that they have more than two hectares of forest land. The major criticism of this programme was that it benefits only those who have a property title.

The impact of PINFOR during the years it has been implemented has been the achievement of 89,590 ha of reforested areas and 162.000 hectares of natural forest under management, 4.3% and 1%, respectively, in areas with high level of poverty and 25.4% and 7.8%, respectively, in areas with hydrology catchments. [452] Although this extension is far from compensating for the accumulated deforestation, it is one of the best examples of a response to reverse the loss of forest cover. Other impacts include the strengthening of social organizations, the recovery of degraded areas and biodiversity, conservation of water sources and soil and the alleviation of poverty, since 64% of the total amount invested in PINFOR is directed to rural labour[453].

The commitments made by the PINFOR in 2009 include 1,121 projects, 19,976 ha of reforestation and 22,189 ha of natural forest under management; however, budget cuts in previous years have adversely affected the programme, with an estimated loss of 8.1 million in wages, 37% provided by PINFOR and 63% by property owners. This budget reduction as an economic disincentive, may jeopardize the conservation of natural forest areas, making them potential areas for planting agricultural crops as a mechanism to solve the shortage of financial resources.

7.2.2.3 Incentive Programme for small holders of land, suitable for forestry or agroforestry (PINPEP)

This programme began in 2006 and ended in 2010 (a period of four years) but from this date, the programme achieved the level of Law Decree No. 51-2010 whereby the programme became law, creating a forest policy instrument with coverage to holders of small portions of land in all municipalities in the country in perpetuity. The programme aims to: (i) increase the coverage to small owners in the process of reforestation and management of natural forests for protection and production, and the establishment and management of agroforestry systems; and (ii) incorporate the participation of those who have difficulty proving they are legally rightful owners of the land. The achievements through the 2007 were 2,446.32 hectares under forest management in the categories of forest plantations, agroforestry production and forest protection. This programme covers 79 municipalities of the departments currently affected by hunger and poverty[454].

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[451] Davis, A. (2010). *Reducción de Emisiones por Deforestación y Degradación de Guatemala: Iniciativas, territorios y actores de un proceso en marcha*. Programa Salvadoreño de Investigación sobre Desarrollo y Medio Ambiente-PRISMA. El Salvador.

[452] INAB. (2009). *Forestry statistics.* Guatemala: Instituto Nacional de Bosques, Departamento de Sistemas de Información Forestal.

[453] ibid.

[454] Iturbide, M.J (2009). Guatemala: Implementación de Mecanismos REDD para la contextualización y discusión de actores en el Diálogo Forestal. Guatemala

7.2.2.4 Natural forest management

It is estimated that Guatemala has about 700,000 hectares of forest under some form of forest management. Two thirds of these were under the forest concession scheme with the authorization of CONAP and the remainder belonged to authorized operations by INAB. The *Study of Trends and Outlook of the Forestry Sector of Guatemala* estimates that the country may have an area of one million hectares under production[455].

7.2.2.5 Rural and Municipal Forests (BOSCOM)

This project enhances municipal and rural forest management through technical assistance and capacity building directed to rural and municipal forest communities.

7.2.3 Institutions related to forest management in Guatemala

In Guatemala, the main institution directly related to the environment and natural resources is the Ministry of Environment and Natural Resources (MARN). MARN is responsible for "formulating and implementing policies related to the environmental sector, as well as for compliance with, and enforcement of, legislation relating to the conservation, protection, sustainability and improvement of the environment and the natural resources of the country and the human right to a healthy ecologically balanced environment, with the obligation of preventing pollution to the environment, reducing environmental deterioration and the loss of natural heritage, in order to achieve sustainable development, for the coordination of institutional, social and environmental affairs with the objective of creating a competitive, solidarity-based, equitable, inclusive and participative Guatemala[456]". MARN is the official focal point for the UNFCCC, therefore, the main organization responsible for the implementation of REDD+ schemes.

Other institutions directly related to forestry and climate change are:

(i) **National Council of Protected Areas (CONAP)**: supervises the management of the Guatemalan System of Protected Areas and natural resources found within protected areas and biodiversity in the country.

(ii) **National Institute of Forests (INAB)**: is responsible for the administration and protection of forest areas outside protected areas

(iii) **Protection System Against Forest Fires (SIPECIF)**: is responsible for the control and prevention of forest fires.

(iv) **Ministry of Agriculture, Livestock and Food (MAGA):** holds the presidency of the board of INAB.

(v) **Secretariat of Planning and Programming of the Presidency (SEGEPLAN)** aims to: a) oversee legal compliance of municipal activities; b) formulate and execute the national budget; c) manage government policies and public investment; and d) coordinate public administration institutions and international cooperation policies and programmes".

[455] ibid.
[456] Guatemalan Legislative Decree 90-2000: Creation of the Ministry of Environment and Natural Resources

The legal-political and institutional context of Guatemala provided information that could be used for the analysis of the conditions at the national level in the following chapter.

7.2.4 Conditions at the national level for the implementation of REDD+ schemes

The framework chapter proposed a list of conditions that are required at the national level to effectively implement REDD+ schemes in Guatemala. These conditions include: (i) political support for designing and implementing REDD+ as a PES scheme; (ii) institutional capacity for the design and implementation of REDD+ schemes; (iii) involvement of forest-dependent communities in REDD+ scheme processes; (iv) suitable environmental characteristics for REDD+ activities. This section will analyse the presence or absence of these conditions at the national level in Guatemala.

After the previous chapter about the implementation of REDD+ schemes, and the analysis of the context of Guatemala, it is important to ask the following Research Question *(10) how much political support is in Guatemala?* As seen in all initiatives, one of the main challenges the projects have been facing was the constant political change. In the case of ACOFOP alone, the design and implementation of GuateCarbon has been under discussion for more than seven years [B]. During these years, ACOFOP have negotiated the project with three different Executive Secretaries in CONAP. In this case, alone, the lack of continuity of high authorities which most of the time come with their own technical staff and who sometimes also changed, has affected the implementation of the project, therefore, the achievement of social and environmental benefits. However, not just ACOFOP has suffered from these changes. The other three initiatives that are also being implemented inside protected areas have had to face the same weakness in political support. The main topic of discussion and negotiation of these initiatives with CONAP has to do with the distribution of benefits from the carbon credits, which were also tied to the property rights of these carbon credits. This suggests that the political support varies according to political changes, where some have shown support, such as when creating the Inter-institutional Commission on Climate Change (ICCC) that was active while the political party of that time was in power (2007-2011), while others have not, when the following political administration invalidated the ICCC.

In relation to the condition of institutional capacity to implement a REDD+ scheme MARN, as the main leader of REDD+, has taken important steps in the discussion of the scheme at the local and national level. However, as explained in Chapter 6, the institution has been criticized for the lack of support given to the different processes in REDD+ pilot projects due to the constant political changes. From 2011 until now (2014), this institution has had three different Ministers of Environment, and in the same context as CONAP, with different professional backgrounds and understanding of the topic and political pressures. Although, both government institutions have kept some of the technical staff who have tried to keep REDD+ processes going, some processes have had to stop because they involved financial resources which have to be approved by the Minister and, when a lack of knowledge about the topic is present, the only thing that can be done is to stop any disbursement, until knowledge if build, if it is.

In simple words it can be said that the political support for the REDD+ scheme and the institutional capacity of MARN has been weak in Guatemala. This leads to Research Question: *(11) what institutional capacity exists in Guatemala at national level to implement REDD+ effectively? And if inadequate, how can this be strengthened in order to implement an effective REDD+ scheme?* One hundred percent of interviewees have expressed that skilled and permanent staff with decision making capacities to keep the processes going is what is needed. MARN and CONAP have very few professionals (two and one, respectively) to follow up on REDD+ activities. At the time of the interviews in MARN, the Unit of Climate Change had one person in charge of REDD+ at the national level. This person had participated in more than three COPs and had a good knowledge about REDD+ at the international and national levels. However, with the political changes at the end of 2011, this person was removed and a new one was hired after one year (end of 2012). During this year, REDD+ processes were on standby as no one was following them up. Likewise, in CONAP, the Unit of Climate Change was created in 2010 and, since then, it has had just one professional in charge (since it was created, the office has had three changes). In both cases, REDD+ is not the only responsibility they have and most of the time these professionals lack the time to effectively implement or develop REDD+ activities. In some cases, these professionals do not have a comprehensive knowledge about REDD+ schemes but lacked time and language knowledge (many publications are in English) to learn from the research, publications or other country's experiences. Furthermore, these professionals do not have decision making capacity, which also contributes to the slow speed of processes. Considering this, it is difficult to promote capacity building when public institutions do not have permanent staff.

The institutional capacity could be seen from two different approaches: government institutions and project developers[457]. The first approach about governmental institutions mentioned that for MARN, 15% responded that the institutional capacity is high, 33% medium and 52% low; for CONAP, 5% answered that is high, 24% medium and 71% low and, for INAB, 9% mentioned it was high, 29% it was medium and 62% low[458]. As can be seen, the majority of the interviewees from that research considered that the institutional capacity of government institutions is between medium and low (mainly). The other approach is related to the institutional capacity of project developers which, in this case, referred to co-administrators of protected areas. Regarding national NGOs, 14% mentioned that the institutional capacity of NGOs is high, 38% mentioned it is medium and 48% mentioned it is low. With international NGO's, 19% mentioned it is high, 48% mentioned it is medium and 33% that it is low[459]. In other words, the institutional capacity of the government sector, as the main leaders for the implementation of REDD+ scheme in Guatemala is low, while the capacity of NGOs is between high and medium. This leads me to analyse how this capacity can be strengthened. It is difficult to propose a mechanism to improve the institutional capacity of government institutions, because the constant staff rotation is a weakness that first needs to be addressed before thinking of building capacity. This demonstrates that Guatemala needs a new institution that could provide the necessary institutional capacity to face the challenges that REDD+ has proven to have.

