Lazy lands or carbon sinks?

Frames and integration in the nexus of forest, agriculture and climate change

Cinthia Lucia Soto Golcher

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To my mom, Lucy, Jose and Clarissa

and in memory of my father, Chemi

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List of Abbreviations and acronyms

AFOLU	Agriculture, Forestry and Other Land Use
CBDR	Common but differentiated responsibilities
CfRN	Coalition for Rainforest Nations
CO2	Carbon Dioxide
COP	Conference of the Parties
CSA	Climate Smart Agriculture
CSL	Climate Smart Landscapes
CSO	Civil Society Organization
EPI	Environmental Policy Integration
FAO	Food and Agriculture Organization
FCPF	Forest Carbon Partnership Facility
FLEGT	Forest Law Enforcement, Governance and Trade
FSC	Forest Stewardship Council
GACSA	Global Alliance on Climate Smart Agriculture
GAG	Global agriculture governance
GCCG	Global climate change governance
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEG	Global Environmental Governance
GFG	Global forest governance
GHG	Green-house gases
IFAD	International Fund for Agriculture Development
IFIs	International financial institutions
IG	Integrative Governance
INDCs	Indicative Nationally Determined Contributions
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
ITTA	International Tropical Timber Agreement
IUFRO	International Union of Forest Research Organizations
LULUCF	Land-Use, Land-Use Change and Forestry
MEAs	Multilateral Environmental Agreements
MRV	Monitoring, reporting and verification
MSA	Multi-Streams Approach
NAMAs	Nationally Appropriate Mitigation Actions
NDCs	Nationally Determined Contributions
NGOs	Non-governmental organizations
PES	Payment for Environmental Services

PRAI	Principles for Responsible Agriculture Investment
RED	Reducing Emissions from Deforestation
REDD+	Reducing Emissions from Deforestation and Forest Degradation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SDGs	Sustainable Development Goals
SFM	Sustainable Forest Management
UN CBD	United Nations Convention on Biological Diversity
UNCCD	United Nations Convention to Combat Desertification
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNFF	United Nations Forum on Forest
USA	United States of America
WBSCD	World Business Council on Sustainable Development
WFP	World Food Programme
WTO	World Trade Organization

Chapter 1

Introduction

1.1. Introduction

Not so long ago, forests were considered by many as land with no social or economic function[1] (ECLAC et al. 1971: 27). Some labelled them as 'tierras ociosas', which can be translated into English as 'unproductive, inactive, or lazy' lands, while others called them 'empty lands' (Larson et al. 2010: 23, Morales et al. 2011: 205). To a larger extent, these labels were inherited from colonial times (Larson et al. 2010: 21). For instance, in some countries in Latin America, owners had to demonstrate the productive use of their land to avoid land expropriation, which in practice translated into clear cutting forest and cultivating the land (Ankersen and Ruppert 2006). They had to prove that land had a 'social function', which was very much linked to the agrarian reforms undergone during the 20th century (Ankersen and Ruppert 2006: 106). This way of framing and conceptualizing forest resulted in high deforestation rates. It has also shaped its relationship with other sectors, in particular, agriculture. The problem was not unique to developing countries, as indicated by Hoogeveen and Verkooijen (2010: 7): '...until very recently, deforestation made economic sense for most developed countries, and state policies and processes supported the land use changes from forest to agriculture and urban development to meet the needs of a growing population'. Forest framing has evolved over the past years, now increasingly emphasizing its value, however, the tension between forest and agriculture prevails to a large extent. As if the interrelationship between forest and agriculture was not difficult already, forest and agriculture are facing serious challenges: both are being affected by climate change, and are at the same time an important source of greenhouse gas (GHG) emissions (FAO 2008, IPCC 2012, 2014a, c). Agricultural and forest-related emissions account for almost one quarter of global anthropogenic emissions, in particular land-use change from deforestation and non-CO2 agriculture emissions (IPCC 2014a).

Increasing productivity has become a primary goal in the agriculture sector[2], to the extent that several policy incentives and subsidies have been promoted in the past to achieve this (Gay et al. 2005, World Bank 2007). For instance, subsidies received by farmers for several decades in the United States, Japan and the European Union led to a surplus in 1980s because some subsidies were based on production levels, creating the incentive to produce more (La Vina et al. 2006, World Bank 2007). This had serious repercussions on the environment, on the one hand (for instance, some surplus was disposed of, but also because of higher use of agrochemicals and fertilisers to increase productivity), and on the other hand, on the production of farmers in the developing world. Because of overproduction in the North, products were exported as food aid or sold at very low prices to other countries where local farmers were not able to compete (La Vina et al. 2006, World Bank 2007, Gay et al. 2005, Headey and Fan 2010). The Green Revolution as well aimed at increasing productivity and

1 At least forests outside special reserves or zones for commercial timber production.
2 Agriculture sector in this dissertation is limited to terrestrial agriculture (crops and livestock). While forests contribute to food production, I separate the two for my analysis.

introduced practices that involved, among others, the intensive use of synthetic pesticides and fertilisers (Pingali 2012, IAASTD 2009). Today, increased agricultural production is often justified by the estimation that humanity will reach 9 billion people by 2050 (United Nations 2013).

Increased agricultural productivity has led to high deforestation rates. Several studies indicate that about 70% to 80% of deforestation is caused by agriculture, in particular the expansion of agriculture into forested areas for commercial use, for instance for international markets for soy, beef and palm oil (Geist and Lambin 2002, Hosonuma et al. 2012, Kissinger, Herold, and De Sy 2012). Other drivers include urbanization, infrastructure development and mining (Kissinger, Herold, and De Sy 2012). Between 1980 and 2000 about 55% of new agricultural land replaced intact forests in developing countries; developed countries, on the other hand, actually reduced their agricultural area (Gibbs et al. 2010), and many increased their forest area (FAO 2015). However, loss of forest cover can also have an impact on agriculture, as forests provide important ecosystem services to agriculture, such as protection of water sources and soil, barrier against wind, and habitat for crop pollinators (Decocq et al. 2016). Deforestation has also affected biodiversity loss, considering that forests, in particular tropical forests, harbour high biodiversity (Brooks et al. 2002, Millennium Ecosystem Assessment 2005a, FAO 2015, IPBES 2019b).

Different efforts have been undertaken to preserve forests, including the establishment of protected areas, although this has also presented a challenge in terms of land competition with other uses such as pastures for livestock, crops, and in general, rural livelihoods (Haberl et al. 2014). Also attempts to integrate forests and climate change mitigation through the designation of certain areas for REDD+ projects (Reducing Emissions from Deforestation and Forest Degradation) has incited some other tensions and concerns in terms of environmental integrity, offsets, land tenure rights, equity, and food security, to mention just a few (Huettner 2012, Chomba et al. 2016, Poudyal et al. 2016, Gupta 2012). As indicated by Haberl et al. (2014: 44): 'Reconstruction of some wildlife corridors in Latin America, protected areas in Africa, REDD+ in many developing countries are now actively restricting cropland expansion, or reclaiming agricultural areas'. The limits to cropland expansion or transformation of agricultural areas back to forest might seem like a positive development, but it also represents a challenge for those whose livelihoods depend on agriculture.
Land is a common denominator for forest (and land-based) agriculture. Land is a finite resource and can have different alternative uses. Haberl et al. (2014: 42) identify three major categories for land competition:

1. Use of land for conservation (in its different forms, for instance, from a biosphere reserve to areas protected through Payment for Environmental Services -PES- programmes)

2. Production (e.g. wood, food and feed crops, biofuels[3])
3. Built environment (e.g. housing, transportation infrastructure, dams)

Different demands for land can lead to conflict (Carter et al. 2017, Haberl et al. 2014). For instance, industrial tree plantations have not only served their productive use (e.g., fast growing tree species for timber or paper, such as eucalyptus), but some (e.g. palm oil) are also being promoted as carbon sinks or as a means to produce agro-fuels/ biofuels to mitigate climate change (Gerber 2011, Haberl et al. 2014). This has resulted in an escalation of social tensions and conflicts, loss of biodiversity and ecosystem services, as well as the conversion of food crops or natural forest for biofuel production or tree plantations (Wise and Murphy 2012, Gerber 2011). In this context, IPCC (2014a: 837) indicates that 'Mitigation in the AFOLU[4] sector may affect land-use competition.'

Land-use and GHG emissions have also been impacted as a result of changes in diets to more consumption of animal products[5] (meat, dairy, eggs) in terms of conversion to pastures and production of animal feed (Wise and Murphy 2012, Holt-Giménez et al. 2012, FAO 2006). Also, emissions generated from livestock represent the largest share in agricultural emissions (about 70-80% during 2000s) and have been increasing in the past decades (Dickie et al. 2014, FAO 2006, Tubiello et al. 2013). As a whole, agriculture accounted for about 11% of global anthropogenic emissions in 2010 (FAO 2014), forestry and other land use emitted a similar amount during 2000s (IPCC 2014a, Le Quéré et al. 2009). From 2001 to 2011, annual agriculture emissions increased by 14%, from which about 75% of agricultural global emissions originated in developing countries (FAO 2014). Emissions generated directly from agriculture are mainly non-CO2 gases, in particular methane (CH4) and nitrous oxide (N2O), as a result of bacterial decomposition of biomass in croplands and livestock's digestion (FAO 2014, IPCC 2014a). Agricultural emissions are expected to rise between 57% and 70% by 2050 (Wilkes, Tennigkeit, and Solymosi 2013).

Forests and agriculture are also highly vulnerable to climate change. Extreme weather events, such as droughts, floods, or hurricanes, and also water shortages and high temperatures will have serious repercussions on both of them (IPCC 2012, 2014c, FAO 2016b). Forest productivity and health will be impacted, as well as their ability to provide ecosystem services (FAO 2008). Effects of climate change on agriculture will have important impacts on food security, as crop yields are expected to drop in most parts of the world as a result of climate change, and pest and disease will manifest even more in crops as well as in livestock (FAO 2016b). IPCC (2014c: 18) confirms with high certainty that 'All aspects of food security

3 Within this same category competition can take place 'further along the supply chain, as in the case of crops that can be sold for food, biofuels, or fodder' (Haberl et al. 2014: 37).

4 According to the Intergovernmental Panel on Climate Change (IPCC), AFOLU stands for Agriculture, Forestry and Other Land Use

5 Due to the impacts of industrial production of animal products on animal welfare, the consideration thereof is gaining importance in efforts to implement more sustainable food systems (see for instance, IPBES 2019b).

are potentially affected by climate change, including food access, utilization, and price stability'. To increase productivity and/or to reduce agriculture's vulnerability to climate change, the use of biotechnology has been promoted for developing inter alia climate resistant seed varieties (Saab 2015, Pray and Naseem 2007). This has brought a series of concerns regarding Genetically Modified Organisms (GMOs), intellectual property rights, benefit sharing, farmers' ancestral efforts in improving and preserving seed varieties, ethical and equity issues, and loss of biodiversity, to mention just a few (Saab 2015, Timmermann, Belt, and Korthals 2010).

As shown in the above, forest, agriculture and climate change issues are highly interlinked. Efforts to enhance coherence and synergies and reduce trade-offs are needed due to these strong interactions:

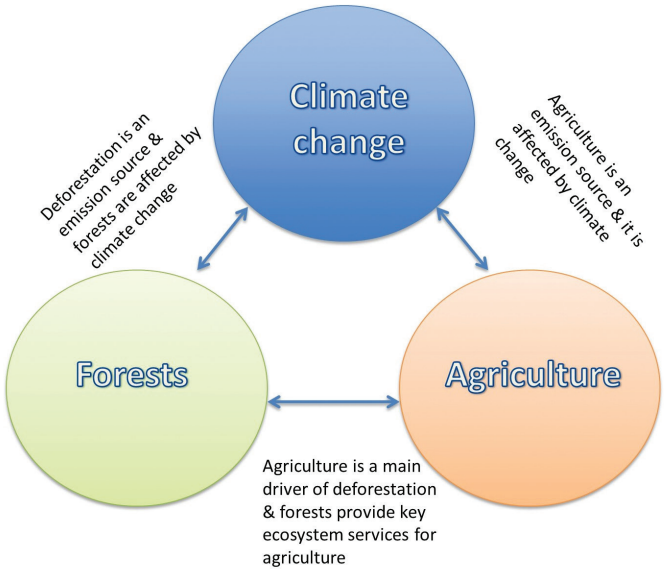

Figure 1.1 Interactions among forests, agriculture and climate change

My enthusiasm for disentangling these relationships and understanding these complex links have led to my academic and personal interests in this research. My academic interests are twofold: on the one hand, debates over international policy integration and coherence, encompassed under Integrative Governance literature (see Section 1.3.2 below), and on the other, the role of language and framing within these debates. First, ever increasing interest in policy integration and coherence has emerged in the literature, as well as in policy debates (Underdal 1980, Biermann, Davies, and Grijp 2009, Jordan and Lenschow 2010, Sianes 2017, Roe 2010, Lafferty and Hovden 2003, Visseren-Hamakers 2015, 2018b, European Commission 2019, High-level Panel on United Nations System-wide Coherence 2006, Le

Blanc 2015, United Nations 1992a). This in part occurred as a result of sectoral mismatches, resource inefficiency (overlap, duplication), policy fragmentation, conflicting policies, and a need to enhance knowledge of synergies and trade-offs among sectors (Oberthür, Dupont, and Matsumoto 2011, Le Blanc 2015, Karlsson-Vinkhuyzen and Kok 2011). Second, there is an increasing interest in language in social and policy analysis (Brink and Metze 2006, Pattberg et al. 2014, White 1992), and how problems are defined (or disregarded as such) and consequently, how solutions are framed (Hajer 1993, Garvin and Eyles 2001, Dewulf et al. 2011). Language is not considered neutral, as it does not have a merely descriptive function, but represents a means to understand and create the world around us (Hajer and Versteeg 2005, Brink and Metze 2006, Hajer 1993). Scholars recognize a 'discursive', 'linguistic' or 'argumentative' turn in the social sciences (Fischer and Forester 1993, Prior, Hughes, and Peckham 2012, Hajer 1993). This is due to 'increased understanding of the significance of language and its capacity to make politics' (Pattberg et al. 2014: 23). This has led to increased use of discourse and frame analysis in social science (Somorin et al. 2012, Dekker 2017, Brink and Metze 2006, Hajer and Versteeg 2005, Yanow 2000, Fischer 2003). Pattberg et al. (2014: 10) stress that 'Discourses are perhaps the least explored indicator in fragmentation literature...' This is also the case for framing, where few studies explicitly address (differences in) framing to understand fragmentation and enhance policy coherence. This dissertation will contribute to both debates by relating the two, which is something rarely addressed in the literature, by focusing specifically on how framing influences policy fragmentation and integration.

My personal interest in this topic revolves around two inde pendent but connected matters: firstly, the three domains as such, and secondly, how people conceptualize issues differently. Forest, agriculture and climate change are domains that have accompanied me throughout my professional career. Firstly, as a former Costa Rican diplomat, I was involved in the introduction of avoided deforestation (which later on became REDD+) onto the agenda of the United Nations Framework Convention on Climate Change (UNFCCC) in 2005. I knew that the country had since 1992 (unsuccessfully) tried to have an international legally binding instrument for addressing forest loss, and to raise forests into the international agenda, including under UNFCCC. At the same time, I was aware of the internal tensions in my country as the Minister of Environment at that time told me that his biggest 'opponent' in the cabinet was the Minister of Agriculture. I was confronted again with this tension a few years later when I started working for the United Nations Environment Programme (UNEP, currently known as UN Environment), and saw how local and national governments, as well as local communities, struggled between environmental sustainability and agriculture and livelihood considerations as if they were in opposition with each other. I was intrigued by why the issue of tropical deforestation succeeded in getting onto the climate change agenda, while more recent efforts to introduce an agriculture 'focused' work programme

in the UNFCCC were rather limited and unsuccessful, despite the strong interlinkages and tremendous potential for synergies and coordination between the three domains.

My other personal interest relates to the conceptualization and framing of issues. During my experience as part of the Costa Rican Mission to the United Nations at the UN headquarters in New York, I was responsible for the negotiation of environment and sustainable development issues for Costa Rica in one of the specialized committees (Second Committee). As Costa Rica, we were promoting the introduction of a 'Payment for Environmental Services' (PES) innovative financial mechanism into the different (relevant) sustainable development resolutions as a means to increase its international acceptance and (financial) support. Costa Rica recognized four main forest environmental services: CO2 sequestration, protection of biodiversity, of water, and landscape beauty. The government developed a financial mechanism to pay forest owners for the services provided. Costa Rica's PES programme was relatively successful but lacked sufficient funds to satisfy the demand of forest owners. We found allies in the EU and Swiss delegations, and significant opposition from several developing countries. However, at certain point we realized that even though we were all talking about PES, we meant different things. For the Swiss, landscape beauty included a Swiss cow in a landscape, so subsidizing cattle for the 'environmental service' provided was justified for them. For the EU, PES seemed to be related, among others, to the 'multi-functionality of agriculture' concept, which recognized non-productive values of agriculture, such as protection of biodiversity, landscape preservation, cultural heritage, etc.[6], which in the end, was justifying the continuation of agricultural subsidies on environmental grounds. As such, Costa Rica couldn't legitimize something to which we were seriously opposed in the agriculture and trade policy domains: subsidies. This period of my career also gave me the opportunity to meet very skillful diplomats, who could pull apart someone else's proposal with such elegance that the other party would not lose face. They were able to say no without explicitly opposing, and yet without seeming too eager, even though they had a big national interest at stake. I became aware of the 'power of words' (which I recognize now as 'strategic framing' in academic terms), and how framing an issue in one way or another could make all the difference in the outcome of a negotiation.

1.2. Brief overview of global forest, agriculture and climate change governance

Current global governance is a complex web of different governance systems that are connected to each other in many different ways and levels, directly or indirectly, intentionally or unintentionally. Global governance is 'the sum of the different ways in which public and private actors govern certain issues at the international level, acting individually or jointly' (adapted from Arts and Visseren-Hamakers (2012)). In this section I will address the global governance of forest, agriculture and climate change, as each of

6 See Huylenbroeck et al. (2007) for more information about the multi-functionality of agriculture.

them functions independently, but at the same time, on many occasions efforts to govern each issue have repercussions for the other issue areas. A brief analysis in terms of scope, main social scientific research, type of actors and of norms and rules prevalent in each of them[7] is provided as a background for understanding the interconnections among the three, as further developed in this dissertation.

1.2.1. Global agriculture governance (GAG)

GAG is closely related to but not the same as Global Food Security Governance (GFSG). Food security can be defined as 'when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life' (World Food Summit 1996: art. 1). In this regard, food security brings elements of access, nutrition, health and equity. Agriculture on the other hand, besides providing food for people and being a main source of livelihood for many others, deals with other matters such as bioenergy production, animal feed and livestock, all of which have an impact on food security as well. Most social scientific research on GAG and main debates address one or more of the following main dimensions:

1. International organizations and rules and norms governing agriculture (including matters related to reforms, overlaps, gaps, coordination, strengthening) and the roles of different stakeholders therein (Civil Society Organizations – CSOs-; private sector; researchers; government; etc.) (e.g. Pan-Montojo and Mignemi 2017, Jachertz 2014, Margulis 2013, McKeon 2017);
2. Agrarian change, agricultural transformations or transformative changes (e.g. Borras 2009, Reardon et al. 2009, IPES-FOOD 2016);
3. Model and scale of production, for instance, large scale versus small scale agriculture, global value chains versus building up local food economies and linking farmers to markets, agroecology, agricultural intensification (e.g. Blesh et al. 2019, Altieri 2018, Dixit 2014, Franz, Felix, and Trebbin 2014);
4. Global justice, rights, food sovereignty, gender issues, power dimensions and health and equity concerns (e.g. Timmermann, Belt, and Korthals 2010, Saab 2015, Razavi 2003, van der Ploeg 2014, Newell and Taylor 2018); as well as animal health and welfare (e.g. Bismuth et al. 2018, Keeling 2005, OIE 2018)
5. Agriculture in the context of challenges that involve global and national action (e.g. climate change, food security, biofuels, trade rules, transboundary food safety, health, food crisis, food loss and waste, Sustainable Development Goals (SDGs), diets and nutrition) (e.g. Tubiello et al. 2009, Richards, Gregersen, et al. 2015, Margulis 2018, Clark, Hill, and Tilman 2018, FAO 2016b);
6. Innovation and research (e.g. CGIAR/CCAFS 2016, Turner et al. 2017, Saab 2016); and

7 The main types of norms and rules are further developed in Chapter 2

7. Agriculture and natural resource use, including its relationship to other domains such as forest, water, energy, climate change (e.g. van Noordwijk et al. 2018, Franz, Schlitz, and Schumacher 2018, Frank et al. 2017, Agrawal, Wollenberg, and Persha 2014, Hanjra and Qureshi 2010);

Most agriculture research is focused on the production side, in particular crop production and livestock, and less with the consumption side and nutrition needs.

Global agriculture governance is characterized by the multitude of actors involved in this issue area, ranging from governments to intergovernmental organizations, farmer organizations, transnational agri-business corporations, research and civil society organizations. Within this group of actors, the private sector has demonstrated to have increasing voice and power in determining agricultural policies and the rules that govern them, including through the creation of (public-) private mechanisms (Clapp and Fuchs 2009). There are multiple norms, rules, etc. governing agriculture, including soft law agreements (voluntary, non-legally binding) such as the Principles for Responsible Agricultural Investment that respect rights, livelihoods and resources (PRAI) (2009). Soft law agreements also include several declarations and statements by the different organizations, calling for actions, announcing commitments, or just creating awareness (e.g. Declaration of the World Summit on Food Security – 2009 (FAO 2009a) or the G8 L'Aquila Joint Statement on Global Food Security (G8 2009)). As for hard law, several Multilateral Environmental Agreements' (MEAs) decisions or resolutions have an effect on agriculture, such as the agreement to reduce and phase out methyl bromide[8] under the Montreal Protocol on Substances that Deplete the Ozone Layer, or those related to the Cartagena Protocol on Biosafety. World Trade Organization (WTO) agreements and decisions are also legally binding and have direct repercussions on agriculture. These include the Agreement on Agriculture (AoA) and Trade Related Aspects of the Intellectual Property Rights Agreement (TRIPS).

1.2.2. Global forest governance (GFG)

The role that forests play in terms of cultural values, livelihoods, climate change, protecting water sources and biodiversity, energy sources, etc., is key for many countries and the world as a whole (Agrawal, Chhatre, and Hardin 2008: 1462, FAO 2015, Millennium Ecosystem Assessment 2005b). A large amount of literature has addressed Global Forest Governance. However, there is disagreement on the failure or success of GFG in generating commitments, action and results on the ground, which materialize in achieving sustainable forest management (SFM) and reducing deforestation and forest degradation at the national level (Arts and Babili 2013). Despite these differences, critics agree on two things: a multiplicity and diversity of actors are involved in GFG, and there are a wide array of norms, rules, laws, addressing forests. This makes GFG a very complex issue, which has resulted in a

8 Gas used, i.a. for fumigation in agriculture.

fragmented, congested, uncoordinated and incoherent governance system (Arts and Babili 2013, Hoogeveen and Verkooijen 2010). Some scholars consider that this complexity is the result of many different discourses taking place at the same time (Arts and Buizer 2009). Most social scientific research on GFG and main debates can be encompassed within one or more of these broad themes:

1. Assessing GFG effectiveness, fragmentation, forests norms and rules, role of different stakeholders and the translation of international forest policy into national and local contexts and vice-versa (e.g. Dimitrov 2005, Humphreys 2006b, Arts and Babili 2013, Plaza Esteban, Visseren-Hamakers, and Jong 2014, Faggin and Behagel 2017, Giessen 2013);
2. Forests interlinkages with other domains such as agriculture, climate change (including REDD+), disaster risk management, as well as main drivers of deforestation, and the related synergies and trade-offs (e.g. Levin, McDermott, and Cashore 2008, Corbera and Schroeder 2011, Kissinger, Herold, and De Sy 2012, Visseren-Hamakers 2013)
3. Modes of governance and management approaches, including ways to combat and compensate for deforestation and forest degradation. Topics include decentralization; participatory approaches; forest protected areas; market approaches; portfolio approach; non-state led steering mechanisms and initiatives, such as (public-)private partnerships; inter-sectoral coordination; sustainable forest management; payment for environmental services, and specific (types of) instruments (e.g. certification) (e.g. Hogl et al. 2008, Hoogeveen and Verkooijen 2010, Gupta, Pistorius, and Vijge 2016, Visseren-Hamakers and Glasbergen 2007, Lund, Rutt, and Ribot 2018, Paladino and Fiske 2017, Colchester 1994, Siry, Cubbage, and Ahmed 2005)
4. Monitoring, reporting and verification (MRV) (e.g. Herold and Skutsch 2011, Ochieng et al. 2018)
5. Forest as livelihood, timber and non-timber forests products, ecosystem or environmental service providers (e.g. IUFRO 2015, Kosoy et al. 2007, Marshall, Newton, and Schreckenberg 2003, Locatelli et al. 2014)
6. Questions of justice, rights, equity, traditional knowledge and spirituality (e.g. Clark 2011, Gupta 2012, McDermott, Mahanty, and Schreckenberg 2013, Uprety et al. 2012)

Actors from different backgrounds, interests and priorities are active in GFG (Verkooijen and Hoogeveen 2010). Governments represent a key player in GFG. In accordance with the latest Global Forest Resource Assessment 2015, in 2010, 76% of all forest area was in public hands, 20% was in private hands, and for 4%, ownership was unknown (FAO 2015: 38). Thus, forest governance is a very sensitive topic to many governments. However, the central role of governments in GFG started to diminish during the 1980s and 1990s to give space to non-state actors (Agrawal, Chhatre, and Hardin 2008, Arts and Babili 2013, Hoogeveen and Verkooijen 2010). This includes private and civil society actors. They have been key in

promoting certification schemes and influencing consumer behaviour (Agrawal, Chhatre, and Hardin 2008). The Forest Stewardship Council (FSC) is one of them. FSC certifies that forests have been managed responsibly (FSC 2015b). International Financial Institutions (IFIs) have also been an important actor with different funding mechanisms such as the Forest Investment Program or Forest Carbon Partnership Facility of the World Bank. Civil Society Organizations, including NGOs, have been key in assuming advocacy roles, monitoring and supporting implementation (Verkooijen and Hoogeveen 2010). Other key actors include multilateral and regional organizations, and research organizations.

As for the legal framework, the approach to forests is very fragmented and lacks a comprehensive legally binding agreement (Arts and Babili 2013, Arts and Visseren-Hamakers 2012, Giessen 2013, Hoogeveen and Verkooijen 2010, Humphreys 2006b, Rodríguez Fernández-Blanco, Burns, and Giessen 2019). On one side, there are several legally binding treaties (hard law) that address some aspects of forests, such as the International Tropical Timber Agreement (ITTA) and the Multilateral Environmental Agreements (MEAs) (Arts and Buizer 2009). On the other side, GFG is characterized by a high degree of soft law commitments, within and outside the UN umbrella. There are several voluntary instruments under intergovernmental organizations; private instruments (for example, certification schemes under the FSC or the Program for the Endorsement of Forest Certification – PEFC); and bilateral arrangements (e.g. Forest Law Enforcement, Governance and Trade- FLEGT-) (Arts and Babili 2013). Also the different rules and norms established by the most significant partnerships that have emerged around forest, in particular REDD+, are also very influential in terms of international policy development, including by informing negotiations (Visseren-Hamakers and Verkooijen 2013).

1.2.3. Global Climate Change Governance (GCCG)

Climate change has an impact in many sectors of society (IPCC 2014c). At the same time, every sector or economic activity has an impact on global climate (IPCC 2014d). This has spurred many actors to get involved in the issue of climate change, but this has in turn led to complications in terms of coherence and consistency of efforts. GCCG is characterized by its multi-institutional nature (Gehring and Oberthür 2008). Its institutional core is the UNFCCC, where the main actors are governments (Parties). Most scientific research on GCCG and debates centre around one or more of the following main themes:

1. Global justice, rights, power, principles (such as Rio Principles, e.g. precautionary principle, common but differentiated responsibility), transparency, accountability, etc. (e.g. Gupta and van Asselt 2019, Eriksen et al. 2011, Chatterton, Featherstone, and Routledge 2013, Deleuil 2012)
2. Impacts and effects on natural resources and on different societal and economic sectors (and vice-versa) (e.g. Parry et al. 2004, FAO 2008, Barange et al. 2014, Cinner et al. 2012)

3. Norms and rules, within and outside UNFCCC, fragmentation, role of different stakeholders, including initiatives undertaken (e.g. (public-)private steering mechanisms, projects and programmes), climate finance, market or non-market approaches (e.g. Keohane and Victor 2011, Karlsson-Vinkhuyzen and McGee 2013, Bäckstrand 2008, Hare et al. 2010, Caparrós and Jacquemont 2003, Buchner et al. 2011, Biesbroek, Swart, and van der Knaap 2009, Biermann and Brohm 2004)
4. Accounting rules and MRV, with a major focus on GHG emissions measurement in order to address emission reduction efforts (mitigation), including emissions removals from the atmosphere, and less focus on addressing climate change adaptation (e.g. Romijn et al. 2012, FAO 2014, Ascui and Lovell 2011)

Governments occupy a prominent role in GCCG, however, the space is opening up more and more to other stakeholders (Biermann et al. 2009, Keohane and Victor 2011, van Asselt 2014). International financing institutions (IFIs) are an important group of actors. The World Bank, for instance, has been key in establishing specific programmes and dedicating an important amount of resources to support countries in their efforts to address climate change. Regional Development Banks are also investing in climate change programmes. Research institutions have also been key in generating knowledge for decision making. The Intergovernmental Panel on Climate Change (IPCC) represents an important effort by scientists around the world to assess current scientific knowledge on climate change and inform decision makers, including UNFCCC negotiations, and to develop methodologies. Several United Nations funds and programmes are also addressing climate change considerations and supporting implementation on the ground, based on their own expertise (UNEP, FAO, UNDP, UNIDO, etc.). Civil society organizations (CSOs), including NGOs, are also important stakeholders in GCCG and assume different roles, such as advocacy, expertise, or implementation. The private sector is also key. They are responsible for a high level of GHGs emissions (in the different sectors – energy, AFOLU, industry, transport, etc.-), but they are also in a position to take action to reduce GHG emissions (Moorhead 2013).

GCCG is highly regulated. It is a mix of hard and soft law instruments. However, there is general recognition that the UNFCCC, including its Kyoto Protocol and more recent Paris Agreement, has played a key role in leading global response to climate change. This puts UNFCCC rules and norms in a very central position in terms of the GCCG system. However, there are also other legally binding agreements that have an indirect effect on GCCS, e.g., those emanating from MEAs such as the Montreal Protocol on Substances that Deplete the Ozone Layer, or those related to trade, for instance, under WTO. For example, certain countries have for some time sought to 'liberalize trade in specific climate-friendly goods and services' (van Asselt 2014: 6) or to forbid the entrance of other goods due to their 'environmentally unsustainable' process or production methods (PPM) (Read 2005). Soft law instruments include private mechanisms, such as voluntary carbon markets or

certification schemes, as well as voluntary instruments adopted by different international organizations.

There are currently some efforts to integrate certain aspects among two or more domains, such as REDD+: integrating forests and climate change; CSA (Climate Smart Agriculture): integrating agriculture and climate change; or CSL (Climate Smart Landscapes): integrating the three domains. This dissertation will deepen our knowledge about such endeavors. The three domains could benefit from greater efforts to enhance policy coherence and hence reduce conflict. If properly managed and with coherent incentives, synergies among forest, agriculture and climate change could be enhanced and trade-offs reduced.

1.3. Theoretical Framework

1.3.1. Global Environmental Governance

Based on the definition of global governance shared in previous section, specifically, I understand Global Environmental Governance (GEG) as the different ways in which actors, both private and public, try to steer, address, oversee or regulate environmental issues at the international level (adapted from Najam, Papa, and Taiyab 2006, Arts and Visseren-Hamakers 2012). These debates date back to the 1960s as awareness increased on human impacts on the environment (e.g. oil spills, air and water pollution) and their effects on human wellbeing, including those caused by acid rain (UNEP 1992, Shelton 2008). In 1968, through resolution UNGA Res 2398 [XXIII] entitled: 'Problems of the human environment', the United Nations General Assembly agreed to convene what we know today as the first global environmental conference: the United Nations Conference on the Human Environment, which was held in Stockholm, Sweden, in 1972. Agreeing to such a conference and the road leading to it was not an easy endeavour, as southern countries were hesitant regarding the need for such an encounter and questioned the extent to which environmental issues were a global priority or just a concern of northern countries (Najam 2005). In their opinion the developing world had other more pressing issues to address, such as poverty, and perceived northern environmental concerns as potential impediments to their development (Najam 2005). As indicated by Najam (2005: 308) 'What the developing countries were questioning, throughout the 1970s, was not just the relative importance of environmental policies but the very legitimacy of how the environmental discussions were framed'.

Almost fifty years have passed since then, in which hundreds of bilateral and multilateral environmental treaties have been drafted (Biermann, Davies, and Grijp 2009, Najam, Papa, and Taiyab 2006, Hens and Nath 2003, Mitchell 2003), as well as non-binding instruments (i.a. declarations, guidelines, codes of conduct, resolutions, etc.) (Friedrich 2013). UNEP (now known as UN Environment) was created to coordinate UN responses to environmental issues and monitor the environment (United Nations 1972); ministries of environment have

been created (UNEP 1992); key milestone conferences have been held, such as the United Nations Conference on Environment and Development (Earth Summit) in 1992; more funding is now available for environmental issues (Najam, Papa, and Taiyab 2006); and NGOs and civil society in general have increased their role and participation in environmental discussions and implementation (Najam, Papa, and Taiyab 2006, Oberthür et al. 2018, Gemmill and Bamidele-Izu 2002, Biermann and Pattberg 2008). In short, environmental considerations seem to have a higher position on national and international agendas. Despite this development, environmental degradation continues to occur[9] (Chasek, Downie, and Brown 2006, IPCC 2014b, 2018, IPBES 2019b). The magnitude of the efforts does not match the speed in which natural resources are being depleted. Partly due to this rapid growth and the many actors involved, GEG is also faced with several operational, organizational and institutional challenges such as: fragmentation, overlap, lack of coordination, poor treaty implementation, and weak ministries of environment (Nunan, Campbell, and Foster 2012, Biermann, Davies, and Grijp 2009, Najam, Papa, and Taiyab 2006).

The overall research agenda on GEG in accordance with the most recent Earth System Governance Framework highlights the following five research topics[10] (or 'lenses'): 1) architecture and agency; 2) democracy and power; 3) justice and allocation; 4) anticipation and imagination; and 5) adaptiveness and reflexivity in a context of transformations, inequality, anthropocene, and diversity (Earth System Governance Project 2018). Within this context, Biermann et al. (2008) consider that most of what is currently considered in the literature as part of the GEG debate addresses one (or more) of the following three interconnected dimensions: 1) the increasing role and involvement of non-state actors in global environmental affairs (Gemmill and Bamidele-Izu 2002, Oberthür et al. 2018, Visseren-Hamakers 2013, Bäckstrand 2006, Tienhaara, Orsini, and Falkner 2012); 2) the development of new types of institutions, mechanisms, arrangements, norm setting, next to the traditional intergovernmental regimes (Gupta, Pistorius, and Vijge 2016, Plaza Esteban, Visseren-Hamakers, and Jong 2014, Arts 2006, Pattberg 2012); and lastly, 3) the fragmentation (and the means and ways to deal with it, including the reform agenda) resulting from this heterogeneous actor constellation and the increased number of environmental treaties and new types of institutional arrangements (Isailovic, Widerberg, and Pattberg 2013, Pattberg et al. 2014, Biermann et al. 2009, Zelli and van Asselt 2013, Najam, Papa, and Taiyab 2006, Andresen 2001).

9 See also the 2019 Global Environmental Outlook (UN Environment 2019); the 2016 Global Environmental Outlook reports of Africa, Asia and the Pacific, Europe, Latin America and the Caribbean, North America and West Asia (UN Environment 2016); Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) regional assessment reports on biodiversity and ecosystem services in IPBES (2018), as well as the Global Assessment Report on Biodiversity (IPBES 2019b).

10 Known in the previous framework from 2008 as the 5 A's: architecture, agency, adaptiveness, accountability and allocation and access (Biermann et al. 2010, Biermann 2008)

The GEG system is linked to other domains, for instance, in terms of socio-economic activities and/or biogeophysical space (also known as functional interplay in Young (2002b: 264)). It touches upon several domains in society (energy, industry, transport, agriculture, health, trade, etc.), as many are based on the natural resources found in the environment, are key for human survival or have an impact on the environment and human well-being. Population growth, production and consumption patterns, including increased consumption of processed food as well as animal products, are having serious impacts on the environment (Clark, Hill, and Tilman 2018, IPCC 2014a, IPBES 2019b).

This dissertation is positioned within these Global Environmental Governance (GEG) debates. I recognize that global forest, climate change and agriculture governance include other dimensions besides environmental concerns (including for example food security); however, the needed transformations on the path to sustainability will especially require the consideration of their interaction with and role in the GEG system. At the same time, the different policies and rules continuously being developed within each domain have the potential to (positively or negatively) influence the development, implementation and performance of policies or rules in other issue areas (see Visseren-Hamakers 2018b, a). Along the same lines, Salvini (2016) stresses that 'policies aimed at reducing deforestation cannot be disconnected from policies in the agriculture sector', otherwise they run the risk of being ineffective in addressing deforestation. Biermann et al. (2010: 281) conclude that 'To the extent that the environmental consequences of non-environmental institutions are covered by environmental institutions at the same time, the problem of non-environmental institutions becomes a problem of institutional interaction, and hence a problem of the architecture of environmental governance'. This positions the debates on interaction in the architecture pillar of the Earth System Governance Framework, though it also touches upon some elements of the other pillars.

1.3.2. Integrative Governance: addressing the fragmentation of global governance

Debates on the complexity and fragmentation of global governance are highly recognized in the literature and policy debates (Biermann et al. 2009, Visseren-Hamakers 2018b, Isailovic, Widerberg, and Pattberg 2013, High-level Panel on United Nations System-wide Coherence 2006, Stafford-Smith et al. 2017). A varied set of concepts have been introduced (theoretically and empirically) to try to disentangle and understand governance fragmentation and complexity, enhance synergies and reduce trade-offs (Visseren-Hamakers 2018b). Some of these terms and approaches include regime complexity and fragmentation, environmental policy integration (EPI), mainstreaming, the nexus approach, multilevel governance, institutional interaction and interaction management, just to mention a few. Visseren-Hamakers (2015, 2018b) has coined the term Integrative Governance (IG) in order to bring all these different concepts under one umbrella – as the fragmentation debate 'has itself been rather fragmented' (Visseren-Hamakers 2015: 136) - and try to enhance knowledge

and understanding of the possible explanations for and implications of fragmentation, as well as how best to address it.
IG addresses 'the theories and practices that focus on the relationships between governance instruments and/or governance systems. Governance instruments include public, private, and hybrid (public–private) policies and rules, and a governance system is defined as the total of instruments on a certain issue at a specific level of governance.' (Visseren-Hamakers 2018b: l342). Defragmentation of the debate has the potential to increase understanding of the relationships within and among governance systems/instruments, and identify different measures, including policy solutions, that could enhance synergies and improve relationships, while reducing trade-offs, addressing an important gap in policy and academic debates (Visseren-Hamakers 2018b).

Despite the great number of publications on the different concepts and approaches covered under IG, Visseren-Hamakers (2018a: 3) identifies the following four gaps: 'very little work has been done to analyze the relationships between and performance of governance systems; very few studies develop explanatory analyses of the relationships between governance instruments and/or systems; there is a lack of understanding on how IG works at different levels of governance; and IG analyses are mostly applied to existing instruments, less so for developing new ones.'

Within the IG literature, there are different views on whether fragmentation is a desired state ('diversity') or not (Biermann et al. 2009, Benvenisti and Downs 2007, Gehring and Oberthür 2008). Biermann et al. (2009) recognize that on some occasions fragmentation is not necessarily unintentional, for example, with the creation of other initiatives outside the traditional ones (as in the case of the creation of the Asia-Pacific Partnership led by the USA outside the UNFCCC). Zelli (2011: 212) argues that sometimes powerful actors 'may seek to influence regime conflict through other channels, outside the affected regimes, in arenas where they can better exert their power'. Biermann et al. (2009: 19) recognize three types of fragmentation: synergistic, cooperative and conflictive, measured in terms of the degree of institutional integration; conflicting norms; and actor constellations (their involvement in same or different institutions, and how cooperative are those outside main institutions); while Pattberg et al. (2014: 10) add discourse constellations to their fragmentation/integration framework, arguing that '...discursive fragmentation arises when there is contesting framings of the problem...' and as mentioned earlier, discourses have not received enough attention in fragmentation debates. Visseren-Hamakers (2018a) introduces discourses as one of the explanatory factors of why relationships and performance of governance systems are the way they are, together with other interrelated factors: actors, institutions and structure.

1.3.3. Discourses and Frame theory

Discourses can be defined as 'a specific ensemble of ideas, concepts, and categorizations that are produced, reproduced, and transformed in a particular set of practices and through which meaning is given to physical and social realities' (Hajer 1995: 44). Arts et al. (2010) distinguish two approaches to discourse theory: a) thick approaches, where discourse cannot be detached from 'reality', discourse is everything, not one factor, as argued by Foucault, emphasizing power, language and knowledge shaping the world around us; and b) thin approaches, where discourse is 'one factor among others, such as agency, resources and rules, to explain politics', examples of which include frame analysis and discursive-institutionalism. Discourses and frames are then highly related, to the extent that sometimes the two concepts are used interchangeably, although discourses are broader and more encompassing and frames are more specific (Dewulf 2013). Frames are influenced by and encompassed in broader discourses (Somorin et al. 2012). As indicated by O'Brien et al., (2007: 76) 'Framings emerge from discourses that are embedded in institutions, actors and academic disciplines'. Somorin et al. (2012: 289) highlight frame analysis as 'strong on "agency"' in the sense that people 'name and frame the world around them in particular way'. In this dissertation I will apply a 'thin' approach, namely framing, since I will pay attention to more factors than discursive ones only, like institutions.

Initial studies on frames and framing date back to anthropologist Gregory Bateson (1955) and sociologist Erving Goffman (1974). Since then, the concept has been adopted in several academic disciplines in the social sciences, ranging from linguistics (Cienki 2007, Fillmore 1982); public policy (Rein and Schön 1996, Schön and Rein 1994, Yanow 2000); social movements (Benford and Snow 2000, Snow et al. 1986); communication (D'Angelo 2002, Entman 1993, Scheufele 1999); and psychology (Tversky and Kahneman 1981, Levin, Schneider, and Gaeth 1998); and as such, have become subject to different definitions, paradigms, and theoretical and methodological approaches (Dewulf et al. 2009, Borah 2011). Within public policy and social movement research, scholars identify two broad approaches: those who use 'frame' as a noun ('more definitional, static') and those who use it as a verb (more 'dynamic' and 'potentially politically aware engagement'), although they do not consider these approaches as mutually exclusive (Hulst and Yanow 2014: 2)[11]. Schön and Rein (1994: 23) define frames as: 'underlying structures of belief, perception and appreciation'. Frames enable individuals to understand and interpret the world around them (Goffman 1974). Framing is the active and dynamic process of creating frames (Hulst and Yanow 2014). Dewulf (2013: 322) defines framing as 'The process by which issues, decisions, or events acquire different meanings from different perspectives...'. In a similar way, Chong and Druckman (2007: 104) refer to framing as 'the process by which people develop a particular conceptualization of an issue or reorient their thinking about an issue'.

11 Similarly, Dewulf et al. (2009: 159) distinguish two approaches in their research on framing/frames in negotiation and conflict management: frames as 'knowledge structures ("cognitive representations")', as well as 'inter-active frames', i.e., the 'co-construction' of meanings during interaction.

In accordance with Schön and Rein (1994: 23) 'the frames that shape policy positions and underlie controversy are usually tacit, which means that they are exempt from conscious attention and reasoning', which also means that 'we tend to argue *from* our tacit frames *to* explicit policy positions' (Schön and Rein 1994: 34). Despite this, in the presence of policy controversies that result from holding conflicting frames, if actors could consciously reframe issues or reflect on the different frames, they could come up with a new frame (Schön and Rein 1994). While some frames are implicit or tacit and individuals are unaware of their existence (Schön and Rein 1994, Ernste 2012), frames or framing have also been used in an strategic way to influence decisions or gain support (Hulst and Yanow 2014, Ernste 2012). This has been the focus, for instance, in social movement research (Benford and Snow 2000, Benford 1997). Bedford and Snow (2000: 624) talk about 'strategic processes', that is 'framing processes that are deliberative, utilitarian, and goal directed: Frames are developed and deployed to achieve a specific purpose...'. Building on Goffman's (1974) work, which conceives interpretation as a complex process where 'both individual and corporate actors often misunderstand or experience considerable doubt and confusion about what it is that is going on and why' (Snow et al. 1986: 466), Snow et al. (1986) developed the concept of 'frame alignment' (linking individual or group frames). They identified four forms of alignment:

1. Frame bridging: connecting similar frames on a certain issue or problem.
2. Frame amplification: focus on and amplification of certain values or beliefs related to an issue or event.
3. Frame extension: frame expanded to include other aspects of relevance to others and thus broaden its support.
4. Frame transformation: transforming a frame (reframing) to make it look like a (new) different frame.

Policy integration seems also to be affected by differences in framing (Runhaar 2016), for instance: 'Careful framing of climate change can stimulate policy integration as it can avoid and overcome conflicts of interest between climate and sectoral objectives...' (Runhaar, Driessen, and Uittenbroek 2014: 239). Different frames can lead to fragmentation (Pattberg et al. 2014) and conflict (Schön and Rein 1994, Daviter 2007), thereby preventing integration.

This dissertation will specifically focus on the nexus between forest, agriculture and climate change in the context of GEG. I will address this under an Integrative Governance (IG) umbrella (Visseren-Hamakers 2018b, 2015), which encompasses debates on fragmentation and integration of global governance. The consideration of framing within IG can address certain gaps (as listed under 1.3.2.) by elucidating why the relationships among governance systems are the way they are, or by showing how framing can support the development of new instruments in a way that synergies are promoted and trade-offs are reduced.

1.4. Conceptual framework

After the introduction above of the main concepts and literatures, below I will proceed to explain in the conceptual framework how the central theoretical concepts have been operationalized in this dissertation. Within the IG umbrella, I will use the following themes as a means to enhance integration: interplay management, agenda setting and partnership formation and development, and connect them with framing theory to make the link between IG and framing literature more explicit (see next section).