[457] Iturbide-Flores, M. (2012). Needs for capacity building to face the challenges of international negotiation for REDD+ activities in Guatemala. Guatemala: Programa REDD+CCAD/GIZ. (p.13)
[458] ibid (p.18)
[459] ibid ??

In relation to the condition of forest-dependent communities' involvement, findings have shown that processes have been open to different actors which leads to Research Question: *(12) Is there a process for the inclusive participation of all REDD+ stakeholders?* For example, the regional educational workshops and technical sessions that MARN has led, has involved different REDD+ stakeholders. However, as the framework chapter mentioned, it is important to involve other REDD+ stakeholders but with decision making capacities as well, in order to create a feeling of ownership of the projects. If the government is the only one making decisions the processes will become a vicious cycle with staff rotations, delay of processes and, as soon as everything starts again, a new political party will take office. This lack of continuity reduces the chances to develop positive social and environmental REDD+ outcomes.

The only condition present in Guatemala (at national the level) is the environmental characteristics of REDD+ activities. Regarding forest cover, and according to the report in 2006, the country had 3,866,383 hectares, which represented 35.5% of the total surface of the country. Within this land area, Guatemala has a significant portion suitable for forest use[460]. In that sense, in the study of land usability of the INAB [461] there is a separation between forest usability or suitability for forestry (APF), which are the activities for the production of timber and goods, and more generally, includes the production of environmental goods and services. Based on this categorization, it is considered that Guatemala has an APF for the production of environmental goods and services of 40.16% of its territory, which is approximately 4.32 million hectares

The emergence and evolution of REDD+ showed how the concept and activities of REDD+ had changed as well. Initially, it was just considered deforestation and forest degradation activities in which the four initiatives in Guatemala applied very well. Although, the activities regarding the (+): role of conservation, sustainable forest management and enhancing forest carbon stocks could also be enhanced and implemented at the national level, in areas were forest conditions are suitable. However, it is also important to analyse and assess the drivers of deforestation and forest degradation that affect Guatemala.

According to URL & IARNA (2009), pressure in forest resources in Guatemala is caused by different drivers that contribute to global emissions of GHG. Just in 2006[462], a total of 30,712,006.00m^3 where lost from different activities, some of them legal but the majority were illegal. The main drivers of deforestation in Guatemala are:

- ***Deforestation*** is a notorious problem in Guatemala; and studies have demonstrated that the country has lost 50% of the forests since 1950[463]. Some of the reasons for this loss have to do with: (i) lack of job opportunities and population growth that have forced communities to occupy areas with forests and change them into agricultural or livestock systems, which provides them with their basic needs; (ii) agricultural culture. Even though 40.16% of Guatemala's land is suitable for forests, indigenous

[460] Usability understood in physical terms as the support of a unit to be used for certain purposes or coverage and / or treatments.
[461] INAB. (2002). *Bosques comunales y municipales*. (Communal and municipal forests) Guatemala: INAB.
[462] URL, & IARNA. (2009). *Perfil Ambiental de Guatemala 2008-2009: las señales ambientales críticas y su relación con el desarrollo.* Guatemala: Universidad Rafael Landivar / Instituto de Agricultura, Recursos Naturales y Ambiente (IARNA).
[463] IARNA-URL. (2004). *Perfil Ambiental de Guatemala 2004*. Guatemala: IARNA-URL.

communities have an agricultural culture inherited from their Mayan ancestors, which means that they need space to keep up this practice; and (iii) public policies oriented to agricultural activities. Public policies over the last 150 years, have been oriented towards the promotion of agricultural and livestock activities, not considering the physical capacity of the soil. In general, and until today, policy instruments have promoted access to land, financial credits and technology transfer to produce more and better agricultural products.

- ***Forest fires*** *are* one of the most difficult pressures to work with. The reason is because most of them are intentional with the purpose of eliminating the forest cover. According to research, during the years from 2000-2008, the total of 278,264 hectares has been impacted with forest fires. This impact includes total loss, degradation of the forest canopy, or both[464].

- ***Forest pests and diseases*** occur in Guatemala in broadleaved and mixed forests. During 2000 pine forests (*Pinus caribaea)* in the northern region of Guatemala were affected by the pine weevil (*Dendroctunus spp)*, with reported a loss of 3,099 hectares. However, it has not been reported since. Other pests like the screw worm (*Hypsipyla grandella)* and tree rust (*Cronartium spp)* have also appeared in Guatemala resulting in the loss of extensive forest land. Nowadays, these forest pests are under control.[465]

- ***Illegal logging*** is a noteworthy activity in Guatemala, which should be faced, seriously. According to research, between 75% and 95% of the exploitation conducted in the forests was illegal[466].

- ***Firewood*** is one of the most common uses that forest communities have for forests. According to the reports of the National Survey of Living Conditions (Encuesta Nacional de Condiciones de Vida-ENCOVI) the annual consumption of firewood in the country is around 20.6 million cubic metres (m^3) in a ratio of 1- to 3.5 m^3/habitant/year[467].

- ***Property, use and access to land.*** Forest resources for the Guatemalan population are very important. According to data from ENCOVI 2006, 74% of the population has a direct link to forest, 45% live in poverty and 21% in extreme poverty. Of the total number in poverty, 99% of this is linked indirectly to this resource; while, for the case of the extreme poverty, it is 93%468.

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464 URL, & IARNA. (2009). *Perfil Ambiental de Guatemala 2008-2009: las señales ambientales críticas y su relación con el desarrollo.* Guatemala: Universidad Rafael Landivar / Instituto de Agricultura, Recursos Naturales y Ambiente (IARNA).

465 Melgar, W. (2002). *Estado de la diversidad biológica de los árboles y bosques de Guatemala*. Costa Rica: FAO.

466 URL, & IARNA. (2009). *Perfil Ambiental de Guatemala 2008-2009: las señales ambientales críticas y su relación con el desarrollo.* Guatemala: Universidad Rafael Landivar / Instituto de Agricultura, Recursos Naturales y Ambiente (IARNA).

467 INE. (2006). *Encuesta Nacional de Condiciones de Vida (ENCOVI).*Guatemala. Instituto Nacional de Estadística.

468 URL, & IARNA. (2009). *Perfil Ambiental de Guatemala (Environmental Profile of Guatemala) 2008-2009: critical environmental signals and their relationship with development.* Guatemala: Universidad Rafael Landívar, Instituto de Agricultura, Recursos Naturales y Ambiente.

According to URL & IARNA (2009), during 2006 the total reduction in the volume of wood was 30,712,006.00m^3 of which the main extractions were in broadleaved species, trees outside forests and mixed forest at 63.78%, 16.95% and 12.78, respectively. The main cause of the reduction was forestry with an extraction of 29,168,397.00 m^3 for that year, which represents 94.97% of the causes, then forest fires with 4.30%, natural death with 0.56% and pests with 0.17%[469]. However, from these causes of reduction, 95.15% are from illegal activities in broadleaved forests, trees outside forests, mixed forests and coniferous forests at 68.65%, 14.11%, 11.61% and 5.32 % respectively[470].

Bearing in mind these forest characteristics (forest resources context and drivers of deforestation and forest degradation) the information provided an answer to Research Question *(16)* that says *Does Guatemala have suitable environmental characteristics for REDD+ activities?* Yes, the country has the environmental characteristics to promote REDD+ pilot projects.

As it can be seen from these results, many national conditions are not present at all. In some cases some conditions have worked for some projects and in some other cases it has not. For that reason, and because it is necessary to establish appropriate procedures for the design and implementation of a multi-level, multi-actor PES scheme like REDD+, I proposed the establishment of an independent Social and Environmental Agency (S&EA). This agency will be analysed in the following section.

7.3 Social and Environmental agency for the implementation of REDD+

The idea of the Social and Environmental Agency (S&EA) as a mechanism to implement not just REDD+ scheme and pilot projects but also any other PES schemes, is a way in which many of the weaknesses identified in this chapter could be addressed. As was seen previously, many of the conditions at the national level were not present. From the analysis of Latin America case studies, it was shown that those projects in which an independent entity was in charge of the management of REDD+ scheme, had more possibilities to achieve positive outcomes. The literature also emphasized the need to do things differently as, at present, many non-Annex I countries like Guatemala have failed to address issues of corruption, weak governance structures, constant staff rotation and much more. In doing things differently, I will refer to the chapter on the theory of REDD+ as a PES scheme, where I mentioned the necessity of developing a 'governance without government' structure. However, I also mentioned in Chapter 5 that the presence of the government is also essential, and for that reason I changed Roseanau's proposal to 'governance outside government" and this is the structure of S&EA.

From the interviewees, 19 out of 25 agreed that an independent agency, with the characteristics of S&EA will make a difference in developing and improving the elements and conditions for the design and implementation of REDD+ scheme in Guatemala [A,B,C,D, E, F]. An independent agency, as seen in the initiatives of FONAFIFO and

[469] ibid

[470] URL, & IARNA. (2009). *Perfil Ambiental de Guatemala (Environmental Profile of Guatemala) 2008-2009: critical environmental signals and their relationship with development.* Guatemala: Universidad Rafael Landívar, Instituto de Agricultura, Recursos Naturales y Ambiente.

SocioBosque, could bring many benefits at the local, national and international levels. The S&EA proposed in the framework chapter is integrated with different actors from: (i) academia, (ii) organizations of forest communities, (iii) development councils (iv) government; (v) national NGOs; (vi) international NGOs; and (vii) the private sector. This open participation would be useful for the decision making arrangements that could affect local and national outcomes. At the local level, the agency could promote educational workshops and sessions explaining different topics like climate change and its relation to the environment, REDD+, biodiversity and others [B,D]. These workshops could answer the questions that many forest-dependent communities could have, and could also alert forest communities about avoiding future 'carbon cowboys'. At the national level, the agency would be efficient in the development and implementation of the elements and conditions for positive social and environmental outcomes; and, at the international level, the agency could be the voice of the country, proposing ideas and implementing the necessary actions at the national level. It is important to have a voice at the international level to demonstrate the real capacities of the country.