With this, the theories and concepts to be used in this dissertation can be summarized as follows:

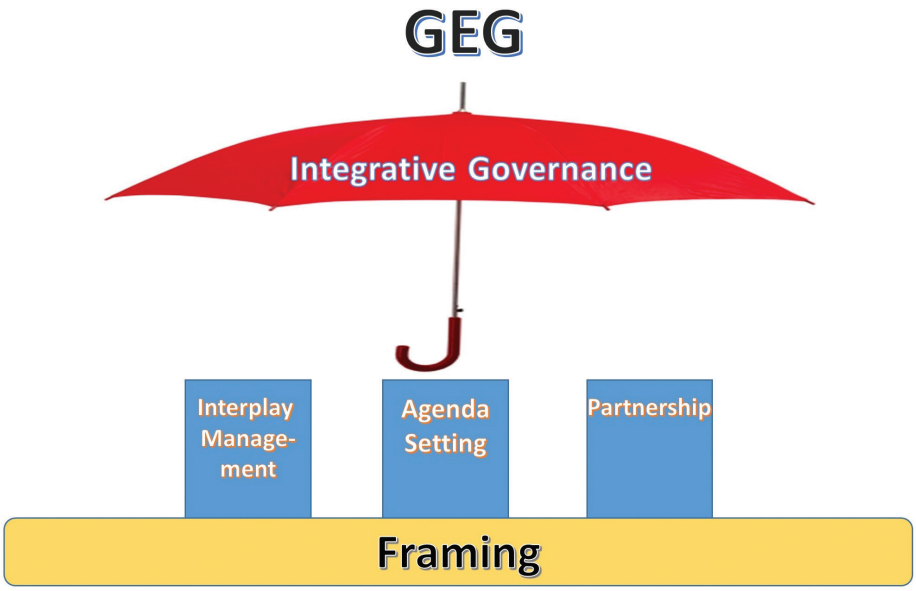

Figure 1.2 Theories and concepts used in the analysis

1.4.1. Interplay management and framing

Institutional interaction analysis addresses how international institutions interact with and influence each other (Gehring and Oberthür 2009). Institutions can be defined as 'persistent and connected sets of rules and practices that prescribe behavioural roles, constrain activity and shape expectations' (Keohane 1989: 3). In accordance with Gehring and Oberthür (2009), interaction can be considered positive (enabling synergies between both institutions), negative (detrimental effects on the target institution objectives), or neutral (no effect).

Research on institutional interaction is also related to interplay (or interaction) management. Institutional interaction can take place without those involved realizing it (Oberthür 2009: 373). It occurs naturally, for example, when institutions are addressing 'substantive problems or activities linked in biogeophysical or socioeconomic terms' (functional interlinkages or functional interplay) (Young 2002b: 264). Interplay management on the other hand, needs a conscious decision and action to influence institutional interaction (Oberthür 2009, Stokke 2001). Young (2002a) also refers to it as 'political interplay', and argues that these efforts can be developed to enhance institutional effectiveness. In other words, interplay management represents the 'governance of institutional interaction' (Oberthür 2009: 373). Interplay management strives to address governance within the same policy domain and its different levels of governance (vertical interplay), as well as within or among sectors (horizontal interplay) (Karlsson-Vinkhuyzen and Kok 2011, Oberthür 2009).

At the international level there is no overarching institution coordinating all sectors and ensuring greater coherence (Gehring and Oberthür 2009). Instead, there is a fragmentation of institutions, organizations with overlapping or conflicting mandates or issues, and multiple (governmental and non-governmental) actors (Biermann et al. 2009, Kok and de Coninck 2007: 596, Margulis 2011, Raustiala and Victor 2004). Within this context, integrating policies among sectors is not an easy task, although it can contribute to greater effectiveness, reducing conflict and enhancing synergies (Oberthür 2009). In accordance with Oberthür (2009: 374) policy integration at the international level 'requires interplay management, i.e. managing the interaction of various independent sectoral governance systems and their policies without elaborate structures and designated fora...'. Underdal (1980: 159) is considered by some as one of the first authors to address the term 'policy integration' in 1980 through his work on marine policy integration (Lafferty and Hovden 2003, Nilsson and Persson 2003), although to date there are different understandings of what (environmental) policy integration entails (Lafferty and Hovden 2003, Runhaar 2016, Runhaar, Driessen, and Soer 2009, Jordan and Lenschow 2010). In general, (policy) integration is 'the inclusion of sector specific objectives, considerations or concerns into other policy domains' (based on Environmental Policy Integration – EPI- literature, e.g. Lafferty et al. (2003), Biermann et al. (2009), see also Chapter 2).

In this dissertation I will analyse interplay management efforts undertaken to enhance integration among the three domains, building on the framework by Karlsson-Vinkhuyzen et al. (2011), which looks at the direction of the integration (e.g. forests into the climate change governance system and vice versa), and maps the number and main types of norms and rules governing each governance system to assess the degree of legalization. Additionally, I will identify the tacit and dominant frames, and use framing as one of the key elements in explaining 1) why interaction management efforts can be more or less successful in achieving integration among the three domains of climate change, agriculture and forests,

depending on the compatibility of frames; but also, 2) how framing can be considered an interaction management effort as such.

1.4.2. Agenda setting and framing

An 'agenda' can be understood as 'a collection of problems, understandings of causes, symbols, solutions, and other elements of public problems that come to the attention of members of the public and their governmental officials' (Birkland 2007: 63). Agenda-setting research in public policy aims to understand why certain issues rise on governmental agendas for decision making, while others never make it or just dissipate after some time (Kingdon 2014). Explanations for this phenomenon have been offered from varied perspectives from different scholars (e.g. Bachrach and Baratz 1962, Baumgartner and Jones 2009, Downs 1972, Jones and Baumgarter 2012, Dunn 2016, Kingdon 2014), including how framing certain issues on the (inter) governmental agenda can lead to conflict and alter decision making (Daviter 2007).

Key for agenda setting is the identification of 'conditions' that are framed as problems in need of a solution (Kingdon 2014: 197). Solutions proposed will depend on how the problem is framed, including why it is a problem, its scale, for whom it is a problem, and who is responsible (Benford and Snow 2000, Dewulf 2013, Rochefort and Cobb (eds) 1994). For instance, different framings of climate change adaptation can have different implications for the required responses (Dewulf 2013, Wise et al. 2014). If adaptation is considered a security problem, it will encompass different solutions compared to adaptation as a technical problem (Dewulf 2013). In this dissertation I am connecting agenda-setting literature, specifically Kingdon's (2014) Multi-Streams Approach (MSA), with framing theory (Dewulf 2013, Benford and Snow 2000, Schön and Rein 1994). Kingdon's MSA considers three independent streams (problem, policy and political) that can come together when a 'window of opportunity' opens up - predictably or unpredictably - when events occur in the political or problem streams (e.g. a change of administration, a natural disaster, train accident) and diligent policy entrepreneurs come in to link the streams, so that the issue enters the 'decision agenda' – 'a list of items for actual action' (Kingdon 2014: 20). Within each stream, there are some key aspects:

1. *Problem stream:* problems reflected in indicators (or reports), as well as emanating from feedback and focusing events that call for attention or action (e.g. a disaster or a crisis).
2. *Policy stream:* addresses the solution(s) available, future constraints of the proposed solution, its technical feasibility and values in conflict among interested policy groups regarding the proposed solution.
3. *Political stream:* considers the international mood or climate, the pressure groups, government affairs (e.g. change of administration, internal jurisdiction issues, etc.),

existing or emerging coalitions and bargaining.

Policy entrepreneurs play a key role. These are actors that, besides investing their time and resources to advocate for certain matters, can frame or reframe issues in strategic ways to gain support for their cause (Kingdon 2014)[12]. Kingdon's MSA was developed for a national context in the United States of America to analyse agenda setting in two domains: health and transportation. In this dissertation it is adapted to be used in an international context addressing the integration of agriculture and forests into the climate change domain via agenda setting, explicitly analysing the role of framing in this endeavour, including the use of framing in a strategic manner (see Chapter 3).

1.4.3. Partnership building and framing

The increasing role of non-state actors in global governance, particularly in environmental and sustainability affairs since the 1990s, is widely recognized in the literature (Chester and Moomaw 2008, Arts 2006, Gemmill and Bamidele-Izu 2002, van Asselt 2014, Biermann, Mol, and Glasbergen 2007). This phenomenon, reflected in the 'shift from government to governance' or 'governance without government' (Rosenau and Czempiel 1992), is in part explained by the increasing economic power of the private sector[13] and a rise in highly skilled and influential NGOs (Biermann, Mol, and Glasbergen 2007) that have assumed different key roles such as being advocates of sustainability issues and suppliers of monitoring, innovation and services (Verkooijen and Hoogeveen 2010). It is also a reflection of 'wider changes in the role of states in environmental governance, in tendencies of globalization and growing interdependencies and in ideologies of privatization, deregulation and decentralization' (Biermann, Mol, and Glasbergen 2007: 289). Arts (2006: 14) recognizes the emergence of a 'multi-rule' system with different governance arrangements (different levels of participation of government and non-state actors), which interact and sometimes merge.

Agenda 21, adopted at the Rio Summit in 1992, recognized the key role of non-state actors in achieving sustainable development (United Nations 1992a). It opened the door for their greater participation in decision making and implementation, and also encouraged their involvement in the integration of environmental and developmental considerations in economic and political decision making: 'The responsibility for bringing about changes lies with Governments in partnership with the private sector and local authorities, and in

12 Though, Kingdon (2014) does not refer to 'framing' or 'reframing' explicitly, he addresses framing implicitly in the three streams (e.g. from highlighting certain aspects of a problem and leaving out others, to bargaining and compromising in the political stream to gain support).

13 A World Bank (2008) calculation of the top economies including countries, cities and private corporations, based on GDP and company revenues, as appropriate, identified a mix of 53 countries, 34 cities and 13 corporations on the top 100 (top 3 companies were: Royal Dutch Shell, ExxonMobil and Walmart). Almost ten years later, another study carried out by the NGO Global Justice Now (2018), this time using 2017 annual revenues of countries and private corporations, highlighted that the 31 top economies were countries and 69 were private corporations (the top 3 companies being Walmart, State Grid Corporation of China and Sinopec Group).

collaboration with national, regional and international organizations...' (United Nations 1992a: 8.2). Ten years later, the World Summit on Sustainable Development recognized the key role of multi-stakeholder partnerships (so called Type II partnerships) as a tool for achieving sustainable development through their participation in the implementation of intergovernmental agreements (Eweje 2007, Hens and Nath 2003, Van Huijstee, Francken, and Leroy 2007, Biermann et al. 2007).

In this dissertation, partnerships are defined as: 'collaborative arrangements in which actors from two or more spheres of society (state, market and civil society) are involved in a non-hierarchical process through which these actors strive for a sustainability goal' (Glasbergen 2007: 2). In accordance with Huijstee et al. (2007) different terms have been used to refer to partnerships, such as: 'public-private partnerships/ governance arrangements', 'multi-actor governance arrangements', 'global action networks', 'global public policy networks', 'cross-sector partnerships', and 'self-governing networks'. 'Private steering mechanisms' is also a term used to refer to partnerships (Visseren-Hamakers 2013).

The involvement of a larger number and variety of non-state actors in global sustainability issues - while challenging - is perceived by some as an opportunity for innovation and as a way to benefit from comparative advantages (Verkooijen and Hoogeveen 2010). Partnerships are perceived by some as a positive development of the past decades, for instance, as mechanisms to enhance the participation of more vulnerable groups in matters that affect them, and as a way to fulfil certain deficits in the governance of sustainability issues, such as regulation, implementation and participation (Biermann et al. 2007). Despite this, others have a more critical view. Concerns include governments fearing they will lose control; sustainability not being the main interest of the private sector; partnerships possibly taking over government obligations (Hens and Nath 2003); lack of accountability and monitoring; more power to the private sector and the weakening of the multilateral system; favouring of neoliberal ideologies; the replication of existing power imbalances (Bäckstrand 2006); and Andanova et al. (2003: 19) highlight the 'supply driven' approach of Type II partnerships in lieu of 'demand driven'.

The influence of non-state actors is also reflected in the diversity and increasing number of organizations participating in the framing process (Hulst and Yanow 2014). For instance, Arts (2008) highlights how NGOs have been influential, together with some African countries, in the redefinition of the scale of a problem such as desertification, from a national to a regional and international perspective. Such redefinitions are not insignificant, as they will also determine the solutions proposed and the responsibility of others in this problem.

In this dissertation I will use Glasbergen's (2011) 'Ladder of Partnership Activity' ('the Ladder' from now on). The Ladder has five main steps or levels with a core activity (Glasbergen 2011):

1. Building trust
2. Creating collaborative advantage
3. Constituting a rule system
4. Changing a market
5. Changing the political order

The first three steps are more internal in nature and the last two are more external. Glasbergen warns that the levels do not necessarily follow a chronological order, and some aspects are needed throughout the steps or levels. I will assess the development of a partnership, specifically, the Global Alliance on Climate Smart Agriculture (GACSA), in each of the levels. I will incorporate a framing dimension to the Ladder. Framing will be identified in the way actors strategically promote certain interests in the development and proposed aim of a partnership, but also in determining who is included and excluded. Frames are embedded in global discourses, but at the end, create tensions as some frames are not compatible.

Table 1.1 Conceptual Framework: Framing elements addressed in the Ladder

Ladder of Partnership Activity and Framing dimension	
Level	**Elements analysed in terms of framing**
1. Building trust	• Creating a trusting environment and becoming a trustworthy partner • Readiness to collaborate
2. Creating collaborative advantage	• Finding common ground • Membership considerations
3. Constructing a rule system	• Transactional and procedural elements of the arrangements (decision-making, monitoring, enforcement) • Common problem definition • Hosting and funding the partnership
4. Changing a market	• Legitimacy creation • Solutions, practices and technologies identification
5. Changing the political order	• Social power • Structural changes and scaling

1.5 Objective and research questions

This dissertation is focused on the nexus among the global forest, agriculture and climate change governance systems, and efforts to enhance synergies and reduce trade-offs through improved integration, and specifically the role of frames in these efforts.
In this regard, the main objective of this research is:

> ***To further our knowledge on the role of framing in the integration of global governance in the nexus of forests, agriculture and climate change***

To address this aim, the research starts from a broad perspective, addressing efforts to enhance integration and assess the level of integration in the nexus of the three global governance systems and for pairs of domains (forests-agriculture; agriculture-climate; and forests-climate). This leads to the first research question (RQ1):

> ***RQ1: What efforts have been taken to enhance integration among the forest, agriculture and climate change governance systems and how does framing contribute to the degree of integration?***

Then it analyses efforts to integrate forests and agriculture into the climate agenda at the intergovernmental level. The integration and institutionalization of forests into the climate domain, while neglected for several years, has been more successful than agriculture.
This leads to the second research question (RQ2):

> ***RQ2: How did forests receive an increasingly prominent place on the global climate change agenda, while agriculture is still lagging behind, and what role has framing played in this degree of integration?***

And finally, due to the slow progress in integrating agriculture into the climate agenda, it analyses efforts outside of the intergovernmental arena, in a multi-stakeholder platform, and the role that framing has played in the formation of a partnership that attempts to bridge agriculture and climate change considerations, leading to the third and last research question:

> ***RQ3: How and to what extent has framing played a role in the design and evolution of the Global Alliance on Climate Smart Agriculture (GACSA)?***

1.6. Methodological design

This qualitative research was undertaken between March 2014 and January 2019. It also builds upon the researcher's earlier experience in working on sustainable development issues at the international and national levels for twelve years, in particular, international policy making and implementation at the national level. This research project addresses the integration among the global forest, agriculture and climate change governance systems. It can be considered a nested study in the sense that 'the breakdown is within the principal unit of analysis' (Thomas 2011: 517). In this dissertation, the principal unit of analysis is the integration of the three governance systems. The research builds on three studies (see Figure 1.3). It starts from a broader perspective and then narrows down to specific relationships and interactions within this broader scope, i.e., it starts addressing broader efforts to enhance integration among forest, agriculture and climate change, and then addresses specific efforts using different analytical lenses to have a closer understanding of the conditions and difficulties faced in enhancing integration and the role of framing in this regard:

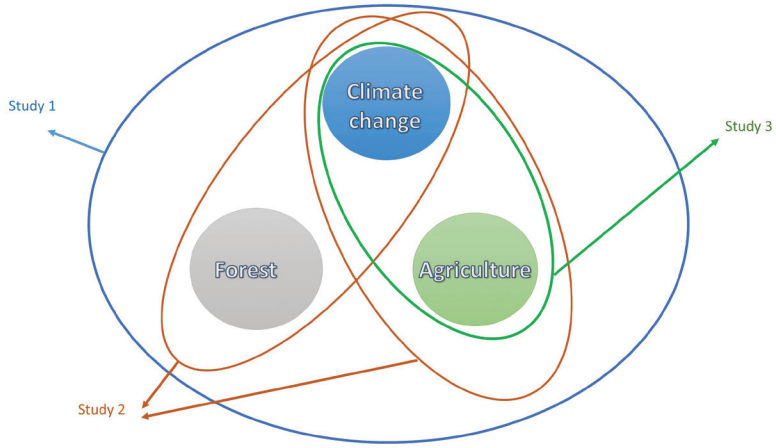

Figure 1.3 Nested study in three levels

Study one involves the overall assessment of the extent and the direction of integration among the three governance systems, addressing first the integration for pairs of domains and then in the nexus of the three (see grey and yellow areas in Figure 1.4).

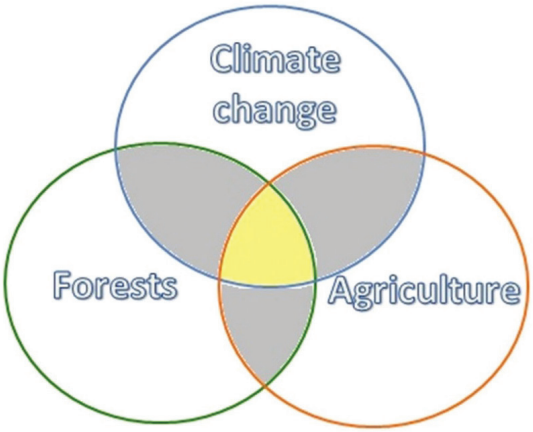

Figure 1.4 Study 1: Integration in the nexus of Forests, Agriculture and Climate Change

Study two compares two parallel cases of integration via agenda setting (see Figure 1.5). The first case addresses the efforts to integrate (tropical) deforestation into the climate agenda and the second case deals with the integration of agriculture into the climate agenda.

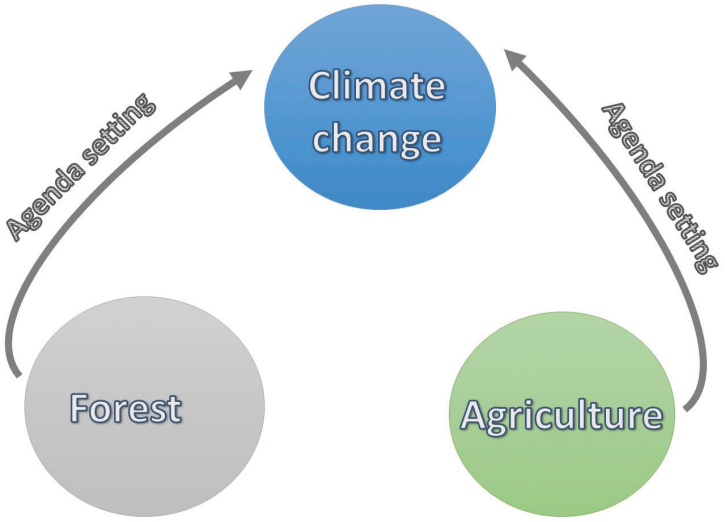

Figure 1.5 Study 2: Integration of forest and agriculture into climate change via agenda setting

Study three: As the integration of agriculture into the climate change governance system has encountered many difficulties at the intergovernmental level (as shown through study two), study three addresses the integration of agriculture and climate outside the intergovernmental arena, in a multi-sectoral partnership (see Figure 1.6). The selected partnership was the Global Alliance on Climate Smart Agriculture (GACSA), as it emerged at a time when its founders were frustrated with the slow pace of negotiations of an agriculture

work program under the UNFCCC. The partnership discussions started around the beginning of this research project, which allowed the researcher to engage from the early stages of the partnership and subsequent phases for almost five years. GACSA also aimed to be an inclusive partnership that was going to bring together different interests groups and sectors, ranging from farmers associations, governments, NGOs, research institutes and the business sector, which would also signify that a mixed frame composition would emerge. Dewulf et al. (2004: 182) considers that the inclusion of new actors builds a 'heterogeneous frame configuration'. This made GACSA a compelling case, in the sense that the researcher could have a closer look at how actors deal with different frames, and in reality, what frames would prevail, who is excluded and who is included - despite the fact that GACSA aims at being inclusive, but also, how and when framing was used in a strategic way.

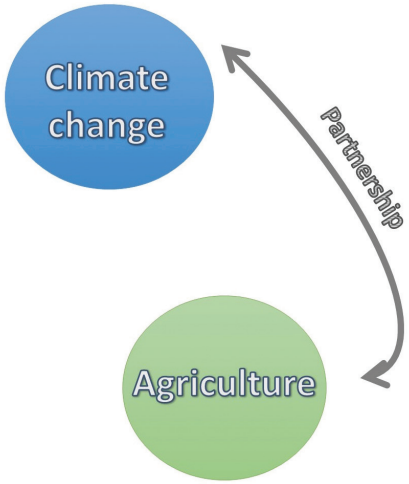

Figure 1.6 Study 3: Integration of agriculture and climate change via a partnership

Data collection and analysis

To guide data collection and analysis, a conceptual framework was developed for each study, as indicated in Section 1.4. A description of the frameworks is addressed in more detail in each of the empirical chapters (Chapters 2, 3 and 4).

For all three studies, a total of 48 interviews were undertaken with key stakeholders such as policy makers, experts, and international organizations active on forest, agriculture and/or climate change at the national or international levels, ensuring a balanced view from northern and southern countries, as well as representation from all sectors (see Table 1.2). Selection included an expert[14] and strategic snowball[15] sampling approach. Interviews were

14 In expert sampling the respondents are 'known experts in the field of interest...' (Kumar 2014: 244)
15 Snowball sampling understood as 'the process of selecting a sample using networks' (Kumar 2014: 244)

held in person or via tele- or video conference, in Spanish or English. Interviewees were asked for permission for recording the interview and transcripts were made for further processing. Audio and written transcriptions, as appropriate, were stored at the Wageningen University database. Interviewees were also asked if they wanted to remain anonymous or had no problem revealing their names.

The total number of interviews per sector for the whole research project entails the following (see annex for a detailed list):

Table 1.2 Number of interviewees per sector

Sector	Number	Interviewees
Research institutes	9	1,2,3,4,5,6,7,8,9
Business[16]	2	10,11
Government[17]	13	12,13,14,15,16,17,18,19,20,21,22,23,24
NGOs	9	25,26,27,28,29,30,31,32,33
Intergovernmental Organizations	8	34,35,36,37,38,39,40,41
Financial Organizations	3	42,43,44
Farmer Organizations	3	45,46,47
Others	1	48
Total	**48**	

Interviews were developed in such a manner that data could be collected for one or more studies of this research. For instance, in study 1, after preparing an interviewees' list, each interviewee was located on a matrix, and depending on his or her background, the interview questionnaire was adapted to cover one or more governance systems and/or different studies. Interviews undertaken during the last study were complementing existing data and themes not covered in earlier studies.

Informal conversations during conferences and meetings also provided relevant data, as the researcher took part in different forest, agriculture and/or climate change events (see Table 1.3). The events attended during the duration of this research include the following:

16 This includes a representative of the World Business Council on Sustainable Development, which embraces around 200 member companies.

17 Including a Minister of Agriculture and a former Minister of Environment and Energy of a Latin American country

Table 1.3 Events attended between March 2014 and January 2019

	Event	Venue and year
1	Preparatory Meeting for a Global Alliance for Climate-Smart Agriculture	The Hague, July 2014
2	Conference of the Parties (COP 20) and SBSTA 41, UNFCCC	Lima, Peru. December 2014
3	Global Landscape Forum (GLF)	Lima, Peru. December 2014
4	Scientific Meeting on Climate Smart Agriculture	Montpellier, France. March 2015
5	SBSTA 42, UNFCCC	Bonn, Germany. June 2015
6	COP 21 and SBSTA 43, UNFCCC	Paris, France. December 2015
7	Strategic Committee, Global Alliance on Climate Smart Agriculture (GACSA)	Rotterdam, The Netherlands. May 2016
8	SBSTA 44, UNFCCC	Bonn, Germany. May 2016
9	Annual Forum, GACSA	Rome, Italy. June 2016
10	Committee on Forests (COFO 23)	Rome, Italy. July 2016
11	Annual Forum, GACSA	Rome, Italy. December 2017
12	Strategic Committee, Global Alliance on Climate Smart Agriculture (GACSA)	Rome, Italy. May 2018[18]

Specifically for *Study 1*, data was obtained through an in-depth literature review and document analysis and semi-structured interviews. For the literature review, bibliographic databases such as Scopus, Web of Science, and Wageningen University Library Catalogue were used. As a first step, existing literature on forest, agriculture and climate change was mapped to gain understanding of the global governance systems, and to identify key actors and institutions. As a second step, the interlinkages among forest, agriculture and climate change were identified. For this, a key word search was done for pairs of domains: Agriculture and Forest; Agriculture and Climate Change; and Forest and Climate Change (see grey areas in Figure 1.4). Forest and agriculture related submissions[19] under relevant intergovernmental processes were analysed, as well as workshop reports. The third part of the analysis addressed the integration of the three governance systems. To do so, literature that addressed the interaction of the three was assessed. In this case, the key words search in the databases included the three of them: Agriculture and Forest and Climate Change (see yellow area in Figure 1.4). To complement and fill in the gaps encountered, the research included semi-structured interviews, as previously indicated.

Content analysis based on the elements provided in the conceptual framework (i.e. main rules and norms; integration efforts and direction of integration; and dominant frames) was

18 Participation via teleconference
19 Submissions are written views submitted by Parties and observers on certain processes or topics.

undertaken in order to identify themes or categories and the frequency of these themes. The coding approach followed (in Study 1, but also in Studies 2 and 3) involved a hybrid between top-down coding (also called 'deductive approach to analysis (from the general to the specifics)') (Kawulich 2017: 771), complemented with bottom up coding (also called inductive approach, 'from the specifics to the general' (Kawulich 2017: 771)). This was undertaken in iterative cycles to improve coding and further data gathering and analysis: 'By moving between use of an inductive approach and a deductive approach to coding and analysis, the interpretation of meaning making in the new study may be enhanced' (Kawulich 2017: 771). Other authors call this 'zig-zag approach', referring to a 'process of iterative data gathering and analysis' till no new themes or codes come up (Rivas 2012: 369). For analysing the direction of integration, a set of criteria were set to categorize the direction. For actors present in one or more governance systems, a further analysis was undertaken to identify which department or ministry was involved (for instance, ministry of agriculture or forests/ environment). As for the identification of dominant frames, content analysis also included the development of a set of matrices for each of the governance systems. Each matrix included the following elements: how main actors define the problem, who they consider to be responsible (who or what caused the problem), and solutions proposed. Common themes or categories were identified and responses and documentation from key actors were classified under each category. Analysis included a retrospective approach[20] (looking back 20-25 years) to observe the evolution of the frames. This first study provided important background for the following two studies.

For *Study 2*, data collection included primary sources, including semi-structured interviews and the organization of an international workshop in October 2016, which brought together over 30 different experts active on forests and/or agriculture and climate change, including NGOs, researchers, policy advisors, government representatives and international organizations. Selection of the participants included expert and snowball sampling. Primary data was also complemented by secondary sources, which included an in-depth literature review and document analysis.

A framework based on agenda setting literature was developed, specifically Kingdon's (2014) Multi-Streams Approach (see Section 1.4.2 and Chapter 3). Content analysis was undertaken based on the elements provided in the conceptual framework: 1) problem (looking at reports, events such as a crisis, natural disasters, etc., and framing); 2) policy (solutions proposed, their technical feasibility, future constraints, conflicting values, and framing); 3) political (international mood, pressure groups, government affairs, bargaining

20 Retrospective approach is understood as 'the collection of data relating to a past phenomenon of any kind. The researcher is looking back on a phenomenon, situation, person, or event or studying it in its historical integrity'. (Thomas 2011: 517). It is based on 'data available for that period or on the basis of respondents' recall of the situation' (Kumar 2014: 139)

and consensus building, and framing). Data was categorized under each of the mentioned elements and classified under common themes, in an iterative cycle as (new) themes emerged. The analysis also identified the policy entrepreneurs for each case study. Under a retrospective approach, the cases were analysed in two different periods, based on when forest (tropical deforestation) and agriculture were introduced into the UNFCCC agenda as starting points (in 2005 and 2011, respectively), until 2015 when the Paris Agreement was adopted. The period preceding their inclusion into UNFCCC was also studied, as it provides important elements within the problem stream (for instance, the emergence of a crisis bringing international attention to an issue).

Finally, in *Study 3*, the main method for collecting involved participatory observation, since it enables 'closer access to informants and activities, and enhanced understanding of the phenomena investigated using other methods' (DeWalt and DeWalt 2011: 110). In this regard, the researcher closely followed the development of GACSA, and had access to key meetings and documentation in the building up and development of the Alliance during this research. For almost five years the researcher participated in several GACSA events, including annual fora, teleconferences, side events, and steering committee meetings, as well as in the Third Global Conference on Agriculture, Food and Nutrition Security and Climate Change held in December 2013 in South Africa, which marks the beginning of the design phase of the partnership. Participatory observation was complemented with other qualitative methods, such as semi-structured interviews with actors inside and outside of GACSA, as well as secondary data sources: in-depth literature review and document analysis, including online information and reports of relevant stakeholders, GACSA's reports, minutes, etc.

Content analysis was undertaken based on the analytical levels identified in the conceptual framework (i.e. the Ladder of Partnership Activity (Glasbergen 2011), with a framing dimension, as indicated in Section 1.4.3. and Chapter 4). A matrix for each level of the Ladder and the elements identified therein was developed, including key concerns in relation to GACSA formation and CSA definition. Data was categorized using this framework, including GACSA documentation since its formation until September 2018, in order to identify common (framing) themes and their frequency in each level or category, as well as framing strategies. In doing so, attention was paid to other aspects and actors which are, explicitly or implicitly, excluded due to the prevailing frames. Particular attention was paid to problem domain and issue framing, to analyse 'which actors include which issues in the problem domain and how they frame these issues...' (Dewulf et al. 2011: 57), but also which other issues are excluded.

The chosen analytical frames and theories, the empirical cases in combination with the methodologies followed for each of them, contribute as a whole to increasing our knowledge of the role of framing in the integration of current global governance in the nexus of forests, agriculture and climate change -- the main aim of this research.

1.7. Dissertation outline

This dissertation consists of five chapters. The current chapter, Chapter 1, provides the background and theoretical and conceptual foundations of this research, as well as the objective and research questions and methods, and a short outline of each chapter.

Chapter 2 covers research question 1, and has been published in a peer-reviewed journal. It addresses the efforts to enhance integration among the three global governance systems and the extent of integration. With interplay management, the nexus approach and framing theory as conceptual framework, it discusses how integration has been enhanced (for instance, through different approaches such as agroforestry or soft law), and how the extent of integration has been unequal for pairs of domains, including on the adaptation and mitigation side for climate change, and for the nexus of the three as a whole. It stresses how the degree of legalization and compatibility of frames are key in determining the extent of integration.

Chapter 3 addresses research question 2, and has also been published in a peer-reviewed journal. It zooms in on specific integration efforts undertaken through agenda setting, and the role of framing in this endeavour. It compares the inclusion of tropical deforestation, specifically REDD+ onto the climate change decision agenda of UNFCCC, with less successful efforts to include agriculture on the climate agenda. The chapter discusses in a structured manner how problems, solutions and politics have been dealt with in both cases, and the framing elements present, as well as how committed policy entrepreneurs were key in raising issues and sustaining efforts throughout the years, as well as in framing issues strategically.

Chapter 4 is under consideration in a peer-reviewed journal and examines research question 3. It addresses efforts undertaken outside the intergovernmental arena to enhance the integration of agriculture and climate change via a multi-sectoral partnership. Grounded in partnership and framing literature, the chapter addresses different steps or levels in partnership formation and operationalization, and discusses the different roles that framing has played at each level, ranging from strategic framing to implicit and unconscious frames, and how differences in frames lead to fragmentation.

Chapter 5 contains the main conclusions and discussion of this dissertation. It concludes that compatibility of frames are a precondition and enabler of integration, and shows how frames can be connected among governance systems. It also concludes that strategic framing can be used to enhance integration, and shows how framing is a skill that can be developed to promote greater coherence and integration. This chapter also provides a model

that summarizes the main insights with regards to when and how frames can facilitate the integration within and among governance systems.

Chapter 2

Framing and Integration in the global forest, agriculture and climate change nexus

This chapter has been published as:

Soto Golcher, Cinthia, and Ingrid Visseren-Hamakers. 2018. "Framing and integration in the global forest, agriculture and climate change nexus." *Environment and Planning C: Politics and Space 36 (8): 1415-1436.* doi: 10.1177/2399654418788566

Abstract

This chapter contributes to the debate on Integrative Governance (IG) by studying integration in the global forest-agriculture-climate change nexus. Since the 1990s the role of the land-use sector, in particular forests and agriculture, has become increasingly prominent in climate change debates due to its vulnerability but also its contribution to global greenhouse gas emissions. Addressing agriculture, climate change and forest policies in an integrated way could therefore create important synergies and reduce trade-offs. This chapter aims to: analyse the extent of integration in current global governance in the nexus of agriculture, forests and climate change, and, to explain this extent of integration. Based on the analysis of secondary data, participation in key events and semi-structured interviews, this chapter concludes that efforts to enhance integration have taken different forms for the different pairs of domains (climate change- agriculture, agriculture-forest, forest- climate change), as well as for the nexus of the three. Integration has been mainly enhanced through soft law, programmes, and integrative approaches (e.g. landscape approach, climate smart agriculture, agroforestry). The analysis also shows that the extent of integration among the governance systems has differed. Interplay management efforts on forests and climate change have been relatively successful. Agriculture and forest, and agriculture and climate have low and modest levels of integration respectively, except adaptation in agriculture, which enjoys higher integration levels. Differences in integration can be explained by the medium to high degrees of legalization and the (in)compatibility of the dominant frames present in the different governance systems. Furthermore, our results show that integration in a governance system with a high degree of legalisation, and dominated by one regime, as is the case in climate change, presents important challenges. In such cases, integration might have greater potential outside the intergovernmental regime through soft law approaches.

2.1 Introduction

Agriculture, Forestry and Other Land Uses (AFOLU) account for almost one quarter of global anthropogenic greenhouse gas (GHG) emissions (IPCC 2014a), with agriculture by itself responsible for most of the deforestation globally (Kissinger, Herold, and De Sy 2012). The global governance systems for forests, agriculture and climate change are therefore closely interlinked. These relationships can compromise or enhance the effectiveness of their governance instruments. However, global efforts to address land-use sector emissions and sinks in an integrative manner have remained modest.

This chapter aims to further our understanding of the current extent of integration in the agriculture-forest-climate change nexus at the global level. This is crucial because addressing these issues in a comprehensive way could create important synergies and reduce trade-offs. The chapter will address the following research questions: 1. What efforts have been undertaken to enhance integration among the three governance systems; and 2. What is the extent of integration among the three governance systems and how can this be explained? The paper contributes to debates on Integrative Governance (IG), defined as the theories and practices that focus on the relationships between governance instruments and/or systems (Visseren-Hamakers 2015), which thus includes the main concepts used in this chapter, namely policy integration, interplay management and the nexus approach (see also Visseren-Hamakers 2018b) and adds a framing layer.

We will start by introducing the conceptual framework and research methods. This is followed by an analysis of each of the three governance systems in terms of degree of legalization and dominant frames. We then focus on the integration among the systems, followed by the discussion of our main findings and conclusions.

2.2. Conceptualizing framing and integration

After the World Economic Forum in 2011, the 'nexus approach' started to be used as a way to learn how different sectors are interconnected, especially in the water, food and energy domains (Biggs et al. 2015, Hoff 2011, Rasul 2016). The nexus approach is conceived as a way to balance conflicting sectoral objectives (Smajgl, Ward, and Pluschke 2016), enhance resource efficiency, and promote policy coherence and integration (Hoff 2011, Rasul and Sharma 2016). The literature also expands to other domains, such as climate change, soil, waste management (Kurian and Ardakanian 2015, Lal 2015), and more recently, the Sustainable Development Goals (SDGs) (Boas, Biermann, and Kanie 2016, Rasul 2016). The nexus approach, just like interplay management and policy integration (discussed below), requires conscious efforts by actors to enhance synergies and avoid conflicts among the different policy domains. However, while the nexus approach gives equal importance to

the different sectors (Benson, Gain, and Rouillard 2015), integration can be limited to one direction, for instance, integrating environmental considerations into other sectors (through Environmental Policy Integration - EPI-) – but not necessarily the other way around. In other words, the nexus concept does not preponderate one sector over the other(s), as in unidirectional integration. The nexus approach could represent a next step towards enhancing policy coherence and strengthening coordination, once the current relationships between the governance systems are better understood.

Our analysis encompasses two steps. Before tackling the research questions, as a *first step*, we characterize the forest, agriculture, and climate change global governance systems. Here global governance is understood as the sum of the different ways in which public and private actors govern certain issues at the international level, acting individually or jointly (adapted from Arts and Visseren-Hamakers (2012). We interpret actors as governmental, non-governmental, private sector, and research organizations active at the international level. The governance is analysed in terms of the degree of legalisation and dominant frames, thereby building on the framework introduced by Karlsson-Vinkhuyzen and Kok (2011), but adding the dimension of frames.

The *degree of legalisation* is analysed in terms of density and types of norms and rules, with norms characterised as 'standards of behaviour defined in terms of rights and obligations' (Krasner 2007 3), and rules as 'prescriptive statements that forbid, require, or permit some action or outcome' (Ostrom 1990 139). The *density of norms and rules* refers to the number of norms and rules in a certain domain, and is related to the concept of fragmentation (Biermann et al. 2009), defined as 'an ongoing proliferation, specialization and diversification of institutions, actor-constellations, norms and discourses active in an issue-area...' (Pattberg et al. 2014 9). For the *types of norms and rules,* we differentiate between soft and hard law. Hard law includes legally binding agreements (e.g. treaties), while soft law refers to non-legally binding agreements (e.g. resolutions, decisions, codes of conduct from public or private actors).

Dewulf (2013: 321) defines *framing* as 'the process by which issues, decisions or events acquire different meanings from different perspectives'. Depending on the frame used, different reactions can be expected, including why something is a problem, who or what is accountable for the problem, and what needs to be done about it (Nisbet 2009). Frames will have an effect on what interests are promoted or ignored (Schön and Rein 1994), who takes part and who is prevented from participating, and how power positions are dealt with, but will also have an effect on defining the scale of a situation or problem (Dewulf 2013).
For the *second* step, we draw on the literature on EPI, interplay management, and framing. This step focuses on the integration among the three global governance systems (including the integration between pairs of governance systems, and integration among the three

systems). We analyse the degree and direction of integration, interplay management efforts, and explain the extent of integration, and thus zoom in on our second research question.
Based on the EPI literature (e.g.Lafferty and Hovden 2003), (policy) integration is understood as the inclusion of sector-specific objectives, considerations or concerns into other policy domains. The term policy integration is closely related to the concept of interplay management: 'In essence, interplay management is about policy integration at the international level' (Oberthür 2009: 374). Interplay management can be defined as 'conscious efforts by any relevant actor or group of actors, in whatever form or forum, to address and improve institutional interaction and its effects' (Stokke and Oberthür 2011: 6); in other words, efforts to enhance the relationships between various institutions.

Integration can be achieved through different *interplay management efforts,* including communication, policies and programs, legalisation (adoption of norms and rules) (Karlsson-Vinkhuyzen and Kok 2011), and framing. Here, we thus answer the first research question.

In step two we will also use the previous analysis on degree of legalisation and dominant frames in the three global governance systems to explain the extent of integration. This will also contribute to answering the second research question. Understanding the degree of legalisation is relevant for interplay management and integration because, as indicated by Karlsson-Vinkhuyzen and Kok (2011 304), 'a domain with a high degree of legalisation … can stand on its own, and can resist interaction with other, weaker regimes'. Or, the other way around, when there is a small number of norms and rules, new ones could more easily be developed (Karlsson-Vinkhuyzen and Kok 2011). The role of frames in interplay management has been less explored. Its consideration, however, can help explain why efforts to achieve integration are more or less successful.

With this conceptual lens, this chapter addresses several gaps in the IG literature (Visseren-Hamakers 2015, 2018a). It contributes by providing an explanatory analysis, aiming to better understand why the relationships in the nexus are the way they are, and also provides enhanced insights into the relationships among the governance systems. These issues have received relatively little attention in the IG literature to date.

Table 2.1 provides an overview of the conceptual framework.

Table 2.1 Conceptual Framework

Research step	Description

1. Global governance	Characterizing the governance of the systems in terms of:
	• Degree of legalization
	  • density of norms and rules
	  • types of norms and rules
	• Dominant frames

2. Integration	• 'Mapping' the extent and direction of integration among the systems;
	• Analysing interplay management efforts;
	• Explaining extent of integration through:
	  • degree of legalization
	  • dominant frames

2.3. Methodology

The research took place from March 2014 to February 2016. Research methods include a literature review and document analysis, which included over 80 articles from peer reviewed journals, books, reports from different international organizations; data bases (e.g. food and agriculture data in FAOSTAT, World Development Indicators from the World Bank), websites from key stakeholders, 60 submissions by countries and stakeholders to United Nations Framework Convention on Climate Change (UNFCCC), the United Nations Forum on Forest (UNFF) and other relevant intergovernmental processes, as well as primary sources, which include 26 semi-structured interviews with actors who have been involved with one or more of the following areas: international or regional forest (46% of the interviewees), agriculture (69%) and climate change (77%) policy processes. They represented different sectors: government (35%), intergovernmental organizations (15%), research institutes (12%), NGOs (23%), regional financial organizations (8%), business (4%), and farmers' organizations (4%). Sources also include 20 informal conversations with different informants directly involved in the analysed governance systems. The interviewees included current and former negotiators, facilitators, experts, and policy makers, who shared their own personal view. Data collection involved a strategic snowball sampling approach. The sampling also ensured that interviewees represented the views of both northern and southern countries. Interviews were conducted in person or via video conference, and transcripts were made for further analysis. Some of the interviewees preferred to stay anonymous.

Frames were identified by reviewing documents and presentations from various key actors involved in each sector, participation in conferences, as well as from interviews. This part of the analysis focused on the way a problem is conceptualised, who is regarded as responsible to take action, and ways forward, utilising a retrospective approach in the interviews to understand how frames have evolved and topics have been reframed, in particular over the past 20-25 years (starting with the Rio Summit and adoption of the UNFCCC in 1992). Once

the different frames were identified, the dominant frame was identified as the one that most of the international actors supported and used. The mapping of main international actors in the governance systems was also undertaken and we have included this data where relevant.

2.4. Global Agriculture, Forest and Climate Change Governance

2.4.1 Global Agriculture Governance

The various actors involved in global agriculture governance have different priorities and conceptualisations of what the main agricultural challenges are, who is responsible for agriculture governance, and what actions are needed to address the challenges. However, dominant frames indicate that due to population growth, particularly in developing countries, the world will be faced with the challenge of feeding over 9 billion people by 2050 (United Nations 2013). The United Nations Food and Agriculture Organization (FAO) estimates that by 2050, the world will require 70% more food than in 2009 (FAO 2009b). Dominant frames have thus focused on the need to increase agricultural production as a way to ensure food security and promote economic growth. The vulnerability of agricultural systems to climate change and the call for adaptation is also highlighted. In some cases, the need to take into account environmental considerations when increasing agricultural production is recognised. In short, dominating frames have a 'productivist' approach, justified in the need to increase food supply under changing climate conditions. Solutions focus less on matters related to equity, changing diets, unsustainable consumption and production patterns. Some main actors such as the World Food Programme (WFP) (2016) stress that there is enough food in our planet to feed everybody, and attribute hunger to poverty and inequality, not to lack of food (Holt-Giménez et al. 2012).

Multiple norms and rules govern agriculture, in a combination of soft and hard law instruments. The main rules and norms governing agriculture can be classified as follows (as confirmed by several interviewees):

- Legally binding instruments that deal with or affect agriculture, in particular, the World Trade Organization (WTO) and the Agreement on Agriculture (AoA), Trade Related Aspects of the Intellectual Property Rights Agreement (TRIPS), and the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement). Various bilateral, plurilateral and regional trade agreements also have important implications for agriculture.
- Resolutions, decisions and voluntary instruments of international organisations, such as the Principles for Responsible Agricultural Investment (PRAI) that respect rights, livelihoods and resources (2009) developed by the World Bank, United Nations Conference on Trade and Development (UNCTAD), FAO and the International Fund for

Agriculture Development (IFAD); Codex Alimentarious (for food standards) developed by FAO and World Health Organization (WHO).

- Resolutions adopted by Multilateral Environmental Agreements (MEAs), which have implications for agriculture (e.g. Stockholm Convention on Persistent Organic Pollutants).
- Agricultural policies of large economies, which have important repercussions on the production and international flow of agricultural goods, such as the Common Agricultural Policy (CAP) of the European Union (EU).
- Private instruments, such as codes of conduct (e.g. from the pesticide industry), eco-labelling & certification, traceability standards, etc.

The different organisations developing those norms and rules approach agriculture from their own frames (e.g. biodiversity, climate change) and not in an integrative manner. For instance, MEAs have a more restrictive approach, while the WTO promotes free trade and liberalisation. The consequence is that rules and norms can overlap or even conflict with one another. Moreover, subsidies in the North, intellectual property rights, and genetically modified organisms (GMOs), among others, continue to be divisive issues within the global agriculture governance system (as several interviewees confirmed).