All this information led to an answer for the following Research Question *(17) Can such an agency be established in Guatemala?* I consider that, yes, it is feasible for the country to establish an agency just as the one proposed. All the interviewees agreed that this is what Guatemala needs in order to efficiently implement not just REDD+ schemes, but also to contribute on the compliance of many international commitments, and to also keep the continuity of the processes and programmes, that usually are stopped or cancelled with political changes [A,B, C, D, E, F].

7.4 International conditions that influence the REDD+ scheme at national and local levels.

The aim of this section is to analyse REDD+ at the international level, and to identify what are the key issues that could influence not only the implementation of the scheme, but also the achievement of the social and environmental benefits the scheme has claimed it can deliver.

7.4.1 Warsaw: REDD+ after the end of the first commitment period of Kyoto Protocol

The first commitment period of the Kyoto Protocol finished on December 2012, which means that the protocol no longer imposes any quantitative limits on states' GHG emissions. The most important achievement of COP 18, was the adoption of the Doha Climate Gateway, in which the parties decided to work towards a mechanism to prevent the accumulation of a new surplus in the second commitment period of the Kyoto Protocol (2013-2020)[471]. Doha also left a feeling that REDD+ and forests were going to be considered as an integral part of the next international treaty on climate change in 2020[472].

In 2013, COP 19 brought good news for REDD+ as the 'Warsaw Framework for REDD+" was officially approved. The document calls not only for result-based financing, but also for the financing of all phases of REDD+

[471] Kollmuss, A. (2013). Doha Decisions on the Kyoto Surplus explained: Carbon Market Watch. (p.3)
[472] http://blog.cifor.org/13152/disappointing-outcome-for-forests-in-doha-but-redd-can-still-move-forward. Accessed. 26.05.2014

implementation (readiness actions, payments for performance, capacity building, FPIC processes and others). The final document also makes result-based finance (Decision 9/CP.19), conditional on safeguards being met (Decision 12/CP.19), places clear rules for transparency and accountability and sets minimum reporting requirements before countries can qualify for result-based finance (Decision 11/CP.19)[473].

The decisions in Warsaw on REDD+ were meaningful steps towards the real implementation of REDD+ at the international level. Seven key issues were highlighted in the framework text:

(i) *Monitoring, Reporting and Verification (MRV):* The framework confirmed that REDD+ activities should be implemented in phases (development and implementation of national strategies, plans, policies and measures and capacity building[474]) with the aim to involve results-based actions that were to be fully measured, reports and verified[475]

(ii) *Forest reference emission levels (REL) and forest reference levels (RL):* These levels will serve as points of reference for assessing each country's performance in implementing REDD+ activities.

(iii) *National Forest Monitoring Systems (NFMS):* This was already agreed in Copenhagen at COP 15 where it was agreed non-Annex I countries establish a "robust and transparent" national forest monitoring systems[476] as part of the general guidance on MRV for REDD+.

(iv) *Safeguards:* This decision established that non-Annex I countries were required to provide a summary about how all of the safeguards were being addressed and respected throughout the implementation of the REDD+ activities, which was a requirement to access the results-based payments (Decision 2/CP. 17 para 64 and Decision 9/CP.10 para 4).

(v) *Drivers of deforestation:* The framework incorporated drivers and has identified the significance of addressing the drivers of deforestation and forest degradation in the context of REDD+; however, it did not establish requirements for non-Annex I countries[477].

(vi) *Finance and result-based payments:* The framework did not prescribe rules to address this issue, but highlighted that finance should be "result-based" and that non-Annex I countries needed finance from funding agencies like the New Green Climate Fund (GCF). The GCF was launched during COP16 but up to COP 18 at Doha, the GCF remained empty.

(vii) *Institutional arrangements for REDD+:* Considering the need for institutional coordination, the framework established that non-Annex I countries were encouraged to set up a national REDD+ entity[478] or designate

[473] https://unfccc.int/methods/redd/items/8180.php. Accessed 26.05.2014
[474] Decision 1/CP.16 (para 73)
[475] Decision 4/CP.15 paragraph 1(d)

[477] Decision 15/CP.19 paragraph 1
[478] Decision 10/CP.19 paragraph 1

a focal point to serve as a liaison for REDD+ issues. This entity or focal point can nominate their entities to obtain and receive result-based payments[479], and shall meet regularly and share information and experiences as well as identify gaps, needs and good practices for REDD+ activities and financing arrangements[480].

7.4.2 What is the future of REDD+ at international level

Since the Warsaw Framework for REDD+ was officially approved in 2013, the future of REDD+ seemed less blurry as actions were more concrete for non-Annex I countries. However, the financial aspect was still a topic that needed to be efficiently set up and implemented. It is not just the financial aspect that mattered, but also how effective non-Annex I countries were going to be in the management of the scheme. This led me to answer the following Research Question: *(15) How likely or feasible is the development of an international agreement (REDD+ scheme) that enhances the establishment of 'governance without government' structures like the S&EA?* Since the beginning of the negotiation of REDD+ scheme, the Cancun Agreement approved the social and environmental safeguards (Chapter 2) in which it was required that non-Annex I countries developed or reformed "transparent and effective national forest governance structures, taking into account national legislation and sovereignty". This has been emphasized within the Warsaw Framework for REDD+. In view of this, I believe that the S&EA could become that national forest governance structure for PES schemes that is needed, and that could also implement the actions described in the previous section. Indeed, the actions proposed within the S&EA perfectly matched with the ones described in the Framework for REDD+. For example, the S&EA will be in charge of the development and implementation of the National Strategy for the Reduction of Deforestation (ENRD) explained in Chapter 6, and it was a feasible development as REDD+ actors interviewed have agreed that an agency as the S&EA will help not just in the implementation of PES schemes (REDD+ included) but also will contribute to the conservation of the environment and biodiversity.

So, taking into consideration how REDD+ pilot projects in Guatemala were designing and implementing the scheme, and judging the local and national conditions that influenced (positive and negative) the implementation of REDD+ and analysing how things at international level keep developing, the best course of action was by the establishment of the S&EA. But, this raised another Research Question: *(16) What is needed to put in force the conditions for the implementation of a socially and environmentally positive REDD+ scheme?* In order to efficiently develop the conditions proposed in the framework chapter, what the country needed was the willingness of different sectors to work towards a common goal and in which hierarchies were horizontal. During the field trip in 2011, the 25 interviewees agreed about their willingness to participate in the development and implementation of this agency. This demonstrated that the establishment of a governance outside government structure was feasible.

[479] Decision 10/CP.19 paragraph 2
[480] Decision 10/CP.19 paragraph 3,4

7.5 Conclusions

This chapter has provided information about the national and international conditions and, more importantly, about the feasibility of developing and implementing the S&EA proposed in the framework chapter.

In relation to the conditions at the national level, Guatemala has many laws, strategies, norms and regulations that oversee the environment and natural resources. This also includes international agreements, policies and their instruments of implementation, along with many decrees and regulations delimited in other decrees such as: laws on hydrocarbons, mining, education and others that defined crimes against the environment. According to a recent institutional assessment of Guatemala (July 2013), developed by USAID and Forest Carbon, Markets and Communities (FCMC) the researchers agreed that even with a broad regulatory framework and various regulations in place, one of the main problems is the weak enforcement of laws and regulations[481]. However, according to this chapter and in relation to the findings, the national context has more than these weaknesses that need to be address.

Political support and institutional capacity are two conditions that should be analysed together. In the former, the main weakness was the constant staff rotations that occurred every four years. Initiatives and processes faced new ideologies, strategies, policies, plans and programmes every four years with the political changeover. This affected the continuity of processes and the stability of institutions. Even though some governments have shown support, as in the case of the past political administration in which the Inter-Institutional Commission on Climate (2007-2011) was developed and launched to address topics of climate change, the political party that followed (2012-2015) annulled its operation. This created instability in the processes, projects and programmes that this group had already been implementing. Every four years, different initiatives have to initiate a process of 'lobbying' with new authorities in order to find and build the needed political support to keep projects operating. This lobbying action involved building knowledge and capacity, which meant investments of time and money. Regarding the latter, the institutional capacity to monitor and control was sometimes deficient and unable to guarantee compliance with the established regulatory framework[482]. This weak enforcement of laws was also related to the low financial and human capacity that environmental institutions like MARN, CONAP and INAB have.

In spite of the above, Guatemala has a legal-political and institutional framework that provides a basic foundation for environmental management. However, it is important to examine that even with this legal-political and institutional framework, the degradation of forests and deforestation activities continue increasing. This means that Guatemala needs to do something different in order to achieve different results. It has been proven over many years that centrist, top-down approaches that changes every four years and have not given the expected positive results.

[481] FCMC, & USAID. (2013). Institutional Assessment and sector analysis for the low-emissions development strategy in Guatemala. Washington, DC: Forest Carbon, Markets and Communities (FCMC) Program, US Agency for International Development (USAID).

[482] Ibid. (p. 8)

At this time, Guatemala is taking another important step with the process of developing a national strategy for the reduction of deforestation that also contained REDD+ activities. This top-down structure (Figure 6.2) has three levels of coordination. The first level was mainly integrated by the highest authorities of governmental institutions (MARN, MAGA, INAB and CONAP) that have a decision making capacity. These authorities were the most susceptible to change every four years. The only exception was INAB in which the manager was selected by a board of different institutions. This board provided more stability to the institution, giving continuity to processes, projects and programmes. The second level was technical and was integrated by staff from these four governmental institutions who are in the same unstable condition every four years. The third level was the national body of consultation and participation in which other forest stakeholders like NGOs, the private sector, academy, rural, forest-dependent communities and others participate. All these levels were technically assisted by international NGOs who were the facilitators of the processes. However, even for these facilitators it has been difficult to keep continuity of processes for longer than three years, considering that the first year of the new political administration was used to gain trust and build knowledge of processes and projects.