The global agriculture governance system can thus be characterised as fragmented, with a medium to high degree of legalisation (see Table 2.2). Many of its norms and rules are in the soft law realm, which makes them voluntary, with some hard law, particularly in trade-related agreements. In general, a multitude of actors are involved in global agriculture governance, but in a very fragmented and uncoordinated way. There is no overarching framework or actor with sufficient authority to resolve emerging conflicts. In the absence of a dominant actor or overarching institution, the WTO and bilateral trade agreements - as well as the World Bank with its agriculture portfolio and financial resources – are playing key roles, as confirmed by our interviewees, framing agriculture with an emphasis on increasing production, market access and trade liberalisation (Wise and Murphy 2012). Some interviewees consider that FAO's current niche seems to be more at the technical expertise level and country implementation, with a large number of country offices enabling this role.

2.4.2.Global Forest Governance

The many stakeholders involved in global forest governance have different, sometimes conflicting interests and priorities (Hoogeveen and Verkooijen 2010). Forest policies have evolved over time in response to different frames, including forests having no economic or social value or 'empty lands' in many countries (Morales et al. 2011, ECLAC et al. 1971, Larson et al. 2010), to providers of important ecosystem services for human wellbeing (Millennium Ecosystem Assessment 2005b, United Nations 1992a), and framing forests as the 'lungs of

the Earth'. Currently, there is an important emphasis on the role of forest in climate change, in line with increased media coverage and donors prioritizing their resources towards climate change instead of other issues (Veríssimo et al. 2014). The conceptualisation of forests thus evolved from 'lungs' to 'sinks'. Sustainable forest management (SFM)[21] also remains an important frame (Arts and Babili 2013). The sustainable management of forests is currently considered in the context of climate change as well.

Main rules and norms governing forests are a combination of forest-related or forest-focused norms and rules (Humphreys et al. 2010) and can be classified as follows (see also Arts and Babili 2013):

- Legally binding agreements that directly address some aspects of forests, for instance, the International Tropical Timber Agreement (ITTA).
- Legally binding agreements and relevant resolutions that relate to forest or have an impact on forests, such as the Aichi targets of the UN Convention on Biological Diversity (CBD).
- Non-legally binding instruments emanating from different global conferences or fora, such as the 'Forests Principles' agreed in 1992 at the Rio Conference.
- Voluntary instruments and relevant resolutions or decisions of international organisations (e.g. FAO, United Nations Environment Programme (UNEP), United Nations Forum on Forests (UNFF)).
- (Public-)private mechanisms, for example, certification schemes (Visseren-Hamakers 2013)
- Regional or bilateral forest agreements, such as the Regional agreement for the management and conservation of natural forests ecosystems and forests plantations development of Central American countries, or the EU's Forest Law Enforcement, Governance and Trade (FLEGT) initiative.

Global forest governance lacks an integrative approach to forests. For instance, each MEA approaches forests from its own perspective: climate change, biodiversity, etc. For the UNFCCC, a ton of carbon is a ton of carbon, no matter whether it originates from a primary forest or a plantation, which creates tension with the biodiversity objectives under the CBD (Caparrós and Jacquemont 2003, Kim 2004). UNFF, on the other hand, could be one of the organisations that could address forests in an integral way insofar as it has a broad mandate, but it lacks political impact, effectiveness and is underfunded (Blaser et al. 2014, Dimitrov et al. 2007, Humphreys 2006b). Some interviewees argue that UNFF has lost some of its mandate to the UNFCCC, since UNFF members are prevented from addressing climate change, a key issue for forests, outside the UNFCCC.

21 SFM refers to the management of forest based on the principles of sustainable development (economic development, environmental protection and social development), as defined by the UN General Assembly (2007)

For several years, the pressure from some for an all-encompassing globally binding commitment (hard law) has resulted in the proliferation of global soft law instruments instead, including the Forest Principles of 1992 and the Non-Legally Binding Instrument on All types of Forests of 2007, which was renamed in 2015 as the 'United Nations Forest Instrument'.

Overall, the global forest governance system is fragmented, characterised by the absence of an overarching framework and the prevalence of soft law arrangements within and outside the UN umbrella, with some legally binding treaties addressing specific aspects of forests. Hence, we consider its degree of legalisation as medium: global forest governance has overlapping norms and rules, competition for scarce resources and an inability to address forests in an integrative manner (Hoogeveen and Verkooijen 2010).

2.4.3 Global Climate Change Governance

While initially considered an environmental concern, today climate change is seen as also encompassing health, security, development and trade issues, amongst others. In general, the dominant frame of climate change has centred around the need to reduce GHG emissions – a focus on mitigation. Still, adaptation continues to be key for many countries, as highlighted by various interviewees, and is becoming more prominent in policy decisions (e.g. the Paris Agreement (UNFCCC 2015), or the Green Climate Fund (2014) decision to invest 50% of its resources in adaptation and 50% in mitigation). There are, however, important tensions between mitigation and adaptation priorities (Dewulf 2013, Somorin et al. 2012), with mitigation overall having more emphasis and resources allocated (Harvey et al. 2014, Buchner et al. 2011: 7). Several of our interviewees agree that the 'common but differentiated responsibility' principle is starting to depart from the distinction between developed and developing countries to become more self-defined (e.g. national determined contributions – NDCs), in accordance with national capacities and priorities. There is a greater recognition - or pressure - for developing and emerging economies to take a more proactive role, especially in light of current and projected emissions by some. As UNFCCC Executive Secretary mentioned in our interview: 'The way in which countries are differentiated among themselves has evolved, [...] it is gradual along a line where each one can determine how to contribute and seek their place in that line' (interviewee 39).

Global climate change governance is characterised by its multi-institutional nature (Gehring and Oberthür 2008). The governance system is a mix of hard and soft law. Main rules and norms can be classified as follows:

- Legally binding agreements directly addressing climate change, mainly the UNFCCC, including the Kyoto Protocol and Paris Agreement.

- Legally binding agreements and relevant resolutions that relate to or have implications for climate change, such as the Vienna Convention for the Protection of the Ozone Layer.
- Non-legally binding instruments agreed in different global conferences or fora that address climate change as part of their outcomes. For example, the Small Island Developing States Accelerated Modalities of Action (Samoa Pathway), or the Addis Ababa Action Agenda on Financing for Development.
- Voluntary instruments, relevant resolutions and decisions of international organisations (e.g. FAO's Voluntary Guidelines to support the integration of Genetic Diversity into National Climate Change Adaptation Planning).
- IPCC methodology guidelines for national GHG inventories.
- Relevant decisions and agreements of major economies and different international fora or organisations with limited membership, e.g. the Major Economies Forum on Energy and Climate, the OECD, the G8 and G20.
- Private mechanisms, like voluntary carbon market arrangements and certification standards, e.g. International Sustainability and Carbon Certification (ISCC), the Gold Standard and the Carbon Disclosure Project (Plaza Esteban, Visseren-Hamakers, and Jong 2014)
- Regional climate change agreements, e.g. the EU Emissions Trading System (ETS), CARICOM's Regional Framework for Achieving Development Resilient to Climate Change.

While most actors recognise the core role of the UNFCCC in establishing global climate change responses, there are cases in which non-UNFCCC arrangements, initiatives or partnerships lack consistency with UNFCCC norms and rules. In some cases the compatibility of certain norms and rules are challenged (see the case of hydrofluorocarbons (HFCs) under Kyoto Protocol and the Montreal Protocol in UNEP (2012)). In other cases, governments, in particular several major economies, are trying to use international trade policies to address climate change challenges (European Commission 2015, Executive Office of the President 2013, ICTSD 2014). Some of our interviewees highlighted that trade, to a large extent, is shaping how countries address climate change.

Overall, global climate change governance has a high degree of legalisation. It can be characterised as a fragmented, converging governance system, dominated by a legally binding treaty but also including soft law, involving a wide array of actors. This has led to duplication, incoherence, competition for resources and as highlighted by some, 'climate governance […] shows indications of conflictive fragmentation' (Biermann et al. 2009: 23). The global governance of the three domains is summarised in Table 2.2.

Table 2.2 Overview of global governance for agriculture, forests and climate change

Element/Domain	Agriculture	Forests	Climate Change
Dominant frames	Increase production	Carbon sinks	Mitigation
Degree of legalization	Medium to High	Medium	High
	Fragmented governance system, with a combination of soft and hard law instruments (in particular trade)	Fragmented governance system, with mainly soft law instruments	Fragmented, converging governance system, with UNFCCC providing an important framework

2.5. Integration in the forest, agriculture and climate change nexus

2.5.1. Climate Change and Forests

Forest and climate change integration can currently be considered rather extensive and multi-directional (Figure 2.1), although full integration of forests within the climate change policy domain, especially in the UNFCCC, has proven to be difficult. With the introduction of Reducing Emissions from Deforestation (RED) in developing countries on the agenda of the UNFCCC in 2005, integration was enhanced. Attempts for integration before that had generated limited results, for instance, in the Marrakech Accords, where reforestation and afforestation were included as part of the Clean Development Mechanisms (but deforestation was excluded) (Den Besten, Arts, and Verkooijen 2014).

RED was a joint initiative of Costa Rica and Papua New Guinea (2005), supported by other countries. It can be regarded as an interplay management initiative aimed at integrating forest and climate change issues. In 2007, RED was reframed as REDD+, as the concepts of forest degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries were included. REDD+ was incorporated as a mitigation mechanism under the Bali Action Plan in 2007 (UNFCCC 2007 Art 1.b.iii) and in the Paris Agreement (UNFCCC 2015). Developed countries are also using the forest sector to achieve their mitigation targets.

The integration of climate change considerations into the forest domain, on the other hand, has happened more easily, especially in terms of adaptation and more recently for mitigation through REDD+ in the case of developing countries, and other related initiatives (UN REDD by FAO, UNEP and UNDP and the World Bank's Forest Carbon Partnership Facility - FCPF). Other efforts include the revision of the Forest Stewardship Council (FSC) certification standards to include carbon sequestration and storage issues (FSC 2015a).

The compatibility of the dominant frames in the forest and climate change governance systems - forest as sinks and climate change as mitigation - has facilitated integration. Framing forest concerns as REDD+ was not only compatible with mitigation objectives, but also explicitly placed some level of responsibility with developing countries. The latter is compatible with the evolution of the principle of common but differentiated responsibilities, with increased action expected also from developing countries. The degree to which science and increased technological capacity has influenced the integration process cannot be underestimated, by informing policy (e.g. satellite images, CO2 sequestration potential of different tree species) and reinforcing the important role of forests in climate change. The relatively slow integration of forests into the climate domain can be explained in part by the high degree of legalisation and the centralised, complex and core institutional position of UNFCCC in the climate change governance system. The comparatively smooth integration of climate considerations into the forest governance system can be partly explained by the fact that the latter is highly fragmented and lacks a dominant legal framework.

2.5.2. Climate Change and Agriculture

The integration of climate change and agriculture has been relatively modest and not fully multidirectional. Efforts to enhance integration have been undertaken mainly on the adaptation side. For years, actors have sought to integrate agriculture considerations in a more comprehensive way into climate policy, in particular in the Subsidiary Body of Scientific and Technological Advice (SBSTA) under the UNFCCC, but progress has been limited (CCAFS, CTA, and Farming First 2013, Kalfagianni and Duyck 2015) and its consideration has remained voluntary (FAO 2010c, CCAFS, CTA, and Farming First 2015)[22]. Both the UNFCCC (United Nations 1992b) and its Paris Agreement (UNFCCC 2015) recognise the need to safeguard food production. There is, however, no 'coherent vision and a set of incentives or financial mechanisms' to achieve mitigation and adaptation goals in agriculture (Zurek et al. 2014: 42). Interplay management efforts to achieve policy integration among these two domains have actually faced a 'forum kicking' dynamic, i.e. when some governments push for a discussion on climate change and agriculture, for instance in FAO, other governments indicate that the right forum to address climate-related policy is the UNFCCC; and when the integration is raised in the UNFCCC, others argue that agriculture should be discussed in WTO, not UNFCCC.

As confirmed by some interviewees, major concerns, in particular from many developing countries and other opponents of the inclusion of an agriculture work programme within SBSTA, mainly relate to mitigation:

22 Recent developments in 2017 indicate that some progress has been made by UNFCCC when the Conference of the Parties (COP 23) requested SBSTA and the Subsidiary Body for Implementation (SBI) to address issues related to agriculture in a joint manner (known as 'Koronivia joint work on agriculture'). (UNFCCC 2017)

- Inclusion will lead to developed countries using the mitigation qualities of agriculture to offset their industrial emissions and extend carbon markets, without making any real progress in fulfilling their mitigation responsibilities under the UNFCCC (Paul 2014).
- Agriculture being an important sector in the economy of many developing countries (World Bank (2015)), some of them perceive that agriculture mitigation might lead to targets, interfering with domestic policies related to food security (Zurek et al. 2014).
- Methodological challenges such as additionality, leakage, baselines, monitoring, and permanence (Paul 2012), and lack of technical capacity or general gaps or uncertainties in scientific knowledge.
- UNFCCC covers all anthropogenic emissions with an economy-wide, not sectoral, approach[23]. Some Parties thus consider that there should not be a specific focus on agriculture; they are afraid it may result in trade barriers, including border tax adjustments.
- Developing countries are dealing with increasing populations, which will translate into the need for more food production. This, with current practices, will mean higher GHG emissions.

On the other hand, those actively pursuing the comprehensive integration of agriculture into the climate change governance system[24] argue that the UNFCCC (or SBSTA) can provide guidance for better incorporation of agricultural considerations; identify barriers to implementation and policy options; improve scientific understanding and technical solutions and methodologies; and promote a comprehensive and integral treatment of the land-use sector in terms of both mitigation and adaptation (CCAFS, CTA, and Farming First 2015, Submissions from Costa Rica, European Commission, Japan, New Zealand, Environmental Integrity Group, USA in UNFCCC 2012, FAO 2010c). Some developed countries are interested in fully integrating agriculture into climate change governance in order to have a 'level playing field' in terms of trade competitiveness, since developing countries are currently not subject to the same quantifiable emission reductions that several developed countries are (under the Kyoto Protocol).

Opportunities for governments to integrate agriculture into the climate domain currently exist, for instance in the reporting process or on a discretionary basis. Examples include through the UNFCCC's NAMAs (Nationally Appropriate Mitigation Actions), aimed at reducing emissions in developing countries by 2020 (UNFCCC 2007) and the NDCs[25]. However, there are some concerns over consistency and comparability among countries. Countries have also addressed adaptation concerns of agriculture through the Nairobi Work Program on Impacts, Vulnerability and Adaptation, and several SBSTA workshops (UNFCCC

23 There are, however, specific discussions on the specific rules to account for emissions and removals resulting from Land-Use, Land-Use Change and Forestry (LULUCF) as well as on REDD+.
24 Such as Australia, New Zealand, USA, EU, and organisations like FAO, World Bank
25 See also Richards, Gregersen, et al. (2015)

2013b, 2014). Countries can also apply for resources through the Green Climate Fund to link adaptation and mitigation with agriculture (GCF 2016).

Progress on integrating climate change into agriculture has been mainly on adaptation. Rosenzweig and Tubiello (2007 860) indicate that 'adaptation in agriculture is actually the norm rather than the exception'. Agricultural productivity, and consequently food security, will be affected if climate change considerations are not integrated into agriculture policies and practices. This has translated into large research efforts and investments to make agriculture more resilient to climate change (Rimmer 2012, Wise and Murphy 2012). Several of our interviewees agree that the need for adaptation is perceived as being more urgent than mitigation. Since 2009, however, the concept of Climate Smart Agriculture (CSA) has gained some strength as a new approach. It is built around three pillars, namely increased productivity, adaptation, and also mitigation (FAO 2013).

The fact that the dominant frames in the climate and agriculture governance systems sometimes conflict can explain the relatively modest integration. While climate change seeks to reduce emissions with a sense of priority, agriculture's 'responsibility' to feed the growing population has been associated with the need to increase productivity[26], which will increase GHG emissions. Some of our interviewees state that the intensity of agricultural emissions (per hectare, per animal, etc.) could be reduced, but in absolute terms, emissions will be higher. The perceived need to produce more food and the related increased GHG emissions hinders the comprehensive integration of agriculture and climate policies, allowing only for partial integration, namely on adaptation. The need to make agriculture more resilient, especially if framed as a food security[27] concern, supports the frame of - and it is a prerequisite for - increasing productivity. In some cases, more resilient agriculture may actually also lead to lower emissions as a co-benefit (IPCC 2014c, Zurek et al. 2014), which facilitates its integration.

The high degree of legalisation of the climate change governance system can also contribute to explaining the modest integration of agricultural concerns. The fragmented nature of and lack of an overarching institution in the agricultural governance system, on the other hand, can also contribute to the explanation of the easier – although also modest – integration of climate change concerns, mainly in terms of adaptation.

26 Some use productivity interchangeably with food security, though it is not the same. Food security addresses elements of access, nutrition, health and equity. (World Food Summit 1996)

27 Interviewee 35 indicated that the Committee on World Food Security (CFS) managed to have a discussion in 2012 on climate change because the focus was on food security's vulnerability to climate change.

2.5.3. Agriculture and Forests

Interplay management efforts aimed at policy integration between agriculture and forests are rather weak in both directions. Both sectors have a history of following separate, unconnected tracks. Several actors have undertaken some initial interplay management efforts to enhance integration, through e.g. soft law, communication, or programmes of financing organisations. Some of these actors are active in one system or the other, but some are involved in both (e.g. the FAO).

For the integration of agriculture considerations into forest governance, some examples include the Ministerial declaration of the UNFF, which recognised the need to address the drivers of deforestation and forest degradation (UNFF 2015). There is also a call for the integration of SFM and the commitments of the Forest Instrument into, among others, sectoral policies (UNFF 2015), although agriculture is not mentioned directly. The International Union of Forest Research Organizations (IUFRO) has tried to create more awareness about the contribution of forests to food security, stating that while its importance is recognised at the local level, national and global strategies are missing (IUFRO 2015).

As for the integration of forests into the agriculture domain, examples include the Principles for Responsible Investment Agriculture and Food Systems of the Committee on World Food Security (CFS). It considers, amongst its principles, respect for forest land tenure (principle 5) and calls for 'preventing, minimising and remedying, as appropriate […] negative impacts on forests' (CFS 2014 principle 6). Through different initiatives and public-private partnerships, several NGOs, governments and private sector actors are promoting 'zero deforestation' commitments in the supply chain of agricultural products.[28]

Actors involved in both domains, such as the World Agroforestry Centre, also have been actively promoting the integration of trees into agriculture (World Agroforestry Centre 2017). The IPBES (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services) has also made some efforts to integrate forests and agriculture, with biodiversity as the bridge between the two.

Of the MEAs, the United Nations Convention to Combat Desertification (UNCCD) seems to have a relatively integrative approach to forests and agriculture, since it focuses on addressing land degradation, including through sustainable land management and agroforestry practices (UNCCD 2015). The GEF, the financing mechanism of the three Rio Conventions (UNFCCC, CBD and UNCCD), has a comprehensive approach to its focal area on Land Degradation, and highlights the landscape approach as a tool 'for an integrated natural resources management' (GEF 2014 137), defining it as '... a framework to integrate policy and practice for multiple land uses, within a given area, to ensure equitable and sustainable

28 See for instance the Tropical Forest Alliance in https://www.tfa2020.org

use of land while strengthening measures to mitigate and adapt to climate change' (Reed, Deakin, and Sunderland 2015). The landscape approach has also been promoted by the FAO, EU and several NGOs and research institutes.

The friction between the dominant frame in agriculture governance of higher productivity levels (and consequently the need for more productive land) and forest's dominant frame of the need for forest conservation for carbon sequestration and storage prevents the integration of global policies in these domains. Also, multiple efforts to integrate agriculture and forest considerations in both directions have not led to significant results due to both domains having a medium and medium to high density of institutions, with no overarching framework.

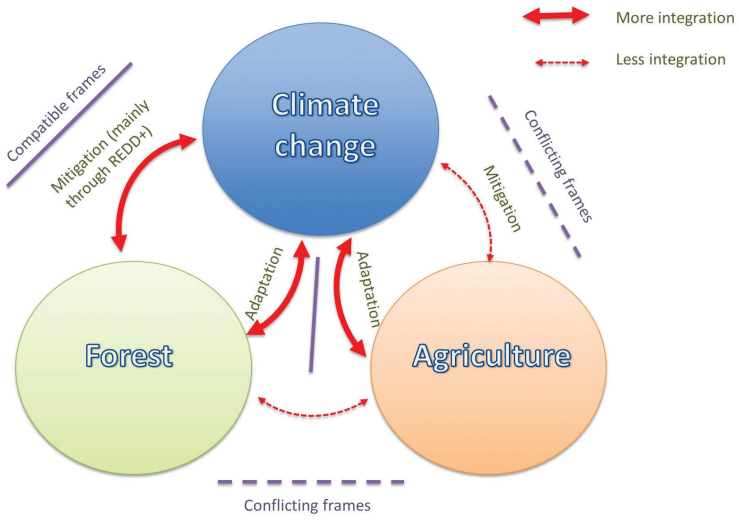

Figure 2.1 Extent of integration among agriculture, forest and climate change governance systems

2.5.4. Integration among the three domains

Efforts aimed at integrative policies among the three governance systems have been limited and promoted mainly through programmes (in particular of financing organisations), approaches or by framing the domains as being related, as a first step.

Financing mechanisms have been key in influencing decision making at the national level and channelling global and national policies towards more integrated land-use approaches. Examples include the World Bank's Forest Investment Plan and the Biocarbon Fund Initiative for Sustainable Forest Landscapes (ISFL), which, besides forests, also includes sustainable agriculture. Climate Smart Territories (CST) and Climate Smart Landscapes (CSL) are promoted

by research institutes (e.g. CATIE 2015), and several NGOs (e.g. Conservation International, Environmental Defence Fund) combine CSA and integrated landscape management approaches (Harvey et al. 2014, Scherr, Shames, and Friedman 2012). As for framing, the IPCC, for example, in its latest report addressed the land-use sector in one single chapter for the first time (Chapter 11: Agriculture, Forestry and Other Land Use (AFOLU) (IPCC 2014a)) and not separated as in previous reports.

Also, REDD+ (representing the integration of forest and climate change) can affect agriculture and vice versa. The success of REDD+ will depend on the capacity of stakeholders to address the underlying drivers of deforestation and cooperate with other sectors affecting land use (Corbera, Estrada, and Brown 2010, Kissinger 2013, Salvini et al. 2014). Currently, agriculture is only weakly addressed in REDD+ as one of the many drivers of deforestation (UNFCCC 2013a Decision 15/CP.19).

Also, while several national REDD+ strategies do consider matters related to agriculture, on many occasions REDD+ goals are compromised by agriculture development plans, and few REDD+ strategies address this conflict (Kissinger 2013, Kissinger, Herold, and De Sy 2012). Some governments are not willing to formally integrate agriculture within REDD+[29] because agricultural emissions may be larger than forest-related avoided emissions, causing the country to lose out on REDD+ payments. As long as agriculture is lightly framed as one of the drivers of deforestation within REDD+, some Parties have 'tolerated' its inclusion. The three dominant frames in the nexus are simply not compatible.

Interplay management efforts to integrate agriculture, forest and climate change need to deal with a high density and complexity of norms and rules. Since the UNFCCC dominates the development of climate-related norms and rules, efforts to agree on climate change matters in other intergovernmental fora creates some resistance, since governments do not want to weaken the UNFCCC (Karlsson-Vinkhuyzen and Kok 2011) or pre-empt its negotiations. This reduces the possibilities of enhancing the integration of the three domains through further legalisation in intergovernmental fora, and opens up the door for soft law approaches.