The last level of the described structure (national consultation body) was where participation and involvement of forest-dependent communities took place. However, participation has been limited to those forest organizations that have the economic capacity to travel to the city for these meetings. According to MARN, several discussions about the ENRD has been developed in other regions of the country, but this has been seen by forest-dependent communities as workshops to provide information and not to participate in decision making processes about the strategy. The national consultation body was where things were presented to different actors. However, the final decision of any activity comes from the higher level of the structure [B, D, E, F]. Is in this space where project developers of REDD+ pilot projects participate to discuss common issues like carbon rights of projects inside protected areas, or financing mechanisms for the implementation of the scheme and many others. In most of the initiatives, project developers have had one-on-one discussions about their initiatives with the executive secretary of CONAP.

From the analysis of the research questions, it may be concluded that Guatemala was trying to implement actions like the development of the ENRD. Although, the method used (top-down) was the one that has been used for many years and has been proven wrong. Consequently, the development of the S&EA was a new way of doing things differently (bottom-up approach), which was based on the analysis from the dream projects of the Latin American case studies, also had very high expectations of achieving positive outcomes just like FONAFIFO, Scolel Te or Socio Bosque.

The establishment of the S&EA and the roles that I have proposed in Chapter 5, were also supported by the decisions of Warsaw Framework for REDD+, where the need for non-Annex I countries to set up a national REDD+ entity to serve as a liaison for REDD+ issues, which included decision making arrangements, result-based

payments and the implementation of the REDD+ safeguards, was mentioned. All these activities and others are considered in the S&EA structure.

It can be concluded from this that, indeed, there is an experience of REDD+ in Guatemala but the type of schemes and the national processes that have been developed do suggest that REDD+ was introduced expecting to meet the international criteria that had been set for the REDD+ framework; however, in reality, at the national level, these procedures were not met. One of the main challenges that every project needed to deal with was the constant political changes that influenced the design and implementation of PES schemes like REDD+. This suggested that the establishment of an agency, as proposed in the previous chapter, could improve the possibility of a more successful REDD+ scheme being created in the future.

Chapter 8

REDD+ SCHEMES THROUGH GOVERNANCE OUTSIDE GOVERNMENT STRUCTURE

8.1 Introduction

REDD+ has been sold at the international level as a mechanism by which non-Annex I countries will receive, and act on, economic incentives. In turn, those actions will yield positive social and environmental outcomes[483]. The promise of positive social and environmental benefits has been based in PES theory, where buyers pay sellers to keep producing a specific ES. However, things in REDD+ are not as simple as PES theory describes. As yet, REDD+ is surrounded by uncertainties, such as: (i) the actors who should be involved; (ii) its recent approval as an international mechanism under the Kyoto Protocol (approved at COP 19, Warsaw 2013); (iii) no regulated market for the implementation of REDD+; therefore, (iv) no demand for forest carbon credits; and, finally, (v) the participating countries' institutional capacity and solid governance structures for REDD+'s implementation. Until 2013, REDD+ pilot projects lacked financial resources. Because of these uncertainties, I asked how ready Guatemala is to implement REDD+ successfully. Further, how feasible it is for REDD+ to provide the 'win-win-win' outcomes often claimed by its proponents in the context of non-Annex I countries like Guatemala?

To do so, I analysed the emergence and development of REDD+ with an emphasis on the social and environmental safeguards (Cancun Agreement, 2010) within the context of the theory of PES schemes to understand how the implementation of this global mechanism should work. From this, I identified a series of conditions and elements that are necessary. These included, but are not limited to: (i) institutional capacity at the local and national levels, (ii) inclusive, full and efficient participation and decision making arrangements; (iii) a mechanism for the fair and equitable distribution of social benefits; and (iv) suitable environmental characteristics. I also identified key issues that, according to my analysis, influenced the evolution of REDD+ and turned it into a complex, multi-actor, multi-level, multi-outcome PES scheme. These key issues helped elucidate what is needed to efficiently design and implement REDD+ in the context of non-Annex I countries like Guatemala. To achieve this, I proposed the development of some elements and the implementation of certain conditions needed at the local and national levels for REDD+'s implementation. However, because the presence of these conditions and elements in non-Annex I countries like Guatemala are unusual, I consider the establishment of an independent agency, with participation from the key players, and through which the national REDD+ framework of Guatemala should be developed.

To test my ideas for the effective implementation of REDD+, I evaluated seven PES schemes (including REDD+) in different countries in Latin America and looked at whether these conditions and elements existed there. I also evaluated the PES criteria proposed by Wunder (2005) in relation to the actors involved in these schemes and also the governance without government proposal of Rosenau (1992). The results of these analyses guided my

[483] Pokorny, B., Scholz, I., & DeJong, W. (2013). REDD+ for the poor or the poor for REDD+? About the limitations of environmental policies in the Amazon and the potential of achieving environmental goals through pro-poor policies. *Ecology and Society, 18*(2), 1-16.

assessment of REDD+ pilot projects in Guatemala. It is important to mention that the information of REDD+ pilot projects in Guatemala was obtained through interviews made during the field trip late in 2011 and, by then, all projects were focused on the development of REDD+ schemes. The findings in this research were based on the interviews made at that time. However, at the end of 2013 and the beginning of 2014, through informal conversations with the project managers I found that two of the four projects had changed to the voluntary market because of the uncertainties of REDD+ at the international level. The analysis of REDD+ as a regulated mechanism, and how REDD+ pilot projects turn towards the voluntary market, could be used for further research. This current research could have been updated with another set of interviews in order to understand the evolution, or not, of the REDD+ projects. However, the limitations of time and money restricted the possibility of more interviews. It is recommended that in future research, more interviews are undertaken in the final stage of the projects in order to understand what the weaknesses these projects faced during their implementation were.

Having that in mind, this chapter discusses the findings of all initiatives studied in this research and their empirical contribution to PES and governance theory, and the practical recommendations for REDD+ in order to attain the expected positive social and environmental outcomes. In conclusion, it finds that Guatemala is not ready for REDD+ because it is still using the governance as usual (GAU) approach. My proposal considers a broader scope with a governance outside government structure that will participate at the local, national and international levels.

This chapter is organized as follows: Section 2 discusses the empirical contribution to PES and governance theory. Section 3 debates the empirical contribution of this research to REDD+ theory. Section 4 suggests practical recommendations for REDD+. Section 5 discusses REDD+ at the international level and its influence at national level and Section 6 presents the conclusions of this research.

8.2 Empirical contribution to PES and governance theory

I want to start this section by quoting Hamlet "*There are more things in heaven and earth, Horatio, than are dreamt of in your philosophy*". Similarly, there are more challenges in Guatemala than are dreamt of in PES philosophy; at the same time Guatemala is less advanced than expected in their REDD+ projects.

This section will discuss how the theory of REDD+ as a PES scheme differs from the experiences of different Latin America case studies and REDD+ pilot projects in Guatemala.

The theory of PES schemes and REDD+ offers a variety of ideas, suggestions and recommendations for how non-Annex I countries should develop and implement REDD+ schemes. However, most of these ideas are based on assumptions that have not considered factors such as the socio-cultural, political, economic and institutional context of these countries, generating a 'gap' of information. Latin American case studies and REDD+ pilot projects of Guatemala have provided valuable evidence about this 'gap' between theory and practice. In this section, I will

discuss the gaps that I found between PES and REDD+ theory and the initiatives on the ground from Latin America and Guatemala. I will also present their contribution to these theories through empirical analysis.

8.2.1 Wunder's criteria of buyers and sellers of ES vs many more actors

This section presents an example in which there are more challenges on the ground in Guatemala, than are dreamt of in PES theory.

Considering Wunder's criteria of actors as buyers and sellers of ES, and using this criteria within REDD+ schemes, I found that buyers of the ES are Annex I countries that need to comply with their commitment to reduce GHG under the Kyoto Protocol by offsetting the emissions they cannot mitigate; and sellers are non-Annex I countries who are trading their emission reductions from deforestation and forest degradation as ES. However, when analysing REDD+ pilot projects in Guatemala I found that the four projects involved many more actors than those considered in PES theory or even in the emerging literature in relation to REDD+ schemes. Moreover, these 'other' actors participate at local, national and international levels. The main problem with the participation of many actors at different levels lies in the fact that everybody wants to push forward their own interests, complicating the design and implementation of these projects.

Participation starts with the project itself, at the local level. The actors involved in this stage include: (i) project developers or intermediaries which, in some cases, are NGOs who are in charge of developing and implementing the projects because they are co-administrators of the protected area. These NGOs charge administrative fees for these activities; (ii) national or international consultants or experts working on the development of the project design document, which requires highly technical and expensive carbon measurements to be made in order to quantify the exact carbon storage in the forest. (iii) verifiers who assess and verify the carbon storage that has been reported on the documents; and (iv) international project registers where projects are promoted for sale on the international market. All of these actors impose costs that need to be added to the project itself, as forest-dependent communities cannot afford these expenses. Because of this, some pilot projects like FUNDAECO and LFFL, have committed their carbon credits to organizations or companies that have sponsored the development and implementation of the REDD+ pilot projects, which adds yet another player to the game.

This type of sponsorship has advantages and disadvantages. On the one hand, projects are developed and carbon credits are sold, which means that the projects have the assurance of the transaction and the associated economic incentives. On the other hand, this transaction gives buyers control over the projects, which could be unsafe for the project, for the area and for forest communities. For example, in the case of FUNDAECO, the project has been developed under an agreement of 'confidentiality' between the buyer and the project developer. With this agreement, the project developer cannot share any information, not even for the development of this research and, I assume, not for forest-dependent communities either. The lack of knowledge about who is involved in a project and what are its expectations from the area are issues everyone should be concerned about.

There are also REDD+ actors who are involved at the national level: (i) some NGOs are associated with the government as these projects are implemented in protected areas that the State owns; (ii) international and national NGOs also participate in conjunction with the private sector when trying to implement REDD+ initiatives on their private land; and (iii) academia, by developing research to analyse the feasibility, advantages, disadvantages and other issues of REDD+ that are then used to persuade the development of policies. In some cases, the national level is also influenced by "external experts" who are international consultants developing programmes at the national level and third parties like registers and verifiers. The actors at the international level are: (i) Annex I and non-Annex I countries; (ii) the various programmes developed by the World Bank, such as the FCPF and FIP; and (iii) international validators and registers of carbon credits.

Considering the simple description of the actors involved in Wunder's criteria and the ones I identified in the initiatives, it is obvious that when implementing REDD+ on the ground, things get complicated. The 'gap' of information between these two is really large and the influence that every actor has over the design and implementation of REDD+ pilot projects is complex. In order to address this complexity, the independent entity I proposed in Chapter 5 develops an agency in which the participating actors are those directly involved in REDD+ schemes and the also agency proposes a mechanism for participation at the local, national and international levels.

All the above suggests two things: (i) there is a need to reconsider Wunder's criteria for PES schemes and also to adjust the REDD+ literature in relation to actors involved in REDD+; (ii) there is a need to actively involve forest communities in the process of the design of REDD+ schemes, as the decisions involved affect their survival and also because their willingness to participate could determine the success or failure of projects like REDD+.

It is important to reconsider Wunder's criteria for PES schemes as he only describes buyers and sellers of ES. Initiatives have demonstrated the participation of more actors and, when analysing REDD+ schemes, even more actors are involved because of its 'international' scope. For that reason, PES theory should consider the voluntary participation of sellers of ES, the involvement of project developers, third parties (validators, verifiers and registers) and the buyers of the ES. PES theory should be rethought as the truth is that few PES around the world have, in fact, been developed and implemented by the sellers of the ES, as seen in the case studies in Latin America. In most cases, project developers are NGOs who design and implement the scheme and charge a fee for the administration of the projects. This is an example of where there are more things on the ground than dreamt of in REDD+ philosophy or, to be more exact, of what Wunder proposed with the actors involved.

8.2.2 Governance outside government

According to Rosenau (1992), government is not synonymous with governance[484] ; rather, governance consists of activities sustained by common goals that might derive from legal and formally prescribed responsibilities. These goals do not necessarily rely on police power to overcome defiance and attain compliance[485]. Rosenau explained that governance embraces government institutions, civil society organizations, the private sector, and others within its competence, to satisfy their interests, needs and fulfil their wants[486]. In other words, the author proposed a 'governance without government' approach. When analysing the REDD+ literature, it could be interpreted that REDD+ is seeking this kind of governance as its literature promotes, suggests and recommends coordination and participation by the decision making capacities of many different actors, especially of forest communities (Cancun Agreement).

Indeed, REDD+'s literature often proposed the development and implementation of effective governance arrangements[487] by addressing cross-scale dynamics in space and over time in order to design and implement the scheme. Through a governance approach, actors with different capacities and interests could contribute to the design and implementation of REDD+ schemes and tackle governments' weaknesses that have been, until now, a major obstacle for international investors. In applying this idea of governance to Guatemala, I could say that the concept consists of two different aspects: (i) different actors involved with decision making capacities; and (ii) towards a common goal, which is the implementation of REDD+ scheme.

When analysing REDD+ pilot projects in Guatemala, I found that neither of these two aspects was present. In other words, there were no sign of the construction of a national forest governance structure, even though the word 'governance' was constantly mentioned during the interviews with the actors, who had a misguided idea of its definition.

Regarding participation, the initial aspect of governance, I found that Guatemala has a centrist approach in which the government has the only, and last, word. For example, during the development of the readiness project proposal (R-PP), the government led several meetings with different actors from the private sector, NGOs, academia and indigenous forest communities' organizations. Throughout these meetings, MARN presented the coordination structure based on a top-down approach for the development of the ENRD, as explained in Chapter 6. This structure is completely vertical and consists of three levels of coordination in which two were mainly initiated by government institutions and they were the only ones with decision making capacity. These levels are the technical coordination and higher level as named in the proposal. The third level of this proposed structure is called the national body for consultation and participation, and it is in this level there REDD+ actors could express their ideas, requests and

[484] Rosenau, J. N. (1992). Governance, order and change in world politics. In J. N. Rosenau & E.-O. Czempiel (Eds.), *Governance without government: Order and change in World Politics*. Cambridge, UK: Cambridge University Press (p.4)
[485] ibid. (p.4)
[486] ibid. (p.4)
[487] Vatn, A., & Vedeld, P. O. (2013). National governance structures for REDD+. *Global Environmental Change, 23*(2), 422-432. (p.422)

other topics related to REDD+, to be considered by the other two levels. This suggests that the government is 'socializing' the implementation of the scheme, which is not the same as developing a consultation process. As explained before, governance structures do not necessarily rely on governmental power to attain compliance. However, the top-down structure proposed for the development of the ENRD is a power hierarchy that forces the process of implementation.

Even though Guatemala is developing the ENRD in a top-down approach, the country is trying to guide REDD+ actions. It is 'trying' because when political changes occur, processes stop or are delayed by the new political administration. This suggests that a centrist government will lack of the required continuity. If REDD+ pilot projects do not have the necessary continuity, it will affect the sellers of the ES and also the credibility of the country at the international level. However, this is not new, as the country has experienced discontinuity with several projects over several decades within programmes, strategies and, even, policies and that is why Annex I countries now require strong governance structures, which will guarantee that their money is well invested.

So, considering the above, even though the REDD+ literature and Cancun Agreement have highlighted the need for the implementation of transparent and effective national forest governance structures, the reality is that this is not happening on the ground. However, it is not just the non-Annex I countries' decision but the UNREDD Programme as well. For example, the decision to channel REDD+ payments through national governments has established this Central American state as a key player in REDD+[488]. Thus, on the one hand, channelling funds just through governments and, on the other, reinforcing the necessity for the construction of solid governance structures, knowing that non-Annex I countries are marked by corrupt acts, as mentioned in Chapter 2 mentioned. Even though this decision was changed with the Warsaw Framework for REDD+ (2013) in which countries could now designate a national REDD+ entity or focal point to serve as a liaison for REDD+ issues, even the management of funds, it will be difficult for governments to implement this as it means delegating power. For that reason, it has been proposed that Guatemala needs to expand its governance structure outside government.

In terms of the second aspect of governance, the common goal, this was also found to be absent when analysing Guatemala. REDD+ actors had different goals: some were focusing on the economic benefits that the scheme could bring for forest management or social rural development while others were thinking of REDD+ as a means of getting land titles, while others were focused on the conservation of forests and their biodiversity. Even for third parties at the national and international levels, REDD+ was seen as an 'adequate' income for the development of technical documents and procedures of validation, verification and registration of projects. I also found that this 'common goal' varies every four years and sometimes more often than that, when political changes occur within the same political administration. Chapter 6 has shown that there is little doubt that the government of Guatemala has taken important steps by developing laws, policies and strategies for the management of climate change issues. However, practice shows that every political party has its own methods of how to address environmental problems.

[488] Phelps, J., Webb, E., & Agrawal, A. (2010). Does REDD+ threaten to recentralize forest governance? *Science, 328*, 312-313.

What I am trying to explain by this is that the political party of 2007-2011 launched the ICCC in which high level authorities from the president to ministers were in charge of discussing and proposing actions to address climate change. However, this commission was cancelled because the following political party decided that they needed another kind of entity which, until today, (2014) has not been launched. This suggests that the common goal was there; however, the method to reach the goal was what varied with each government. For all these reasons it is necessary to build a common goal for the development of REDD+ as a national scheme, but that common goal should focus on the main reasons for the development and implementation of REDD+ that are related to the achievement of the 'win-win-win' outcomes.

From the various analyses I found that REDD+ expects governance and Guatemala is implementing government. Governance structures have been discussed since REDD+ was initially proposed. The reason for its discussion and enforcement lies in the knowledge that many governments in non-Annex I countries are immersed in corruption[489], have weak institutional capacity[490], weak law enforcement[491] and a lack of transparency and efficiency in the management of funds[492].

Initiatives have demonstrated that most of the driving forces of REDD+ occur outside government; therefore, it is important to create a governance structure away from this sphere. But it is naïve to think that it could be undertaken without the government involvement. For that reason, my proposal considers a 'governance outside government' but with the government as part of it. Rosenau (1992) proposed a governance without government structure (Chapter 3); moreover this could possibly be applied in countries with different socio-cultural, political and economic contexts. The idea of a governance outside government is what applies in countries like Guatemala and REDD+ provides this opportunity through the Warsaw Framework for REDD+.

This governance structure outside government is the S&EA, which will guide the necessary processes for the design and implementation of REDD+ schemes. The participation of different actors from different sectors within the S&EA, will allow the continuity of processes and, at the same time, will work towards the common goal that is required for successful 'win-win-win' outcomes. Indeed, I found that governance outside government is the 'backbone component' that will allow things to happen, or not, in the whole multi-level governance structure I am proposing.