2.6. Discussion

The conceptual framework applied in the analysis above combines several concepts under the umbrella approach of Integrative Governance, including the nexus approach, integration, interplay management and framing. This has allowed a rich analysis of the relationships between the three studied governance systems.
While building on Karlsson-Vinkhuyzen and Kok's (2011) approach to integration through interplay management, adding the consideration of framing theory has allowed for a

29 Personal communication with government representative from Asia. 3 December 2014

more comprehensive analysis of why integration can take place (or not), beyond factors such as degree of legalization. The presence of *compatible frames* can have a synergistic effect; interplay management efforts can be more successful if frames are compatible, as shown for the forest and climate change governance systems. On the other hand, the existence of *conflicting frames* can generate negative effects on interacting institutions, and integration efforts can be hindered or even be done in vain, as shown in the agriculture and climate change governance systems (Table 2.3). The analysis of frames has also helped in understanding difficulties in, and opportunities for, enhancing interplay management. Framing can be consciously used by actors as a strategy to encourage or hinder integration. For instance, reframing forest as sinks in the context of UNFCCC, where mitigation is a priority, provided the opportunity for tropical forest to be integrated in the climate change domain.

Table 2.3 Frames in the context of integration

Compatibility of frames	Effect on integration
Compatible	Synergistic or neutral
Not compatible nor conflicting	Synergistic or neutral
Conflicting	Negative

The incorporation of a framing lens into the policy integration literature also enhances attention for the politics of integration, in line with the IG approach. An IG perspective promotes attention for relationships between governance instruments or systems, since a better understanding of these relationships can be used to enhance coordination, or, in cases where the relationships are more political or contentious, inform negotiations on addressing trade-offs. Thereby, the approach highlights the need for more Integrative Governance in order to address complex and highly interrelated sustainable development issues, while recognizing the role of politics and power.

Expanding the nexus approach research to other sectors, like agriculture, forest, and climate change, and understanding the direction of integration, dominant frames and the interplay among these domains has provided important insights into the appropriateness of the nexus approach. Considering the non-preponderance of one sector over the other one in the nexus approach (Benson, Gain, and Rouillard 2015), its use for improving policy coherence and coordination will be more successful when integration has the potential to be multidirectional. In order for integration to become multidirectional, frames need to compatible among the domains, and the governance systems need to have a low or medium degree of legalization.

In general, while integration can take place in different forms, a domain with a high degree of legalization would favour the development of norms and rules to address an issue,

however, this can take more time and face more obstacles. In a domain with a low degree of legalization, softer approaches might be sufficient and faster, but these might have a smaller global impact (e.g. individual programmes, projects).

2.7 Conclusions

This chapter has aimed to further our understanding of the current extent of integration in the agriculture-forest-climate change nexus at the global level. The analysis has shown that coherent policies and integrative approaches are urgently needed, since these three governance systems are highly interlinked.

The global agriculture, forest and climate change governance systems are characterised by a multitude of actors and institutions and a great diversity of frames. Efforts aimed at integration to enhance synergies and avoid conflicts among the systems have taken different forms, in particular for the different pairs of domains in the nexus. Integration has been mainly promoted through soft law, programmes, promotion of integrative approaches (e.g. the landscape approach, CSA, and agroforestry), and framing. The integration at the nexus of the three domains is still more incipient, although there is potential, with the advantage of having several actors (e.g. FAO, UNEP, World Bank, UNCCD) involved in two or all of the domains and international financial mechanisms already promoting integration.

The extent of integration has been different for the separate pairs of governance systems. So, while forest and climate change enjoy an extensive two-way integration for both mitigation and adaptation, agriculture and forest, and agriculture and climate represent lower and modest levels of integration respectively, with the exception of climate change adaptation in agriculture. The differences in integration can be explained by the degree of legalisation and the dominant frames in the different governance systems.

The analysis of the degree of legalisation of each governance system has shown that multidirectional integration is a tremendous challenge in a context of multiple actors and a high density of norms and rules, particularly if one of the governance systems has a strong set of norms and rules dominated by one regime, as is the case in climate change. This high degree of legalization of the climate change governance system makes it less open to interaction with others, or to accept that new climate change norms and rules are developed outside of the UNFCCC, confirming Karlsson-Vinkhuyzen and Kok's (2011) view on this. This also indicates that integration has greater potential to be enhanced from the direction of the 'strong' domain to the others (one-way integration). The prevalence of soft instruments for forest and agriculture and the absence of a strong legally binding agreement has given more space and flexibility to integrate emerging or urgent issues, such as climate change, into their governance systems. The dominant frames in the governance systems have also

influenced the extent of integration. Especially the dominant 'productivity' frame in the global agriculture governance system has inhibited the integration with forest and climate change mitigation concerns.

Interplay management efforts in these three governance systems could perhaps be best enhanced outside the formal intergovernmental processes, as is already happening through initiatives such as the Global Alliance on Climate Smart Agriculture (GACSA). Working outside of the highly politicised intergovernmental regime might lower the 'threat' of potential legally binding targets, and allow us to move beyond the separation of mitigation and adaptation, thereby opening up more opportunities for effective integration through landscape approaches.

Interplay management efforts among the three domains are also influenced by factors, policies or decisions that fall outside their scope, for instance water scarcity, energy prices, or trade. Regarding the latter, international markets and financial incentives sometimes seem to have more – negative or positive - influence on behaviour than the norms and rules regulating natural resource use. Trade and trade agreements are clearly influencing the way the governance systems interact and the trade-offs they encounter. More research on the role of trade in the climate change, forest and agriculture nexus would be beneficial for understanding the driving forces leading to unsustainable land-use change and developing the most effective policies to address these issues.

Political will and (inter-)national institutional and organisational reforms are necessary in order to move from conflicts to synergies in the interaction among the three governance systems. Current relatively successful approaches such as REDD+ or CSA alone will not be sufficient to ensure durable and sustainable results. Transformative changes are needed to address fundamental inconsistencies, such as perverse incentives, lack of multi-sectoral policies, and impacts of global unsustainable consumption patterns.[30] The recognition by the international community of the need for transformational change, and the role of Integrative Governance in such change, among others in the Aichi Targets and SDGs, provides opportunities for further enhancing the synergies in the agriculture-forest-climate nexus and beyond.

30 See for instance (Cuypers et al. 2013, Jonas, Glen, and Robbie 2013)

Chapter 3

Seeing the forest, missing the field: forests and agriculture in global climate change policy

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Abstract

As the climate change problem becomes more eminent, there is more pressure to increase efforts in all sectors and countries. The land-use sector is seen as an option to reduce greenhouse gas (GHG) emissions, and key in achieving a balance in GHG emissions and removals by sinks by 2050, as envisioned in the Paris Agreement. This chapter presents two comparative case studies within the climate change arena and aims to understand how and why: 1) tropical deforestation and forest degradation have secured a prominent place on the international climate change agenda, while 2) agriculture has not secured a prominent place. We use the agenda-setting multi-stream approach (MSA), while adding a framing layer. Based on primary data (including an international workshop with forest and agriculture experts, interviews, and participation in key international meetings), and secondary data, this chapter concludes that REDD+ is an example of how a condition was framed as a problem, a viable proposal was developed, and political will and receptivity was shown, all of which placed REDD+ high on the agenda, and generated its legal and methodological framework over the course of ten years. In these efforts, the role of policy entrepreneurs was key. Agriculture, on the other hand, is a more complex sector with multiple interests and millions of stakeholders. The consideration of agriculture, in particular its mitigation component, is therefore a highly contentious issue. The fear of new binding commitments and the potential threat to food security and production, and the lack of a convincing proposal that addresses the multiple values of agriculture has impeded substantive progress. Also, the absence of a committed policy entrepreneur limits the place of agriculture in the climate change agenda under the United Nations Framework Convention on Climate Change.

3.1. Introduction

Within global environmental governance, the consideration of the conservation and sustainable use of forests has proven to be a difficult and contentious task. Deforestation continues to be a challenge in many countries. The inclusion of tropical deforestation as part of the climate agenda was neglected for several years until 2005, when it became an agenda item under the United Nations Framework Convention on Climate Change (UNFCCC), to be further considered as part of the Subsidiary Body for Scientific and Technological Advice (SBSTA) programme of work: 'Reducing emissions from deforestation in developing countries: approaches to stimulate action' (UNFCCC 2005). Ten years later, forest was the only sector explicitly mentioned in the Paris Agreement through its specific attention to REDD+ (Reducing Emissions from Deforestation and forest Degradation in developing countries). By being in the UNFCCC decision agenda, REDD+ started as a mitigation mechanism that evolved throughout the years into something more complex and encompassing (for instance, to include safeguards). REDD+ has triggered a number of actions, initiatives and funds at the national and international levels. The inclusion of REDD+ in policies, plans and programmes has happened relatively fast (Den Besten, Arts, and Verkooijen 2014).

Several researchers have indicated that REDD+ success is highly dependent on how actors manage to address the main drivers of deforestation and forest degradation and work together with other sectors influencing land-use decisions, including agriculture (Corbera, Estrada, and Brown 2010, Kissinger 2013, Salvini et al. 2014). Despite the strong linkages between forests and agriculture, including the fact that agriculture is one of the main drivers of deforestation (Geist and Lambin 2002, Hosonuma et al. 2012, Kissinger, Herold, and De Sy 2012), the sectors have a history of following separate policy tracks. To add to the complexity, agriculture's emissions are expected to increase significantly over the coming decades (Wilkes, Tennigkeit, and Solymosi 2013, Climate Focus, IIASA, and UNIQUE 2011). Efforts to include agriculture in the climate domain in an integral manner - including both mitigation and adaptation - are more recent than those related to forest. Integration has happened more extensively for adaptation than mitigation (Soto Golcher and Visseren-Hamakers 2018). In general, 'agriculture has not had a very prominent role in any of the agreements emerging from the climate negotiations. While some progress has been made recently, this has been painfully slow.' (Kalfagianni and Duyck 2015: 2). While the Nationally Appropriate Mitigation Actions (NAMAs) and the Nationally Determined Contributions (NDCs) have opened a window for addressing agricultural mitigation (and/or adaptation), consistency among countries is still lacking. Being part of the decision agenda will allow for a discussion to take place in an structured and potentially action-oriented way, to develop common understandings regarding how to address certain complexities particular to the sector, identify synergies with forest/REDD+, and develop appropriate mechanisms and incentives. As indicated by one of our interviewees: '...when looking at the number of

initiatives caused by the REDD+ discussions such as UN-REDD, FCPF, FIP, as well as many regional and national initiatives it looks like agriculture is missing this kind of by-product' (interviewee 12).

This research aims to understand how forests, and in particular tropical deforestation and forest degradation, managed to play an increasingly prominent role on the global climate change agenda, including its consideration in the Paris Agreement (UNFCCC 1992: article 5), while agriculture is still lagging behind. The paper also attempts to marry the agenda-setting multiple streams model with framing theory in order to enrich our understanding of agenda setting in international arenas. It addresses the following questions:

1. How and why have tropical deforestation and forest degradation received a prominent place on the international climate change agenda since 2005?
2. How and why has agriculture not received a prominent place on the international climate change agenda?

This chapter will start by presenting its conceptual framework and methods. This will be followed by an analysis of key dimensions that may be conducive for the consideration of tropical deforestation and agriculture in the international climate change agenda. It wraps up with a discussion and conclusion.

3.2. Conceptual Framework: Agenda setting and framing

Agenda setting research has centred around the dynamics by which 'New issues or ideas may well meet resistance from the prevailing political arrangements, but they sometimes break through to create dramatic policy changes' (Baumgartner, Green-Pedersen, and Jones 2006: 961). Over time, various frameworks have emerged to explain such breakthroughs. Explanations have varied from: (1) the urgency of societal problems in need of collective problem solving (Dunn 2016); to (2) powerful elites that control agenda setting in accordance with their interests (Bachrach and Baratz 1962); (3) public opinion or mass media that pressure policy makers to act (Downs 1972); (4) policy entrepreneurs who frame problems and solutions in 'attractive' ways and seek opportunities in politics to 'sell' these to policy makers (Kingdon 2014); and (5) disruptive periods in which 'external forces', such as disasters or economic crises, force policy makers to change their views and policies (Jones and Baumgarter 2012). This paper particularly builds upon the fourth framework (Kingdon), because, firstly, it focuses on a *specific* and *single* policy field (climate change), thus excluding more systemic and structural theories of agenda setting (like the second and the fifth ones). Secondly, it particularly analyses the *internal* dynamics of this policy field, excluding the third and fifth approach, although external factors to agenda-setting will definitely be referred to in our analysis below. Finally, the paper shares with Kingdon

(and others) the critical perspective on 'rational choice' approaches in policy analysis, thus excluding the first approach.

Kingdon is the founding father of the so-called 'multiple streams approach' (MSA). It can be viewed as a critical approach towards 'rational policy analysis' (policy cycle framework, stages approach, comprehensive rationality (see Dunn, 2016; Sabatier 2007). The various stages in a policy process (problem identification, policy design, decision-making, solutions, etc.) do not neatly follow one another; instead, Kingdon considers these as rather autonomous 'streams' of problems (or issues), policies (solutions), and politics (decision-making) that can cause policy change when they meet. For this to happen, windows of opportunity should be opened, for example through elections, referenda or politically relevant events or crises, because political and bureaucratic systems have a 'natural' tendency to resist change. However, the creation of windows of opportunity and the merging of streams do not happen automatically, but should be facilitated by 'policy entrepreneurs' who – for example through targeted issue framing or resource mobilization – bring about policy change. Examples might be high-positioned civil servants, (new) political leaders, lobbyists, charismatic personalities, or Nobel Prize laureates. With this image of the policy process, Kingdon also departs from the possibility to *design* policies rationally. Policymaking is not rational at all; rather, it is ambiguous, selective, biased and imperfect (Cairney and Jones 2016).

Although MSA and framing theory have a lot in common, including a critical perspective on rational policy analysis and design, Kingdon does not refer to framing theory in his work. Yet some MSA followers do, because framing processes play crucial roles in how problems, policies and politics are defined and coupled (Sarmiento-Mirwaldt 2015). We too would like to make the framing aspect in MSA more explicit by linking Kingdon to framing theory (Dewulf 2013, Benford and Snow 2000, Schön and Rein 1994). We do so by adding another layer to the MSA framework. While we follow the analytical dimensions per stream, we also explicitly ask ourselves what framing processes have been implied in our case studies to put more emphasis on discursive dynamics and entrepreneurship. Such framing processes are crucial for successful agenda setting, in our view.

As mentioned, the emergence or disappearance of issues on the agenda is, according to Kingdon (2014), the result of three independent streams that interact with one another. The analysis in this chapter will follow these streams, and whether or not they meet, in the case of tropical deforestation and agriculture, as part of international climate change policy. Based on MSA and framing theory, the following analytical dimensions are used:

1. *Problems stream:* According to Kingdon (2014), indicators, focusing events, and feedback are the means through which policymakers become aware of problems:

   - Indicators: can be generated for routine monitoring or special studies. They can assess the magnitude of a situation and recognize if there is a variation in the problem situation.
   - Feedback: can come in different forms, for instance established routine evaluations, or programmes' 'systematic monitoring' (Kingdon (2014: 101), e.g. performance assessment of a programme, or through more informal means like complaints from the public. In the empirical section ahead, both indicators and feedback will be analysed together, as indicators can be part of feedback.
   - Focusing events, such as crises or disasters, are an indication of an existing problem, which might be widespread and not an isolated case.

   The role of framing in this stream is key in determining if there is a problem (turning an issue or a condition into a problem), how the problem is defined, its scale (national or international), and how information is used and gathered to support the existence and framing of a problem (Dewulf 2013). Framing of the problem will be key in determining the solutions (stream 2 ahead) (Benford and Snow 2000, Dewulf 2013, Rochefort and Cobb (eds) 1994).

2. *Policy stream:* Solutions are proposed in policy processes, sometimes independently from the other two streams (Kingdon 2014). Kingdon (2014) identifies three criteria for a proposal to make it into the agenda:

   - technical feasibility: a proposal without inconsistencies, implementable, and 'specifying the mechanisms by which an idea would be brought into practical use' (Kingdon 2014: 131).
   - values not in conflict with the policy community: values are different among and within groups of policy specialists, including their ideologies.
   - anticipation of future constraints: some constraints can be so serious or difficult to overcome, that specialists decide not to go further, including budget limitations, politically unacceptability, or strong public opposition.

   Pralle (2009: 786) also highlights that: 'the public and policymakers must be convinced not only that we should do something […], but that we can.'

   The relevance of framing in this stream is observed in the creation of policy solutions, for instance 'framing the range or nature of options to be considered' (Dewulf 2013:

323), how uncertainty is framed, what will be measured and monitored and how, who will take action, who will benefit, and who is excluded (Dewulf 2013).

3. *Political stream:* Kingdon's approach is focused on the national level, and considers elements of national mood, changes in administration or ideologies, and pressure groups (Kingdon 2014) as influencing agenda setting. In an international context things might be more complex, as many more interests and actors are involved, while national governments' positions are influenced by these elements or forces back home. Coalition building and bargaining, characteristic features of the political stream (Kingdon 2014), are both key in a national and international context. This chapter will look at the international political context in which discussions are taking place, pressure groups, government matters (e.g. jurisdiction), the coalitions, and bargaining.

   Analysis of framing in this stream will assist us in understanding how things were framed to respond to the prevailing political mood, the bargaining and coalition building process, and address the pressure groups.

Kingdon also differentiates the general government agenda from a decision agenda ('a list of items up for actual action' (Kingdon 2014: 20)). According to Kingdon (2014), the three streams need to coincide so that an issue can pass onto the decision agenda. In other words, there should be a problem identified, a solution available, and the right political environment for an item to be taken forward to the decision agenda.

The role of policy entrepreneurs is key in making the three streams meet (Kingdon 2014). They advocate for certain proposals and pave the way for when the window of opportunity opens (Kingdon 2014). They are '... central in moving a subject up on the agenda and into position of enactment' (Kingdon 2014: 180). An active policy entrepreneur increases the opportunities for an item to become part of the decision agenda, while chances are decreased 'if no entrepreneur takes on the cause, pushes it, and makes the critical couplings when policy windows open' (Kingdon 2014: 205). Entrepreneurs can use framing in a strategic way to highlight some problems over others, select certain indicators, frame solutions in attractive ways, and respond to certain political developments.

We have also added the role of 'champions' to our analysis as a complement to our adapted Kingdon's framework. We define them as renowned international figures that use their reputation to advocate for certain issues, directly or indirectly supporting policy entrepreneurs in their efforts.

Our conceptual framework can be summarized as follows:

Table 3.1 Conceptual framework (adapted from Kingdon (2014))

Agenda setting & Framing	
Problem stream • Feedback (including indicators) • Focusing events • Framing Policy stream • Technical feasibility • Values • Anticipation of future constraints • Framing Political stream • International mood or climate • Pressure groups • Governments • Consensus building • Framing	Window of opportunity and role of policy entrepreneurs and champions

3.3 Methodology

The research was undertaken from March 2014 through September 2017, and included an in-depth literature review, document analysis, and field research. Primary data collection included organizing an international workshop for policy advisors, researchers and practitioners working on forests, REDD+ and/or agriculture on October 11-12, 2016 in Wageningen, The Netherlands. It brought together over 30 experts from 14 countries and organizations across Africa, Latin America, Asia, and Europe, as well as representatives from the Food and Agriculture Organization (FAO), United Nations Environment Programme (UNEP), International Fund for Agriculture Development (IFAD), and Latin America Development Bank (CAF).

This was complemented with 25 semi-structured in-person or video interviews with REDD+ and agriculture experts involved in climate change mitigation, adaptation and/or food security matters at the national or international levels. Interviewees and workshop participants represented northern and southern countries, as well as intergovernmental organizations, NGOs, business and research institutes. Interviews per sector (Table 3.2) and workshop participants per sector (Table 3.3) are illustrated below.

Table 3.2 Number of interviewees per sector

Sector	Number
Governments	9
Intergovernmental Organizations	6
NGOs	4
Research institutes	3
Regional Financial Organizations	1
Farmer Organizations	1
Business	1
	25

Table 3.3 Number of workshop participants per sector

Sector	Number
Governments	8
Intergovernmental Organizations	5
NGOs	2
Research	13
Regional Financial Organizations	1
Others	3
Total	**32**

Data collection also included participatory observation in different climate change negotiations, and forest, landscape and climate smart agriculture (CSA) events (Table 3.4).

Table 3.4 International events attended for fieldwork

	Event	Venue and year
1	Conference of the Parties (COP 20) and SBSTA 41, UNFCCC	Lima, Peru. December 2014
2	Global Landscape Forum (GLF)	Lima, Peru. December 2014
3	Scientific Meeting on Climate Smart Agriculture	Montpellier, France. March 2015
4	SBSTA 42, UNFCCC	Bonn, Germany. June 2015.
5	COP 21 and SBSTA 43, UNFCCC	Paris, France. December 2015
6	Strategic Committee, Global Alliance on Climate Smart Agriculture (GACSA)	Rotterdam, The Netherlands. May 2016
7	SBSTA 44, UNFCCC	Bonn, Germany. May 2016
8	Annual Forum, GACSA	Rome, Italy. June 2016
9	Committee on Forests (COFO 23)	Rome, Italy. July 2016

Data was analysed in a systematic manner, identifying the elements of the conceptual framework for the case studies, and conducting more interviews or searching for additional secondary data where gaps existed.

3.4 Forests on the climate change agenda

Key efforts to introduce global forest policy can be traced back to 1992 at the Rio Conference on Environment and Development, where some governments were aiming for a Forest Convention, representing a hard law approach, but the agreement remained in the soft law realm with the adoption of the so-called 'Forest Principles'. After Rio, for several years and at different fora (e.g. United Nations Forum on Forests (UNFF), UN Convention of Biological Diversity (CBD), and International Tropical Timber Organization (ITTO)), some actors were looking for stricter legislation and incentives to reverse the deforestation trend, but results were only modest. With the prominence of climate change in the international arena, and considering the role played by forests in tackling climate change, negotiations leading up to the Kyoto Protocol in 1997 provided a window for afforestation, reforestation and deforestation projects to be included as part of the Clean Development Mechanism (CDM), but tropical deforestation was ultimately left out (Schlamadinger et al. 2007).
To understand why REDD+ became part of the Paris Agreement in 2015, one has to go back ten years to when the need to reduce emissions from deforestation in developing countries was introduced and put on the UNFCCC agenda.

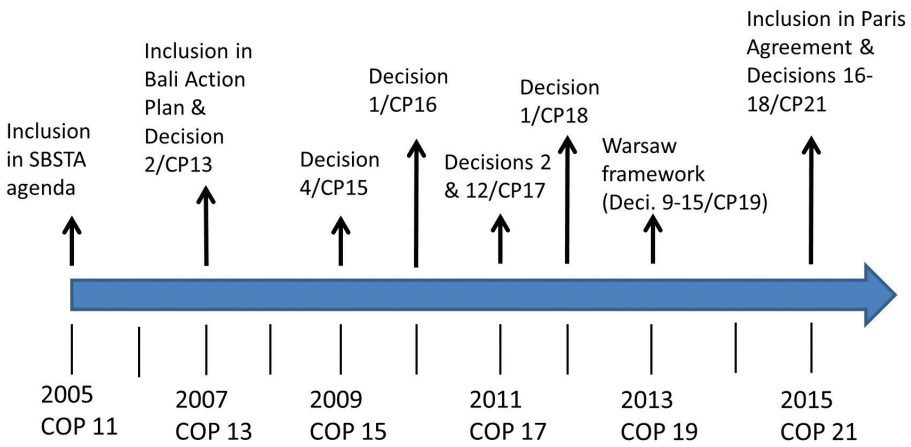

Figure 3.1 Timeline of REDD+ related decisions 2005-2015[31]

31 Adapted from http://unfccc.int/land_use_and_climate_change/lulucf/items/6917.php

3.4.1. Problem stream

Feedback, including indicators: Several reports were published in the early 2000s, highlighting the significance of land-use change emissions. For instance, in 1998 SBSTA requested the Intergovernmental Panel on Climate Change (IPCC) to produce a special report for LULUCF (Schlamadinger et al. 2007), which was instrumental in the process leading up to the establishment of specific rules for land use, land-use change and forestry (LULUCF) under the Kyoto Protocol. This report highlighted that land-use change emissions, in particular deforestation, accounted for about one fifth of carbon emissions during 1990s (IPCC 2000). Years later, the IPCC Fourth Assessment report attributed 17.4% of global anthropogenic GHG emissions in 2004 to forestry (including deforestation) (IPCC 2007a), still an important percentage.

Focusing events: Several extreme weather events also provided some grounds for justifying broader actions in addressing climate change. For instance, in 2002 a peak was reached in the number of persons that suffered from weather-related disasters; this included 300 million people in India who were victims of a serious drought, and 100 million Chinese affected by a sandstorm (CRED and UNISDR 2015). Hurricane Katrina seriously affected the United States in 2005.

Framing: Two major problems were framed: firstly, the seriousness of the climate change threat. Raising the climate change issue in the minds of people as a serious threat, not only in poor but also in rich countries, reinforced climate change as a serious and global problem. In 2006 the movie 'An Inconvenient truth' by Al Gore raised awareness on the climate change problem, and consequently, the pressure to find solutions. One year later, the IPCC as well as Al Gore were awarded the Nobel Peace Prize for their contribution to and dissemination of climate change knowledge and identification of countervailing measures (Nobel Foundation 2007). Secondly, the focus was expanded from fossil fuel related emissions to other sectors, such as land-use[32]. In this context, to reinforce the magnitude of the problem, those supporting deforestation considerations in the climate regime utilized 'alarming' comparisons such as '…the damage done by deforestation is comparable to the damage done by the world's largest polluter, the United States.' (Stiglitz 2006: 178). Deforestation was thus framed as a GHG emission problem, which was backed-up by several reports and media pointing at land-use change, in particular tropical deforestation, as being responsible for about 17-25% of GHG emissions (IPCC 2000, Le Quéré et al. 2009, IPCC 2007a, Houghton 2005, Eliasch 2008, Kindermann et al. 2008, FAO 2005). This data was used, despite the fact that by the end of the 2000s, emissions generated by land-use change, in particular deforestation, were no more than 11-12% of global GHG emissions (IPCC 2014a, Le Quéré et al. 2009). This decrease was attributed to higher fossil fuel emissions, less deforestation and a rise in afforestation (IPCC 2014a).

32 We define the land-use sector as including: agriculture, forestry and other land-use (IPCC 2014a)

3.4.2. Policy stream

Technical feasibility: during the 1990s and early 2000s, measuring land-based carbon was believed to be complex, and it was repeatedly dropped from the agenda (interviewee 40). In the process leading up to RED/REDD+ and its later inclusion in the Paris Agreement, scientific knowledge was enhanced (e.g. satellite remote sensing technologies), knowledge of different tree species and their carbon content increased and methodologies and guidelines were developed (DeFries et al. 2007, IPCC 2000, GOFC-GOLD 2009, IPCC 2003, 2006), resulting in an overcoming of the fear of dealing with land-use carbon (Soto Golcher, Zurek, and Busink 2016 and interviewee 40). Other technical considerations that had prevented agreements in the past, such as additionality, permanence and leakage (Pistorius 2012), were addressed over the course of SBSTA discussions throughout the years.

Values: The common but differentiated responsibilities (CBDR) principle has been a core foundation of UNFCCC, even in 1997, when the Kyoto Protocol was negotiated, with industrialized countries (Annex 1 countries) having quantifiable emission reduction targets, while developing countries had no quantifiable obligations. REDD+ was proposed as a voluntary mechanism to reduce emissions from deforestation **in and by** developing countries, **but supported by** developed countries through appropriate incentives. This not only reinforced the CBDR principle, but also helped ease concerns about national sovereignty, as it respected each State's authority over its natural resources, also a key principle in the UNFCCC (United Nations 1992b).

Anticipation of future constraints: One key constraint for many developing countries towards accepting any commitment or reference related to reducing deforestation was lack of funding. By 2005, the global economy was strong and developed countries were confident about paying developing countries incentives for reducing emissions in the forest sector (interviewee 40). Resources pledged by developed countries provided a trustful environment (Soto Golcher, Zurek, and Busink 2016), which allowed negotiations to progress (interviewee 40). At the same time, the hopes for well-functioning carbon markets in the near future gained the support of some, and the rejection of others, who critiqued market-based approaches (Den Besten, Arts, and Verkooijen 2014, BASIC Governments 2013, Greenpeace 2008, Humphreys 2008). In 2005, the EU introduced the European Trading Scheme (ETS), however, LULUCF credits were excluded from it (Ellison, Lundblad, and Petersson 2014). This, together with complex methodologies and modalities, discouraged private investors from investing in LULUCF credits (Capoor and Ambrosi 2007). On the other hand, the second half of 2000 saw the emergence of several bills to regulate GHG emissions in the USA, some of which included land use as an offset option (Resources for the Future 2008). Its potential inclusion in the compliance markets was seen as a positive signal by some and as an anticipation of future constraints by others (e.g. polluting industries).

Framing: In its early stages, RED was promoted as a cheap and cost-effective way to reduce emissions. It was framed as 'low hanging fruit' to address one quarter of emissions. Both the Stern report (2007) and Eliasch Review (2008), which had worldwide outreach during that time, confirmed that reducing emissions from deforestation was a highly cost-effective measure. Reducing forest-related emissions was reframed from a 'payment for doing nothing' (interviewee 23) to compensation for the lost income or opportunity costs of keeping their forests standing and also for recognizing forests' role in absorbing carbon from the atmosphere (Soto Golcher, Zurek, and Busink 2016 and interviewees 23 and 40).

The policy stream for REDD+ and its key components can be summarized with this excerpt of Norwegian Prime Minister Jens Stoltenberg's statement during UNFCCC/COP13 in Bali:

> *'Through effective measures against deforestation we can achieve **large cuts** in greenhouse gas emissions - **quickly and at low cost**. The **technology is well known** and has been available for thousands of years. **Everybody knows how not to cut down a tree**. Therefore I am pleased to announce that the Norwegian government is prepared to increase its support to prevent deforestation in developing countries to more than **500 million US dollars a year**. I urge other countries to join us in these efforts.' (Stoltenberg 2007)*

3.4.3. Political stream

International mood or climate: The Kyoto Protocol entered into force in 2005, and its first commitment period was from 2008-2012. During this time, the technical discussions revolved around what the rules were going to be for the second commitment period. The political attention was focused on if and how something more inclusive could be developed. Firstly, to address the fact that the United States was not part of the Protocol, and secondly, emerging economies had an increasing responsibility in global emissions, but had no quantifiable targets, undermining any progress that could be achieved via the Protocol in terms of emissions' reductions. This allowed stakeholders to start thinking of new proposals and ways for addressing climate change, e.g. land-use emissions in developing countries, referring to the original 1992 UNFCCC text, in which forests were explicitly referred to as sinks.

Coalition building: The Coalition for Rainforests Nations (CfRN), led by Costa Rica and Papua New Guinea, was pushing for the consideration of RED from 2005 onwards, but the group needed the support from other developing countries to increase pressure on developed countries, and to counterbalance Brazil's opposition to RED. During COP13 in Bali (2007), African countries were strongly insisting that 'forest degradation' should be part of a future mechanism to address emission reductions in the forest sector. At the same time, other countries, such as India, wanted to include conservation, while China was pushing

for sustainable management of forests and enhancing forests' carbon stocks. The result was what we now know as REDD+: 'reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries'. Because REDD+ accommodated all those interests, support for it became stronger and more inclusive (Soto Golcher, Zurek, and Busink 2016 and interviewee 23).

The OPEC countries were also key, because they were needed to allow the process to move forward. They saw REDD+ as an opportunity to deviate attention from fossil fuel usage (interviewee 12). REDD+ would allow developed countries to compensate their emissions and continue buying oil (interviewee 40).

These political developments allowed the developing countries to find a common position and negotiate as a group through the Group of 77 and China (developing countries' negotiating block).

Pressure groups: played an important role in the development of REDD+, as shown in Table 3.5.

Table 3.5 REDD+ Pressure groups

Pressure Group	Position on REDD+
NGOs (Non-Governmental Organizations)	Against: • Concerned about the use of forest carbon credits and markets to offset emissions in developed countries instead of achieving reductions at the source (Den Besten, Arts, and Verkooijen 2014, CEPLAES et al. 2013), including Greenpeace, Third World Network, Friends of the Earth. • Worried that other ecosystem services or local populations would be affected (Chhatre et al. 2012). In favour: • Those who visualized co-benefits such as biodiversity conservation, addressing indigenous peoples' concerns (Chhatre et al. 2012 and interviewee 33), including Conservation International, The Nature Conservancy (TNC).
Indigenous Peoples	Some groups were strong opponents of REDD+ because of concerns over land tenure security and displacement, need to participate in REDD+ process, and indigenous rights (Larson 2011, Osborne, Bellante, and von Hedemann 2014, Chhatre et al. 2012).
Private sector (timber, logging, construction, furniture)	In particular from Europe and Japan. Interested in addressing illegal logging, via certification schemes (interviewee 33), EU FLEGT (Forest Law Enforcement, Governance and Trade), etc.

Governments: In 2010, 76% of forests worldwide were owned by the State (FAO 2015), thereby allowing governments to have a direct influence on REDD+ and interest in its funding. Furthermore, ministries of the environment are often the focal point[33] of the UNFCCC and forests usually fall within their jurisdiction, simplifying decisions pertaining to them.

Additionally, intergovernmental initiatives outside the UNFCCC, like the Forest Carbon Partnership Facility (FCPF) by the World Bank and UN-REDD by FAO, UNEP and UNDP, were also key in feeding negotiations and providing evidence (Visseren-Hamakers, Arts, and Glasbergen 2011). Bilateral funding has also supported developing countries in operationalizing REDD+ at the national level, through, i.a. capacity building and improving forest governance (EU REDD Facility 2017, Watson, Patel, and Schalatek 2016). Main donors include Norway, USA, Germany, Japan and the United Kingdom (Norman M. and Nakhooda S. 2014).

Framing: The main framing aspect that can be identified is 'inclusion' to obtain political support and accommodate different interests. Firstly, the inclusion of the land-use sector, considering that current efforts on traditional sectors (e.g. energy, transportation) were not going to be enough or would be undermined by deforestation emissions (Stiglitz 2006). Secondly, the inclusion of developing countries in mitigation actions (Den Besten, Arts, and Verkooijen 2014). Finally, the consideration of other forest-related activities, such as forest degradation, the items listed under the '+' part of REDD+, and safeguards[34].

3.4.4. Policy entrepreneurs

The main policy entrepreneur has been the Coalition for Rainforest Nations (CfRN). The Coalition had an important role in strategizing and planning the inclusion of RED/REDD+ in the international climate agenda, and getting the needed support. While in 2005 there were many unresolved questions and concerns at the policy and political levels, policy entrepreneurs worked hard to develop coalitions, and have SBSTA address the main concerns. They also were key in changing some countries' perceptions regarding risks (leakage, permanence, etc.) (interviewee 33), and framing the solutions in a politically acceptable way. At the same time, as a policy entrepreneur, Norway's early support in this process, both financially and politically, can be considered key for raising and sustaining REDD+ in the international climate change agenda, as it demonstrated the will of developed countries to support this endeavour early in the process, thereby opening the door for others to follow.

33 See http://unfccc.int/parties_observers/parties/national_focal_points/items/9336.php

34 Indigenous peoples' concerns, as well as those from donors and other stakeholders, led to the creation of social and environmental REDD+ Cancun safeguards (Chhatre et al. 2012; Den Besten et al. 2014; Pistorius 2012).

Policy entrepreneurs undertook significant efforts outside of the negotiations to gain support from close constituencies (e.g. Alliance of Small Island States (AOSIS) group, Commonwealth countries, Central American Integration System (SICA)) (interviewee 40). By COP11 in Montreal, there were at least 90 countries supporting or at least not blocking the negotiations (interviewee 40).

The role of 'champions' is worth recognizing. In the case of REDD+, we can highlight for instance Joseph E. Stiglitz, Nobel Prize Laureate in Economics (2001), who worked very closely with the CfRN and wrote a book titled 'Making globalization work', addressing the need to provide positive incentives for developing countries to keep their forests standing (Stiglitz 2006); Johan Eliasch (see above); Prince Charles with his support for tropical rainforests, including the creation of the Prince's Rainforests Project (in 2007); and Wangari Maathai, Nobel Peace Prize Laureate in 2004, who also advocated for the role of forests in the context of climate change.

The different streams can be summarized as follows:

Table 3.6 Overview of agenda setting and framing for REDD+

Dimensions	Main elements
Problem stream	
• Feedback, including indicators	• Different reports indicating that land-use change, in particular deforestation, is responsible for 17-25% of GHGs • IPCC Special Report on LULUCF in 2000
• Focusing events	• Peak in worldwide weather-related disasters (2002-2005)
• Framing	• Climate change as a serious global problem • Deforestation as a GHG emission problem • Significant emphasis on deforestation's contribution to overall GHGs emissions.
Policy stream	
• Technical feasibility	• Scientific knowledge enhanced • Methodologies and guidelines developed
• Values	• Respect for the CBDR principle • Sovereignty concerns addressed
• Anticipation of future constraints	• Funding pledged by developed countries
• Framing	• REDD+ as a cost-effective solution • Forests as sinks
Political stream	
• International mood	• Need to include other sectors • Need to develop a more inclusive agreement
• Consensus building	• Large and strong coalition of developing countries • Inclusion of other forest-related activities • OPEC glad to deviate focus from fossil fuels
• Pressure groups	• NGOs, Indigenous Peoples, private sector
• Governments	• Forests mostly owned by States • Environment-related Ministries main UNFCCC focal point in many countries • FCPF, UN-REDD, bilateral funding
• Framing	• Aspects of inclusion to gain political support (e.g. forest degradation, safeguards)
Policy entrepreneurs and champions	
• CfRN • Norway • champions supporting efforts	• Key in making three streams meet and sustaining efforts through the years

3.5 Agriculture on the climate change agenda

Although agriculture as a sector was mentioned in the original UNFCCC text for both mitigation and adaptation (United Nations 1992b), agriculture has not received much attention historically as a mitigation option (Dickie et al. 2014). As indicated by one of our interviewees: 'Agriculture in the UNFCCC agenda has not been so much on estimating emissions and removals but more on relevant practices e.g. early warning systems, adaptation to climate change, sustainable intensification, etc.' (interviewee 12). There are some agriculture CDM projects registered, however, as indicated by Larson et al (2011: 2) '...most projects have to do with agriculture as a source of bio-energy, and that few projects tap the mitigation potential associated with changing how agricultural lands are used.' However, in 2005, SBSTA decided to hold several mitigation workshops, one of which addressed 'Agriculture, forestry and rural development' (UNFCCC 2006). Also, countries are expected to report on their agriculture emissions, as on any other sector (Tubiello et al. 2015 and interviewees 35 and 39). In 2011, at COP 17 in Durban, an item called 'Issues related to agriculture' was included in the SBSTA agenda (UNFCCC 2011). This was the result of a complex process that started in COP 13 (Bali 2007) with the discussion of sectoral approaches under mitigation efforts (UNFCCC 2007). COP 17 (in 2011) can be considered the first time that agriculture 'was included … on the formal agenda of one of the bodies established under UNFCCC' (Kalfagianni and Duyck 2015: 10)[35]. The mandate was to exchange views and adopt a decision by COP 18 (UNFCCC 2011: Decision 2/CP.17). Despite these efforts, no significant policy change has been achieved. Discussions have ended with conclusions, not decisions, with a recent exception in past COP 23, when a new agenda item 'Koronivia joint work on agriculture' was agreed upon[36]. Figure 3.2 provides an overview of the timeline since 2011, when the item was put on the SBSTA agenda, until 2015.

35 For more details, see Kalfagianni and Duyck (2015) and Kibo Consulting and UK Met Office (2014)

36 In 2017, after the timeline of this chapter, COP23 finally reached a decision (Decision 4/CP23 in FCCC/CP/2017/11/Add.1). This decision mandates SBSTA and the Subsidiary Body for Implementation (SBI) 'to jointly address issues related to agriculture', keeping in mind agriculture's vulnerability and food security. The scope of this work and the extent to which future agreements will consider mitigation, is still to be seen.

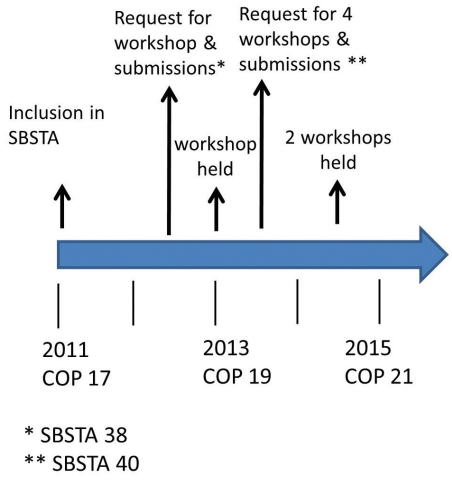

Figure 3.2 Agriculture's timeline 2011-2015[37]

3.5.1. Problem stream

Feedback, including indicators: Several reports have highlighted that emissions from agriculture are increasing (FAO 2014, Smith et al. 2007). For instance, between 2001 and 2011 global agricultural emissions increased by 14% (FAO 2014). This data draws attention to the fact that most agricultural emissions (about 75%) are taking place in non-Annex 1 countries (FAO 2014, Wilkes, Tennigkeit, and Solymosi 2013), and that in many developing countries agriculture is the main emissions source. In 42 developing countries, agriculture even represents over half of their national GHG emissions (Richards, Wollenberg, and Buglion-Gluck 2015). According to these reports, agricultural emissions are expected to continue increasing in the coming decades (Climate Focus, IIASA, and UNIQUE 2011, Wilkes, Tennigkeit, and Solymosi 2013), with agriculture continuing to expand to forested areas (Kissinger 2013 and interviewee 38). At the same time, agriculture can be affected by climate change, threatening food security (Beddington et al. 2011, World Bank 2007).

Focusing events: The global food crisis in 2007/2008 was an important event that partially pushed agriculture onto the climate change agenda. Food prices increased significantly, leading to riots and government destabilization in many countries (United Nations 2011). Climate change was highlighted by some as one of the factors influencing this crisis, for instance droughts affecting grain and cereal production in certain countries (United Nations 2011). Other studies considered that while not a key trigger in this crisis, climate change would be a major concern for food production in the future (Headey and Fan 2010). Increased demand for biofuels, which are implicitly linked to agriculture, energy and climate policies, was also considered a trigger (IISD 2012, United Nations 2011).

37 Adapted from: http://unfccc.int/land_use_and_climate_change/agriculture/items/8793txt.php

Framing: Initially the general focus was more on agriculture as a sector vulnerable to climate change and its adaptation needs. More recently, the problem has mainly been framed as agriculture facing the challenge of increasing food production while keeping emissions low and adapting to climate change, in light of the growing world population[38] and changing diets (e.g. more people eating more animal products), in particular in developing countries. For instance, the FAO estimates that compared to 2005/2007 levels, production should be increased by 70% by 2050 to feed the growing population, (FAO 2009b)[39]. This will have an impact on emissions related to agriculture. From a 'responsibility' perspective, developing countries are implicitly underlined as responsible or having the major burden for addressing this problem, since most agricultural emissions mainly come from these countries, and the majority of the population growth and changing diets also take place here. Developed countries, on the other hand, have not only lowered their agriculture emissions, but also the area dedicated to agriculture (Gibbs et al. 2010).

Considering that the IPCC Fifth Assessment Report merged agriculture, forestry and land-use data in one single report (IPCC 2014a), agriculture policy entrepreneurs are using integrated forestry and agriculture data to highlight the contribution of the land-use sector and continue using the 'one quarter reference', for instance: 'The land sector accounts for about a quarter of net anthropogenic GHG emissions, mainly from deforestation, agricultural emissions from soil management practices, and livestock.' (CGIAR/CCAFS 2016)

3.5.2. Policy stream

Technically feasible: Important research has been undertaken and different climate-friendly technologies and practices have been developed to lower agricultural emissions and enhance its resilience. However, their adoption by farmers is low (Wreford, Ignaciuk, and Gruere 2017). Also, IPCC identifies several mitigation options that can be implemented in the short term with current available technologies or practices, with universal applicability by farmers (Smith P. et al. 2014). However, the difficulty of measuring, reporting and verification (MRV) for millions of farmers (Kibo Consulting and UK Met Office 2014), the need to develop more precise IPCC emission factors (Campbell et al. 2011), and the lack of systematic collection of data at the national level have been highlighted as major challenges (Rosenstock et al. 2013). This was also confirmed by several of our interviewees. The risk of reversals or non-permanence is also a challenge (IPCC 2014a, Soussana et al. 2017, Dickie et al. 2014). More work needs to be done as well on metrics and indicators for adaptation (Campbell et al. 2011 and interviewees 2 and 24).

38 Estimated as 9,7 billion people by 2050 (United Nations 2017: 1)

39 CGIAR and World Bank also estimate that agricultural production will need to be increased significantly (Beddington et al. 2011, World Bank 2017b).

Values: While considering agriculture in a more comprehensive way under the UNFCCC, in particular its mitigation component, is positive for the environment, it is seen by some developing countries and other stakeholders as undermining their (food) security, and as such, their sovereignty and right to development. Agriculture is a sensitive sector in many developing countries, as it represents an important part of their Gross Domestic Product (GDP) (Smith P. et al. 2014 and interviewee 31). For them, it also jeopardizes the principle of CBDR, as the risk of global mitigation targets and restrictions (see below), considers all countries as 'equal', while their capacities and needs are different.

Anticipation of future constraints: Main concerns can be classified as follows.

Table 3.7 Agriculture's main constraints

Concern	Explanation
More commitments and trade concerns	• Fear that a work programme on agriculture under SBSTA/UNFCCC can lead to quantifiable mitigation targets and more commitments (interviewee 14), non-tariff barriers (Kibo Consulting and UK Met Office 2014 and interviewee 12), or tax border adjustments (interviewee 39), compromising food security (Campbell et al. 2011). • The corporate control and the rise of patents for climate-resistant crop varieties and the extent to which poor farmers will be able to afford them (Campbell et al. 2011).
Land tenure, legislation and displacement	• Challenges in many developing countries related to land tenure (Kalfagianni and Duyck 2015), including weak or absent regulations and their enforcement (Soto Golcher, Zurek, and Busink 2016). • Risk of displacement of local populations (Kalfagianni and Duyck 2015), as has happened with industrial tree plantations (Gerber 2011 and interviewee 45)
Financial unfeasibility and lack of incentives	• Access to and cost of technologies for developing countries, in particular, for low-income smallholder farmers, and lack of incentives (interviewee 23) .
Shifting behaviour	• Some mitigation strategies might need to address the demand side, shifting current consumption patterns (Kalfagianni and Duyck 2015) and reducing food waste (Kibo Consulting and UK Met Office 2014 and interviewee 13).