These findings of gaps between theory and reality on the ground have implications for PES theory, especially for governance. The theory needs to be more expansive in consideration of what is on the ground. This is an example of where Guatemala is less advanced than expected in REDD+ theory. This includes the actors, the nature of their

[489] Mathews, A. (2014). Scandals, audits and fictions: Linking climate change to Mexican forests. *Social Studies of Science, 44*(1), 82-108.
[490] UNDP, UNEP, & FAO. (2011). The UN-REDD Programme Strategy 2011-2015. In U. a. F. UNDP (Ed.): UNDP, UNEP and FAO. (p. 14)
[491] Korhonen-Kurki, K., Sehring, J., Brockhaus, M., & Di-Gregorio, M. (2013). Enabling factors for establishing REDD+ in a context of weak governance. *Climate Policy, 14*(2).
[492] Barr, C., Dermawan, A., Purnomo, H., & Komarudin, H. (2009) Readiness for REDD. Financial governance and lessons from Indonesia's Reforestation Fund (RF). *Vol. 20. InfoBrief*. Bogor, Indonesia: Center for International Forestry Research (CIFOR). (p.4)

involvement and processes of decision making and implementation. At the same time, REDD+ literature needs to lower its expectations of what non-Annex I countries can give and who should be involved, and not just focus actions through the government; for example, channelling of funds. Experiences has shown that there is a need for innovative governance structures like the S&EA. Countries, especially non-Annex I, need to do things differently if they want to accomplish different results and doing things differently means involving different actions at the national level. The following section will discuss the empirical contribution to REDD+ theory.

8.3 Empirial contribution to REDD+ theory

This section will discuss few things in Guatemala that will prove that there are many more expectations proposed in REDD+ theory, that those that really exists on the ground.

8.3.1 REDD+ as a cheap mechanism vs a high-priced project

REDD+ was initially proposed as a cheap mitigation strategy[493]; but this assumption depends on which side of the lens (buyer's or seller's) is being watched. For buyers of the ES, it means a cheap way reduce GHG to comply with the Kyoto Protocol. Even before REDD+'s approval in 2013, many Annex I countries started compensating for their emissions by buying forest carbon credits for REDD+ pilot projects in non-Annex I countries. Thus, for buyers, REDD+ has been cheaper than investing in better infrastructure to reduce GHG emissions. Alternatively, for sellers of the ES, the original idea was a mechanism that could allow non-Annex I countries to contribute to GHG reduction. Chapter 2 described the three mechanisms under the Kyoto Protocol and the disadvantages for non-Annex I countries due to the high costs of implementation. However, REDD+ has turned out to be expensive because of the technical requirements needed, including: (i) development of the PDD; (ii) process of verification; and (iii) registration of the project. The implications of this are that forest communities need to find other financial sources, like donors, to implement the scheme, as they cannot afford this. This means that, for the seller's lens, REDD+ is very expensive. Hence, sellers might not sign up and so could miss possible benefits.

It is important to remember that REDD+ pilot projects in Guatemala have been implemented by NGOs who are co-administrators of protected areas and they have already agreed that these incentives will be used for forest management activities. In the case of FUNDAECO, it is not known who the buyer is and what kind of activities it is trying to offset. But it is known that this company already owns the carbon credits and has paid for the development of all documents required; this proves that REDD+ is cheaper from the buyer's lens. In the same context, the nightmare project of NKMCAP is a good example of a cheap mechanism trying to offset against a high-priced investment, to change activities in order to reduce emissions of GHG.

Section 8.2.1 discussed the many actors involved in REDD+ projects at the different levels. But it is not their technical capacity that is the main concern, but the high costs for their development of these activities. REDD+ pilot projects in non-Annex I countries need to be cheap in order to be implemented by forest communities. Chapter 2

[493] Phelps, J., Webb, E., & Agrawal, A. (2010). Does REDD+ threaten to recentralize forest governance? *Science, 328*, 312-313. (p.312)

has shown that the implementation of a REDD+ project takes around two years. In some cases, buyers of the ES have asked for performance-based projects. In other words, the project needs to initially undertake store carbon storage before receiving the payment for the service. This means that in these two years forest communities will not receive benefits and will not be able to use the forest resources. This complicates the process as these forest-dependent communities need economic alternatives to provide for their needs. This is an example of how Guatemala is less ready than expected in relations to REDD+ theory. On the one hand, REDD+ should simplify its processes in order to be economically achievable for forest-dependent communities and, on the other hand, the price of carbon storage should be compared against the offsetting industry buying this service in order to consider the *principle of common but differentiated responsibilities (*Chapter 5).

8.3.2 REDD+ implies a national framework with the assumption of continuity and stability

The implementation of REDD+ requires a national framework under which REDD+ pilot projects need to be developed. Proponents of REDD+ have assumed that, with the development of the national framework, countries will comply with their national and international commitments in both the short and long terms. But, in reality, this is very difficult to achieve because some non-Annex I countries, like Guatemala, have difficulties in finding stability when the political administration changes. Often, the guidance established within the national framework during one political administration is more than likely to be changed by the following one. This is because every new political administration comes with new ideologies even if they are from the same political party; with new policies, programmes, strategies and, even, new staff. This creates discontinuities and delays in processes no matter what international commitments the country has signed.

I found that this discontinuity is present every four years and even during the same political administration. Many projects, programmes, policies and strategies are reformed or ended, as in the case of the ICCC that was functional just for one political term (2007-2011) and then dissolved in 2012. Guatemala needs continuity in order to achieve the expected results. For that reason, I consider that the development of the ENRD by the current political administration (2012-2015) will not be functional in the following administration. The lack of continuity has implications at various levels: (i) at the local, it generates a feeling of rejection because every four years new projects are presented with new benefits and the ones already implemented are cancelled. So, communities do not trust the new projects; (ii) at the national, the discontinuity generates frustration when efforts for the design and implementation of projects, programmes, policies and strategies are discarded 'just because'; and it generates delays in practices, which generates frustration by the project developers towards the government; and (iii) at the international, as non-Annex I countries like Guatemala are being seen, and still will be seen, as not committed to their environmental goals; and (iv) this could contribute to the lack of credibility these countries already have, which affects and interferes with possible international donors and investors.

In this regard, REDD+ literature needs to broaden its complexity and reduce expectations about development and stability as things are more complicated on the ground than in theory. This is especially true in non-Annex I countries.

My proposal of an independent agency will help fill these gaps between theoretical expectations and complicated realities. It will include various actors participating together at different levels within a structure of governance outside government. The participation of every actor -- from the private sector, academia, NGOs, forest community organizations and development councils -- will guarantee the stability and continuity of the REDD+ scheme and its projects. This agency will not be affected by changes in government, although the government will be included in the agency.

Some countries in Latin America, as analysed in Chapter 4, have independent entities for the implementation of PES schemes. These entities have survived political changes and, at the international level, have received recognition and gained credibility for their social and environmental achievements. The innovative element that the S&EA has is the multi-level participation structure, which will allow for its participation at international, national and local levels.

8.4 Practical recommendations for REDD+

The process of the design and implementation of REDD+ needs to be different from the processes of the design of many other projects Guatemala has tried to implement that have failed. This section will discuss these different ways of doing something with the aim of achieving different results.

8.4.1 Local involvement vs no participation

The theory of PES described in Chapter 3 emphasized the importance of local involvement when designing and implementing PES projects[494]. Even more so, the negotiations of REDD+ schemes have highlighted several times the need for local involvement and participation processes, such as design, decisions about benefits, and forest management, many of which have been agreed on in the Cancun Agreement and the Copenhagen Accord. The participation of these forest communities in different projects has offered lessons and many projects have tried to emulate them without success. So, why has participation by these communities been successful in some projects and not in others? The theory suggests the need for active participation, bottom-up approaches,[495] and the establishment of decision making arrangements as a way to obtain positive results for these schemes[496]. However,

[494] Schroeder, H., & McDermott, C. (2014). Beyond carbon: Enabling justice and equity in REDD+ across levels of governance. *Ecology and Society, 19*(1).

[495] Gomes, R., Bone, S., Cunha, M., Costa, A., Moreira, P., Meneses-Filho, L., . . . Moutinho, P. (2010). Exploring the bottom-up generation of REDD+ policy by forest dependent peoples. *Policy Matters, 17*, 161-168. (p. 166)

[496] Reinecke, S., Pistorius, T., & Pregernig, M. (2014). UNFCCC and the REDD+ Partnership from a networked governance perspective. *Environmental Science & Policy, 35*, 30-39. (p.32)

the participation of these forest communities has been variable in the Latin American case studies and in REDD+ pilot projects in Guatemala.

I found that the participation in REDD+ pilot projects in Guatemala has yielded different levels of success, I also found that this participation is linked with who the project developers are. In the case of dream projects like GuateCarbon and Fundalachúa, both projects have been developed by forest communities' leaders and forest organizations were deeply involved in their design and implementation. In the former, the project is being coordinated by ACOFOP, a community organization who has been managing forest concessions for more than 25 years. Through this experience, project developers have been given the necessary knowledge of what to do and how to develop participation within their communities. The latter has been well developed by forest community organizations. But even if they do not have the same experience as ACOFOP, they have developed consultation processes and the forest communities have been part of the development of the scheme.

In contrast, based on past experience, LFFL has not implemented open participation within its communities. LFFL has mentioned that involving forest communities could jeopardize its implementation due to the uncertainty about REDD+ benefits. Project developers also mentioned that the involvement of communities could raise expectations of benefits that, possibly, could never eventuate; the topic is highly technical and it is difficult to explain as many of these forest-dependent communities lack formal education.

It is important to mention that even though the theory of PES schemes and REDD+ negotiations have stressed the significance of forest communities' participation in different processes of REDD+, I believe that this participation relies on the various socio-cultural factors of each country. In multi-cultural countries like Guatemala, forest communities differ from one region to another[497]; and one method could work for one region but not for another. This relates to different reasons including: communal capacities with different levels of organization, development, levels of education, different types of connections with forests and natural resources[498], access to information, and technical assistance provided to build knowledge and understanding. In addition to these socio-cultural factors, history has also a word to say. Forest-dependent communities in countries like Guatemala have suffered violent colonisations[499], wars, land expropriation[500], and also scam projects[501] where many benefits have been offered in exchange for the extraction of natural resources (i.e. mining and logging)[502]. Because of these past experiences, some forest communities are sceptical about the whole idea of REDD+ and of projects where no information is shared. When there is a lack of information, forest communities are vulnerable to scams, as seen in Chapter 4 with carbon cowboys, and that could lead to the rejection of future real projects.

[497] UN. (2010) Gender and indigenous peoples: overview. *Briefing Note N. 1* (pp. 1-5). New York, USA: United Nations. (p.3)
[498] Feiring, B. (2013). Indigenous peple's rights to land, territories, and resources. Rome: International Land Coalition (ILC). (p.15)
[499] Larson, A. M., Brockhaus, M., & Sunderlin, W. (2012). Tenure matters in REDD+. Lessons from the field. In A. Angelsen, M. Brockhaus, W. Sunderlin & L. Verchot (Eds.), *Analysing REDD+. Challenges and choices*. Bogor, Indonesia: CIFOR (p. 154)
[500] Ibid.(p.678)
[501] ibid . (p.679)
[502] Griffiths, T. (2007). Seeing RED? Avoided deforestation and the rights of indigenous peoples and local communities. (pp. 32): Forest Peoples Programme. (p.7)

Even though these differences are present in REDD+ pilot projects in Guatemala, participation with decision-making arrangements for forest communities and groups is necessary, valuable and important at any stage of the development of REDD+: (i) important - because it is their right to be involved; (ii) valuable - because forest-dependent communities possess traditional knowledge regarding forest management, that has been used for centuries and that could still be used; and (iii) necessary - because as forest-dependent communities they depend on forest resources for their survival and their participation means that they will accept keeping the forests standing[503]. Their exclusion in the design process, as seen in the Latin American case studies in Chapter 4, could jeopardize the successful implementation of REDD+ in four aspects, for example : (i) rejection of the project and the implementation of forest activities; (ii) suspicion about the economic incentives, because the literature on REDD+ suggests it will be received when, in real life, this incentive can be used for other activities; (iii) mistrust towards project developers who had been co-administering these protected areas for several years, which could affect other types of activities; and (iv) threatening the permanence of the project with logging the forest or leakage. For this reason, the full, inclusive and efficient participation of these forest communities at the local level is necessary.

However, not just the local level needs to be considered. The participation of forest-dependent communities in national processes is also important to reflect on as it is at this level that REDD+ policies and frameworks will be implemented. These instruments will guide actions at the local level and, if local needs are ignored within these national frameworks, this could develop frustration and rejection towards these national plans. So, open and active participation of the forest communities should also be considered for national processes.

It is important to have a flexible national REDD+ structure that allows the processes of design and implementation to be according the characteristics of each region. In relation to other actors, I found that the lack of a national REDD+ framework and, even, of an effective, efficient and stable national authority, has promoted inefficiency in relation to participation and involvement by other actors. This weakness has promoted that the development of individual actions as in the case of GAO and the sales of carbon credit in the voluntary market and also of initiatives like LFFL, who initially focused on REDD+ (2011) have turned their sights to the voluntary market (2014) due to the lack of national guidance and the bureaucratic top-down approach for the development of the national REDD+ strategy.

8.4.2 Protection vs expropriation of rights

The protection of rights is a topic that has been highlighted in most COPs of UNFCCC when discussing REDD+, as it relates to the survival of forest-dependent communities. The protection of forest communities' rights in REDD+ has three dimensions: land tenure, land use and carbon credits. The last one has been recently added. Only a few

[503] Wallbot, L. (2014). Indigenous Peoples in UN REDD+ negotiations: "Importing power" and lobbying for rights through discursive interplay management. *Ecology and Society, 19*(1), 21.

cases, like Socio Bosque and Scolel Te, have succeeded in providing security in land tenure by providing land titles. A few more have been assured of land use rights by providing areas to be used for agricultural activities, such as Madre de Dios in Peru. Still more projects have discussed, but without agreement, the distribution of carbon rights.

In relation to forest communities' rights to land, the reality for non-Annex I countries is that the processes and technical aspects for developing or reforming cadastral, demarcating and titling land are very expensive and time consuming. Many of these countries cannot afford a process like this. In the case of countries where this has happened, political change can stop the processes. However, it is important to guarantee that forest communities will stay on the land as a way to respect their rights (even without a formal title). The case of NKMCAP has shown how communities have been expropriated of their lands because of private arrangements between the NGO that co-administered the area, the government and the private company that paid for the expansion of the park. In contrast, Scolel Te provided of a letter of agreement that guaranteed forest communities that they will stay in control of their land.

For Guatemala's REDD+ pilot projects, I found that the protection of rights (mainly land tenure) was not happening, because projects were been developed inside protected areas which, by law, were owned by the State. In relation to land use, project developers have offered agricultural alternatives that are outside logging areas while, with carbon rights, there have been arguments between project developers and government institutions in relation to the percentage that each of them deserves. Bearing that in mind, I consider that carbon rights should be proportional to the activities that forest communities, project developers and governmental offices realise within the project area. Governments cannot be left out as, by law, they are the administrators of Guatemala's protected areas. For that reason, governance outside government considers the government's participation but in a different and more efficient way.

8.4.3 Mechanism for a fair and equitable distribution of social benefits vs no benefits at all

REDD+, as analysed in Chapters 2 and 3, has been promoted as a mechanism in which economic benefits will be attained in order to promote social and rural development[504] for forest-dependent communities. Some authors have mentioned that REDD+ could reduce or, even, alleviate poverty in project areas[505] . Because of these multiple benefits, the literature in Chapter 3 also mentions the need to develop and implement a system for the fair and equitable distribution of benefits.

In REDD+ pilot projects in Guatemala, project developers have not considered the development of a system for the fair and equitable distribution of benefits, because they do not aim to receive significant amounts of money. The

[504] Lederer, M. (2012). REDD+ governance. *WIREs Clim Change, 3*, 107-113 (p.107)
[505] Barbier, E. (2014). Climate Change mitigation policies and poverty. *WIREs Clim Change*.

reasons for not believing in this relies on the fact that: (i) the process of developing a forest carbon project is highly expensive; (ii) REDD+ has not been approved as an international mechanism yet; and (iii) because of that, the international regulated market is still poor and with no demand for carbon storage as an ES. In fact, the literature mentioned in Chapter 5, about an overflow of forest carbon projects in the international market. For that reason, project developers in Guatemala do not see REDD+ as a mechanism that will significantly contribute to the rural development of these forest-dependent communities.

In that regard and, bearing in mind the uncertainties around REDD+, PES projects (including REDD+) should be analysed and include more ES that could attract interest at the international level. Chapter 3 described other PES projects, such as biodiversity, conservation, watershed protection or landscape beauty. These ES could be bundled into a package and, by doing so; it is more likely to gain the interest of international ES buyers.

8.4.4 Implications for REDD+ in Guatemala

Until now, REDD+ has been developed under the assumption that non-Annex I countries will design and implement the schemes efficiently to achieve 'win-win-win' outcomes. But there are more things in Guatemala than are dreamt of in REDD+ philosophy. For example, it has been assumed that countries will develop inclusive, full and efficient participation in forest communities and for other forest stakeholders. However, this has not happened in REDD+ pilot projects in Guatemala.

Also, the actors involved have been assumed to be just buyers and sellers when, in real life, the projects involved many other actors and some of them have been developing very costly activities. PES theory also assumed a movement from government to governance, which has not happened either. Guatemala is still developing a top-down approach with centrist decision-making arrangements that are influenced by political changeovers. If something new is not proposed and developed, it will always be influenced by this. This is the opposite of a shift from government to governance. So, considering all these disconnections we return to the question: can REDD+ in Guatemala provide the expected and, indeed, assumed, social and environmental outcomes dreamt of in its philosophy?

Indeed, REDD+ in Guatemala is very different from what REDD+ envisioned. In other words, it is not feasible for REDD+ to provide positive social and environmental benefits ('win-win-win' outcomes) in the present context of countries like Guatemala.

So, one of two things needs to change; either: (i) Guatemala should propose, at the international level, an alternative REDD+ framework that adapts to the country's context; or (ii) Guatemala needs to change the way it has been managing its natural resources. It is difficult to promote a change for REDD+ at the international level, even though more changes are expected to appear, until it is formally approved by all the signatory countries of the UNFCCC and, possibly, also the Kyoto Protocol 2. Therefore, the only viable option is to change the way Guatemala has

been managing its natural resources. In other words, the S&EA has the potential to change the nightmare into a dream.

As explained in Chapter 4, the agency comprising the main REDD+ stakeholders will promote inclusive, full and efficient participation. The agency will act as an independent body that will promote educational workshops, training programmes and informative sessions to spread knowledge about REDD+ and other ES schemes. At the same time, the agency will facilitate processes for the implementation of more REDD+ projects, as there will now be more understanding from forest communities about the schemes. This agency will implement the mechanisms for a fair and equitable distribution of social benefits derived from REDD+ schemes and will act as an intermediary between the sellers of the ES and the buyers at the national or international levels.

But, who is going to implement this agency? The idea is that actors like NGOs, the private sector, forest communities' organizations and academia develop the foundation of this agency through meetings and discussions. The involvement of the government and the development councils should be considered at the end, as it is important to first decide on a solid mission, its aims, institutional roles, functions and such like. Together, these actors could search for international donors who could sponsor the implementation of this agency. In addition to this economic support, the agency could be financially supported by a charge of administration fees, as seen in other independent agencies, such as FONAFIFO in Costa Rica. This attractive initiative will demonstrate the country's commitment to strengthening its governance structure. It will also consider issues that have been problematic, such as: (i) forest communities' participation; (ii) mechanisms for a fair and equitable distribution of benefits; (iii) political support; (iv) transparency and accountability provisions; and (v) institutional capacity.

8.5 REDD+ at the international level and its influence at the national level

Chapter 7 has provided an update of REDD+ at the international level. The Warsaw Framework for REDD+ was approved in December 2013 and gave life to the REDD+ scheme. Apart from the technical issues that this framework addressed, such as MRV, reference emission levels and national forest monitoring systems; it also addressed non-technical issues. These non-technical issues are related to safeguards, drivers of deforestation and institutional arrangements for REDD+. The following sections will discuss the non-technical issues.

8.5.1 Implementation of social and environmental safeguards

The social and environmental safeguards has been discussed often, as it can be seen in Chapter 2. Each year, the topic is discussed within the UNFCCC negotiations, but no tangible results have been developed, and the Warsaw Framework for REDD+ is no exception as it has, once again, mentioned the importance of their implementation within REDD+ activities. The main argument of discussion is how this is going to be monitored in order to guarantee the implementation of these seven safeguards by governments and project developers.

Until now, the implementation has depended on each non-Annex I country's capacity, knowledge and understanding of the social and environmental safeguards. In the Latin American case studies, the dream projects have implemented some of these safeguards, such as, respect for cultural and spiritual knowledge and participation by forest-dependent communities. Other safeguards related to national processes, such as the development of sound forest governance structures or property rights, have not been implemented. In the same context, some REDD+ pilot projects in Guatemala have implemented the safeguards related to the projects *per se*, like forest-dependent communities' participation and respect of cultural and traditional knowledge. However, the safeguards related to the implementation of national processes have not been implemented in any of the initiatives studied in this research.

Chapter 5 highlighted the importance of the development and implementation of the S&EA as a means by which the social and environmental safeguards could be developed and implemented. Since REDD+ was launched it has highlighted the importance of the construction of solid forest governance structures. However, none of the participating countries has implemented this structure through all this time. For that reason, it is important to develop the S&EA as it could be considered as a branch for the national forest governance structure in which the safeguards could be implemented.

8.5.2 Drivers of deforestation

In addition to all the outcomes and expectations that have been put on REDD+, it is also expected that this mechanism could address the drivers of deforestation. This demonstrates the many expectations of what REDD+ needs to accomplish, and here is where I emphasize Shakespeare's quote, "*There are more things in heaven and earth, than are dreamt in your philosophy".* Many more things are on the ground with non-Annex I countries, and if these things are not addressed it is impossible that REDD+ could achieve the expected 'win-win-win' outcomes as well as these other expectations.

Project developers could contemplate different mechanisms in their projects to address some of the drivers of deforestation within their project areas. However, this will only contribute at the project level. The drivers of deforestation need to be addressed at the national level and here is where the S&EA plays a role. The national processes of REDD+, guided by the S&EA could have an influence in: (i) the development of policies in other sectors like agriculture; (ii) contribute to law enforcement when illegal activities occur within REDD+ areas; and (iii) improvement of forest management skills and others.

8.5.3 Institutional arrangments

The institutional arrangements for REDD+, as approved within the Warsaw Framework of REDD+, opened a new opportunity for the establishment of the S&EA as it was agreed that the institutional arrangements for REDD+ envisions the setting up of a national REDD+ entity or focal point to manage REDD+. This means that countries have international approval for the establishment of entities like the S&EA. As explained in Chapter 3, non-Annex I countries have many weaknesses like fragile governance structures, weak law enforcement and weak institutional

capacity. However, now these weaknesses could be managed and enforced through the establishment of a governance outside government structure such as the S&EA.

The process for the implementation of REDD+, considering all the issues presented in the Warsaw Framework for REDD+, could be a dream if, and only if, the way it is implemented differs from the 'governance as usual (GAU)' approach. This GAU, is what governments have been doing 'as usual' for decades and that has already been shown not to work. For that reason, the development of S&EA is my proposal that could enhance the chances for the implementation of all these attributions that given to REDD+.

8.6 Conclusions

This research has shown that Guatemala is not yet ready, to implement REDD+ successfully and achieve the claimed 'win-win-win' outcomes. In other words, it could be said that REDD+ could become a nightmare for Guatemala, as for many other non-Annex I countries. This answered the first main research question. The GAU approach that the government has been implementing will give the same results it has given for many years, which meant that few positive social and environmental outcomes will be achieved. The Warsaw Framework for REDD+ opened a good opportunity for the implementation of new mechanisms to build innovative governance structures; in other words, this framework is the support that is needed, for the development of the S&EA in non-Annex I countries like Guatemala.

At the project level, REDD+ will not be able to deliver the expected 'win-win-win' outcomes if Guatemalan projects still depend on decisions from the government. All REDD+ pilot projects in Guatemala have been developed inside protected areas in which the final word has been was given by the government. In the cases of the two dream pilot projects things were more challenging, as it was difficult for these forest communities to approach higher authorities to explain their needs regarding forest carbon rights, which was a highly technical topic. For other project developers, like FUNDAECO and FDN, things were not very difficult because of their experiences in dealing with new political administrations and because of their alliance as co-administrators of protected areas. However, in all four cases, the distribution of carbon rights has not been agreed to. It will be interesting to discover what kind of arrangement FUNDAECO reached with the sponsor and what the conditions were for carbon rights.

However, all these independent arrangements with international sponsors, as in the case of LFFL and FUNDAECO, were the result of the lack of leadership and guidance from the national authority. Since REDD+ was launched and actions started in Guatemala, (from 2005-2014), the national authority for REDD+ has had three different Ministers of Environment, nine different vice-ministers and three different technical staff in charge of the implementation of REDD+ activities. This was because political changes occurred every four years, and these changes weakened the scheme's processes. The present political administration was promoting actions for the development of the ENRD; however, in two years' time, (January 2016) the county will face another political change which meant that this national process will stop until a new understanding was built or cancelled because the new government wanted

to take a different approach. In the worst case scenario, this ENRD will be one more document relegated to the bookshelves of the Ministry of Environment and Natural Resources, together with other environmental policies, strategies and national programmes of past administrations.

So, as Guatemala was not yet ready, so what will make it ready? Guatemala needed to shift to a new structure of 'governance outside government' if different and positive outcomes were expected. The GAU structure, such as the top-down, command-and-control approach has failed several times and with several different political administrations. Until today, the rates of deforestation and environmental degradation remained high. Since 1990, the so-called, Land of Trees has lost 17% of its forest area; and ever since 2000, the annual losses of forest cover were about 1.3%, which was significantly higher than the regional average[506]. This demonstrated the inefficiency of forest governance processes. The development and implementation of the S&EA is an opportunity for Guatemala to change the way it has been managing its forest resources, indeed, this agency will make Guatemala ready for REDD+. The S&EA contemplated many issues and with it the active participation of many actors from different sectors. This participation will provide for the continuity of processes, especially, in promising projects that could bring several social and environmental benefits, no matter what political changes occurred.

It is important to mention that S&EA has been proposed according to PES theory principles, assumptions and practices. However, as mentioned before, there are my doubts of how solid PES grounds are and if they actually deliver the claimed benefits. This could open the doors to new research as S&EA could be implemented in a future with new theory apart from PES theory.

The implementation of the agency at the national level will influence the development of the conditions at both national and local levels, and will also contribute to the construction of the elements of design of the scheme. Once this is developed and properly implemented, according to what was described in Chapter 5, REDD+ could start delivering positive outcomes. However, not everything depended on the national context or on the development of the agency as the international context also has a role to play. REDD+ will be fully active as soon as Annex I countries activated the international market as buyers, until then Guatemala could expect to achieve social and environmental outcomes from REDD+ pilot projects.

The local and national participation of different actors, such as forest-dependent communities, had been weak during all these years of implementation of REDD+ pilot projects in Guatemala. Some actors have been privileged, such as the private sector and NGOs, while perhaps the most important actors, the ones who depended on these resources have not. Considering this, the aim of the S&EA is that the participation as shown in the ladder of citizen power, with decision making arrangements for all REDD+ actors is fair and necessary. With this I mean that forest-dependent communities will have a fair representation within the agency, and they will also have an active participation at the local, national and international levels.

[506] Drakenberg, O. (2006). Poverty and environment in Guatemala (pp. 1-8). Goteborg, Sweden: Environmental Economics Unit, Department of Economics. (p.2)

Furthermore, the agency will be a way to strengthen all the weaknesses that non-Annex I countries have been categorized to have. Weaknesses like the lack of institutional capacity, inefficient distribution of benefits, weak governance structures, corruption and others are to be the agency's major strength. With the implementation of an agency with these characteristics, the country's reputation will change, and this will bring new opportunities. Through this agency, Guatemala could demonstrate its commitment towards an adequate environmental management, it will also be a method to assure the transparency and accountability provisions that the country is developing and will be a way to guarantee inclusive, full and efficient participation. This agency could attract international investors. However, this was just one side of the equation, as REDD+ also needs buyers of the ES. With the S&EA, REDD+ will be able to become a dream and deliver the 'win-win-win' outcomes; however, in order to do so, the international market needs to start, and start as soon as possible, in order to start receiving the benefits that many projects around the world are expecting.

This research proposes and S&EA agency as a mechanism for an effective way to achieve the benefits of REDD+ scheme. However, it is possible that for other non-Annex I countries, this agency is out of context and will not be the solution. In that regard, it is important to have an open mind for new ways or new structures that could contribute for an effective implementation.

Finally, it could be said that Guatemala will be ready for REDD+ as soon as the agency, as a governance structure outside government, is developed and implemented. Once this was done, its participation at the international level will attract buyers and, with that, the REDD+ market will begin. Indeed, this REDD+ market will contribute to the process of recovering the forest cover that Guatemala has lost and, once recovered, it will be once again called the Land of Trees.

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