Framing: There is no clear solution framed that addresses the main concerns and the multiple values of agriculture. There is an attempt by some policy entrepreneurs to make agriculture be part of the solution, as its mitigation potential has been highlighted as an opportunity, instead of a problem (Graziano da Silva 2016, Wilkes, Tennigkeit, and Solymosi 2013, World Bank 2017a and interviewee 42). At the same time, some mitigation actions have been highlighted as having a positive effect (co-benefits) on adaptation and food security (Soussana et al. 2017, Frank et al. 2017). Still, there is no clear way forward within

the traditional mechanisms in the UNFCCC. Since 2009 and outside the UNFCCC, Climate Smart Agriculture (CSA) has been developed as an approach that reduces emissions and increases resilience and productivity in agriculture.

3.5.3. Political stream

International mood or climate: Governments recognize the importance of the agriculture sector, especially for food security (Campbell et al. 2011), ending hunger, improving nutrition, and generating income for the rural poor[40]. Within climate governance, two major shifts have influenced consideration of agriculture on the climate agenda. Firstly, as with forests, it has been recognized that we need to include other sectors besides the traditional ones (energy, transport) in order to effectively address climate change. Secondly, the North-South differentiation, or Annex 1 versus non-Annex 1 countries, is not so clear any more, as emerging economies have started to emit significant quantities of GHGs (Climate Watch 2018 and interviewees 13, 18, 39). This was not envisaged when the Kyoto Protocol was being negotiated (interviewee 18). There is also pressure within and among countries to reduce emissions, with 131 INDCs (Indicative Nationally Determined Contributions) considering agriculture (including mitigation, adaptation or both) (Richards, Bruun, et al. 2015). At the same time, the vulnerability of the agriculture sector to climate change has been highlighted for some years (IPCC 2007b, 2014c, UNFCCC 2010).

Pressure groups: We can identify the following key stakeholders pushing in different directions.

40 See Sustainable Development Goal nr. 2 and related targets at https://sustainabledevelopment.un.org/sdg2

Table 3.8 Agriculture pressure groups

Pressure Group	Position on agriculture in UNFCCC
NGOs	In favour: • Environmental NGOs (e.g. the Environmental Defense Fund, Conservation International) support a comprehensive consideration of agriculture in the climate regime. Against: • Some NGOs (including Econexus, ActionAid) are concerned that agriculture's offsets in developing countries will prevent emission reductions in industrialized countries (Ensor et al. 2009, Anderson 2014). • Other food security/nutrition-oriented NGOs (e.g. La Via Campesina, Coopération Internationale pour le Développement et la Solidarité - CIDSE) consider mitigation as a threat to food security. Some of these NGOs, e.g. Action Contre la Faim, also oppose the consideration of agriculture outside intergovernmental mechanisms, as they fear the risk of private sector dictating its own rules (interviewee 27).
Agri-Food/business	• In general, those being affected by national or regional stricter regulations feel disadvantaged when competing with foreign businesses that are not subject to strict regulations; or fear losing their international suppliers, as they might not satisfy these requirements (Campbell et al. 2011). Several companies (e.g. Cargill, Wilmar International, Unilever, Kellogg's) are undertaking voluntary actions, like zero deforestation commitments (Cargill 2017, Chain Reaction Research 2015, United Nations 2014b and interviewees 10 and 31). • Agri-business in countries where legislation is not so strict are not keen to new requirements or targets.
Farmers' Organizations	• Broad support for the need to recognize and support adaptation needs (interviewee 45). • Mitigation benefits are perceived as long-term and less tangible, and adaptation benefits as short-term and more urgent (Smith et al. 2007, Soto Golcher, Zurek, and Busink 2016, Wreford, Ignaciuk, and Gruere 2017 and interviewee 39). Unless there is funding or other market incentives it is unlikely that farmers in the South will engage in mitigation actions (interviewees 1 and 33).

Governments: The consideration of agriculture within the climate discussions is in general supported by Ministries of Agriculture (see e.g. the Johannesburg Communiqué of The African Ministerial Conference on CSA, (2011). However, the political support for its inclusion in climate negotiations is limited. Climate negotiations are usually a jurisdiction of Ministries of Environment or Foreign Affairs[41]. In many countries, environmental and agricultural policies conflict with one another (Henle et al. 2008 and interviewee 18), so there is some resistance to combining agendas. The above communiqué, which was sent

41 See for instance the national focal points to UNFCCC at http://unfccc.int/parties_observers/parties/national_focal_points/items/9336.php

'for consideration and further processing' (African Ministerial Conference on CSA 2011: paragraph 14) to the African Ministers Conference on Environment (AMCEN), did not receive support from these ministers (interviewee 42). At the same time, Foreign Affairs Ministries are cautious as they see agriculture as a potential source of conflict due to food security or economic implications at the national level.

Consensus building: There are two main positions, one supporting the development of an agriculture work programme, including mitigation within SBSTA/UNFCCC; this is mainly supported by several developed countries, such as USA, New Zealand, the European Union, intergovernmental organizations, such as the FAO and World Bank, and research organizations. The second block is composed of some developing countries under the umbrella of the G77 (e.g. Argentina and some African countries), who want to limit discussions to adaptation, thereby preventing the development of a work programme. Considering the lack of progress within the traditional negotiation mechanisms, several countries, IGOs and NGOs have gathered outside the UNFCCC to form a Global Alliance on Climate Smart Agriculture (GACSA), or regional partnerships, such as the African Alliance on CSA, to demonstrate the benefits of such an approach on the ground and to engage other non-state actors (interviewees 14 and 42).

Framing: To keep the SBSTA agenda item 'alive', supporters of an agriculture work programme have not been able to go beyond workshops - mostly focused on adaptation - and preparation of submissions, mainly because of the friction between adaptation and mitigation. Mitigation is somehow 'camouflaged' in workshops addressing co-benefits, efficiency or enhancing productivity in a sustainable manner, and can be addressed in each country's NDC. The tendency is to be less prescriptive and let governments decide, in accordance with their national circumstances and capabilities, how they are going to contribute to the 1,5-2 degrees target via their NDCs (Soto Golcher and Visseren-Hamakers 2018). As one interviewee stated: 'Countries are talking about making contributions instead of commitments' (interviewee 29).

3.5.4. Policy entrepreneurs

Since 2009, and with the introduction of the CSA concept by FAO to the 'Hague Conference on Agriculture, Food Security and Climate Change' held in 2010 (FAO 2010b, The Netherlands 2010), several stakeholders have re-joined the efforts to introduce agriculture on the climate agenda in a more comprehensive way. The main policy entrepreneurs are a combination of governments, research organizations, NGOs and IGOs, in particular The Netherlands, New Zealand, USA, South Africa, African Union, CGIAR/CCAFS, FAO and the World Bank. Policy entrepreneurs have been active through lobbying (interviewee 42); publishing reports; three Global Conferences on Agriculture, Food and Nutrition Security and Climate Change, in 2010 (The Netherlands), 2012 (Vietnam), and 2013 (South Africa), sponsored by The Netherlands

and supported by FAO and the World Bank; side events during COPs; Agriculture and Rural Development Day parallel to COPs since 2009 and to Rio+20; and launching of the GACSA during the United Nations Secretary General Climate Summit held in 2014.
The fact that the USA and the World Bank are behind the inclusion of agriculture in a more comprehensive way in climate negotiations as well as the promotion of CSA creates some mistrust from many developing countries and NGOs. USA's international reputation on climate change negotiations has been problematic, including not ratifying the Kyoto Protocol[42] As for the World Bank, its perceived support for private sector's interests, promotion of trade liberalization (Wise and Murphy 2012), and carbon markets raises several concerns in many developing countries.

As for champions, Sir John Beddington, UK Chief Scientific Advisor (2008-2013), played an important role leading up to COP 17's inclusion of agriculture on SBSTA's agenda.

Table 3.9 Overview of agenda setting and framing for Agriculture

Dimension	Main elements
Problem stream	
• Feedback, including indicators	• Increase in agriculture emissions, particularly in non-Annex 1 countries • Agriculture expanding into forested areas
• Focusing events	• Climate change as one trigger in the 2007/2008 global food crisis
• Framing	• Need to increase agricultural production, due to increasing populations and changing diets, while keeping emissions low and adapting to climate change • Implicit responsibility of developing countries
Policy stream	
• Technically feasible	• While there is some progress on technologies and mitigation options, important technical and adoption barriers exist, as well as lack of data to enable implementation and monitoring
• Values	• Environmental values versus food security, sovereignty and the right to development • Weakening of CBDR principle
• Anticipation of future constraints	• Fear of more commitments and trade concerns, affecting food security • Land-tenure, - legislation and displacement challenges • Financial unfeasibility and lack of incentives • Shifting behaviour (consumption patterns)
• Framing	• Attempt to make agriculture part of the solution, but no clear proposal that addresses the multiple values of agriculture

42 And more recently by the announcement of the US of its retirement from the Paris Agreement

Political stream	
• International mood	• Need to include land-use sector • Agriculture important for achieving Sustainable Development Goals (in particular SDG 2) • Evolution of CBDR principle
• Pressure groups	• NGOs, Agri-Food business, farmers
• Governments	• Jurisdiction problem among Ministries of Agriculture and Environment
• Consensus building	• Different positions on agriculture adaptation and mitigation • One group impeding progress as a block (G77) • Another group supporting progress, but no unified position (specially developed countries)
• Framing	• Contribution determined via NDCs • Mitigation 'camouflaged' in workshops
Policy entrepreneurs and champions	
• Mix of policy entrepreneurs (Governments, IGOs, Research Organizations)	• Achieved introduction of agriculture into SBSTA agenda in 2011 • Not acting as a block • Mistrust of the US and World Bank
• Sir John Beddington as champion	• Development of GACSA

3.6. Discussion and Conclusions

This chapter has presented a comparative analysis of agenda setting and framing in an international context. It has contributed to our understanding of how tropical deforestation has managed to become integrated into the global climate change decision agenda through REDD+, while agriculture, with more recent efforts, has not made much progress. The research has analysed different elements under problem, political, and policy streams, based on Kingdon's MSA on agenda setting as well as framing considerations. Framing has been key in this analysis, with an additional layer highlighting frames, and identifying the extent to which policy entrepreneurs have used framing in a strategic way to generate policy change and how they have done so.

Forests and tropical deforestation have been a sensitive issue for many years. Despite the initial knowledge gaps and lack of agreement on technical aspects, its inclusion into SBSTA's agenda in 2005 gave rise to a series of decisions, funds and actions on the ground. The urgency of reducing GHG emissions as a whole, and the realization that efforts in traditional sectors were not enough, pointed to REDD+ as a short-term and cost-effective solution that can be undertaken by developing countries with the support from the international community. The availability of funding sources to support developing countries technically and financially in this endeavour (e.g. the readiness funds), enabled a trusting environment

and demonstrated political will. Policy entrepreneurs played a decisive role in making the three streams meet. By COP 21 in Paris, REDD+ had been on the decision agenda for ten years. Although the rate of deforestation globally has decreased (FAO 2015), it continues to be a serious problem and an important emission source. REDD+ had reached a level of maturity and common understanding, i.e., it had developed a legal and methodological framework (interviewee 33). Its inclusion in Article 5 of the Paris agreement signals that REDD+ is regarded as part of the solution to achieve global mitigation goals (Climate Focus 2015).

Agriculture is an even more complex sector, with multiple stakeholders and objectives. Former UNFCCC Executive Secretary indicated: '…all sectors are included in the Convention, however, not all sectors have the same maturity and understanding, or methodology on how to regulate them; they get regulated in accordance with technical and political agreements' (interviewee 39). Its inclusion in SBSTA's agenda in 2011 represented an important step, but moving further to the decision agenda has been, and will most likely continue to be difficult, despite the latest developments at COP 23 (i.e. the Koronivia joint work on agriculture). Within the UNFCCC, the streams have not been linked. A committed and perseverant policy entrepreneur, with access to the negotiations and who is considered reliable by different negotiating blocks, has been lacking. The technical and knowledge challenges are important, as there are different types of farming activities and crops, as well as types of GHGs emanating from them (IPCC 2014a, Kibo Consulting and UK Met Office 2014, Rosenstock et al. 2013). However, the largest constraint is not technical in nature, but is related to concerns over food security, but mostly, food production. Agriculture represents an important economic sector in many developing countries, and developed countries continue to invest significant amounts in agricultural subsidies (OECD 2017 and interviewees 15, 32, 44). And while REDD+ has benefited from a group of committed donors that stepped in to support REDD+ during its earliest stages (such as Norway), agriculture has not enjoyed the same support.

It is important to highlight that while REDD+ is limited to developing countries, the consideration of agriculture is relevant to all countries (Kibo Consulting and UK Met Office 2014 and interviewee 14). There are millions of farmers around the globe, with different production scales and financial resources, which makes implementation more complex than in forests. However, despite the complexity, there is pressure to engage the land-use sector in mitigation efforts. Some willingness is visible, as seen with the inclusion of agriculture and forestry within the NDCs.

In terms of framing, both forest/REDD+ and agriculture have some common understanding of what the problem is. In the case of REDD+, it was argued that land-use change, in particular deforestation, was the cause of almost 17-25% of global GHG emissions. Policy

entrepreneurs capitalized on this fact to justify the need for further action. Emissions from agriculture also have an important share (FAO 2014). Reports have alerted that agriculture emissions are expected to increase and that the agriculture sector is the largest emitter of non-CO2 GHG (IPCC 2014a). This points at a clear problem in need of a solution; however, since these emissions' increase is apparently tied to food security concerns and growing populations, policy entrepreneurs, have been a bit more cautious in using this information to make a case, in our view. The scope and the framing of agriculture under the UNFCCC thus remains focused on production (interviewee 32), while neglecting elements such as improving access to balanced and nutritious food, or changing consumption habits.

There are also important differences in terms of framing within the policy and political streams. In the case of agriculture, a convincing proposal or solution that addresses the multiple objectives of agriculture, including food security, and brings financial incentives along, has been missing. Climate Smart Agriculture is being discussed outside the UNFCCC as a potential solution, but there are different interpretations as to what it entails. At the same time, developing countries would like to be assured that incentives are part of the framed solution and that technology will be developed and shared (Soto Golcher, Zurek, and Busink 2016 and interviewee 23), so that the fear of new commitments or targets is overcome. For this to happen, political will needs to be more visible. REDD+ on the other hand, was framed as a cost-effective solution and enjoyed political will.

Kingdon's model has been a useful tool for enhancing the understanding of the difference in the agenda setting of tropical deforestation and agriculture in international climate change negotiations. Our findings validate in several aspects his explanation of how and why items emerge on agendas, for instance, the role of active and committed policy entrepreneurs. In the case of REDD+ there was a group of policy entrepreneurs that coordinated and sustained efforts for over ten years, while in the case of agriculture, efforts have taken place more in isolation. Being respected and trusted by the different blocks are, in our view, also important qualities of a policy entrepreneur. For instance, Costa Rica brought some credibility to the process by demonstrating how it managed to increase its forest cover through its programme on Payment for Environmental Services (PES), where absorption of CO2 was one of the services recognized (interviewee 18). With the entrepreneurs representing two developing countries, the CfRN's initiative avoided higher resistance from other developing countries, and gained the interest of developed countries.

Kingdon also highlights how actors sometimes support a proposal since 'joining the coalition occurs not because one has simply been persuaded of the virtue of that course of action, but because one fears that failure to join would result in exclusion from the benefits of participants' (Kingdon 2014: 159). We can see this in the case with Brazil, which seriously opposed RED/REDD+ in its early stages. However, as REDD+ gained more attention and funds

were pledged, it saw REDD+ as an opportunity to obtain resources to continue reducing its deforestation rates (interviewee 40)[43]; it also saw the chance to commit to GHG emissions' reductions as evidenced in its National Policy for Climate Change (The REDD Countries Database 2011), since as an emerging economy, it was receiving international pressure to do so (interviewee 33). The country realized that it gained more by being part of REDD+ than being excluded[44] There were also a number of smaller countries that joined the CfRN, since they saw it as an opportunity to make their voices heard and not be excluded from the potential benefits.

Integrating a framing perspective into Kingdon's MSA framework has provided valuable elements to understand how policy entrepreneurs can use framing in each stream in an strategic manner: for instance, to highlight certain aspects of a problem and ignore others, making the problem more visible and urgent; to include or reframe certain elements in a proposed solution to prevent future opposition and gain political support; and finally, how policy entrepreneurs use framing to connect or link the separate streams. Framing can be decisive in placing an item high on the political agenda (Dewulf 2013).

Besides adding a framing dimension to Kingdon's framework, our research also incorporated a second variable to the analysis: the role of champions. Further research can contribute to enriching the understanding of international agenda setting, by analysing the role of champions in supporting policy entrepreneurs, and also by understanding the role of international organizations or partnerships: in some cases they can take the role of a policy entrepreneur (for instance FAO and the World Bank in the case of agriculture), while in others they have a more facilitative role, supporting governments, like UN-REDD, the REDD+ Partnership and the FCPF in the case of REDD+.

There are high expectations for REDD+ to fulfil its promises. It has also provided '... a foundation of policy experience, technical guidance and capacity on which agriculture can build' (Negra and Wollenberg 2011: 1). As the main driver of deforestation, agriculture cannot be neglected – neither in REDD+ national plans and strategies, nor in its own right, as it is an important emission source and highly vulnerable to climate change. Agriculture can build and learn from REDD+ experience, but it does not necessarily mean that it needs to have a similar framework, since agriculture faces multiple challenges and complexities that differ from those of the forests (Negra and Wollenberg 2011, Soto Golcher, Zurek, and Busink 2016, Zurek et al. 2014).

43 Recent political developments in Brazil have caused that donors such as Norway suspend their financial support of the REDD+ Amazon Fund.

44 Brazil, through its Amazon Fund captures most of REDD+ funding (See https://www.odi.org/sites/odi.org.uk/files/resource-documents/11030.pdf)

The Paris Agreement aims to have a balance in GHG emissions and removals by sinks by 2050 (UNFCCC 1992: art. 4.1). This ambitious goal cannot be achieved without giving the land-use sector a key role. Changing diets, the growing global population, and unsustainable consumption patterns will increase pressure on the agricultural sector to produce more food, while trade flows and international markets will greatly influence the direction of natural resource use (interviewees 34 and 29). Seeing the forest while missing the fields does not seem to be a long-term solution for simultaneously and effectively addressing climate change, forest conservation, and food security issues.

Chapter 4

Climate smart agriculture through the looking glass: partnership building in the climate-agriculture nexus

This chapter is under review at a peer-reviewed journal

Abstract

The Global Alliance of Climate Smart Agriculture (GACSA) is a partnership that brings together more than 230 actors from different backgrounds, sectors and interests, active in the agriculture and climate change nexus. This variety of frames, while enriching, brings important challenges. This chapter aims to understand: how and to what extent framing has played a role in the design and evolution of GACSA. For this, we used as conceptual framework the Ladder of Partnership Activity, incorporating a framing dimension. Based on primary data, including 37 interviews, participatory observation, and secondary data, this chapter concludes that framing plays distinct roles at different stages of partnership formation, ranging from strategic framing in its early stages, to more implicit and unconscious frames from dominant actors at later stages. More metagovernance discussions, strategic steering and consideration of the interlinkages with other sectors, in particular forestry and trade, could enhance the needed transformational changes in agriculture.

4.1 Introduction

Efforts to combat climate change include the land-use sector, as agriculture, forestry and other land use (AFOLU) represent about one quarter of global greenhouse gas (GHG) emissions (IPCC 2014b). Agriculture's share in GHG emissions was about 11% in 2010 (FAO 2014: 20). These emissions are expected to rise significantly by 2050 (Wilkes, Tennigkeit, and Solymosi 2013: 14, FAO 2014: 23). This increase is attributed to population growth, increased purchasing capacity, and unsustainable consumption and production patterns, including increased consumption of animal products and food loss and waste (FAO 2011, Garnett et al. 2013, HLPE 2016). At the same time, climate change will affect food production and food security (IPCC 2014b, 2018, Hanjra and Qureshi 2010).

Addressing the integration of climate change considerations into agriculture and vice versa does not seem like an easy task at the international level, in particular in terms of reducing GHG emissions (mitigation). This is illustrated by the slow progress of agriculture in the United Nations Framework Convention on Climate Change (UNFCCC) negotiations (Kalfagianni and Duyck 2015: 2). However, negotiations seem to have entered a new phase with the agreement on the 'Koronivia joint work on agriculture' (UNFCCC 2018: Decision 4/CP23). The fact that 131 countries included agriculture in their Indicative Nationally Determined Contributions (INDCs) (Richards, Bruun, et al. 2015), of which 32[45] explicitly mention Climate Smart Agriculture (CSA) (FAO 2016a), also shows some political will to make agriculture part of the solution.

The concept of Climate Smart Agriculture (CSA) was developed outside the inter-governmental arena as an approach linking agriculture and climate change, with the aim of achieving food security and other agricultural development goals (FAO 2013). According to its developers, agriculture and food systems will need to undergo 'significant transformations' to achieve these goals (FAO 2013: 2).

The Global Alliance on CSA (GACSA) was launched at the UN Climate Summit in 2014. It was created as a reaction to the lack of progress in addressing climate-related agriculture considerations within the traditional intergovernmental mechanisms – in particular those related to climate change mitigation – and as a way to engage nonstate actors (interviewees 14 and 42). As of May 2019, GACSA had over 286 members, ranging from governments, nongovernmental organizations (NGOs), private sector, research organizations, and farmers' associations (GACSA 2019).

We consider GACSA a partnership, understood as 'collaborative arrangements in which actors from two or more spheres of society (state, market and civil society) are involved

45 24 countries out of these 32 are in Africa.

in a nonhierarchical process through which these actors strive for a sustainability goal' (Glasbergen 2007: 2). Because partnerships bring together different views, interests, and understandings of the problems and needed solutions, this chapter analyses how different frames come together in the development of an inter-sectoral partnership, such as GACSA, which attempts to integrate climate change and agriculture considerations. Specifically, this chapter aims to further our understanding on how and to what extent framing plays a role in the design and evolution of GACSA.

This chapter builds on partnership literature and framing theory. It will start by presenting its conceptual framework, based on Glasbergen's (2011) 'Ladder of Partnership Activity', which provides a good basis for analyzing the role of framing in the evolution of a partnership. This will be followed by a brief background section on CSA and its different interpretations. After this, we undertake an analysis of GACSA's evolution, applying the Ladder. The chapter will wrap up with a discussion and conclusion section.

4.2 Theoretical and Conceptual Framework

The influence of nonstate actors in environmental and sustainability affairs has been increasing for the past thirty years (Chester and Moomaw 2008, Arts 2006). This is recognized by some scholars as a 'shift from government to governance' or 'governance without government' (Rosenau and Czempiel 1992). Ostrom (2012) highlights that some challenges, such as climate change, cannot rely only on one single solution agreed upon at the global level, but that they would benefit from different actions undertaken at multiple scales by a variety of actors. This variety of instruments, approaches and actions causes fragmentation of global governance. This chapter contributes to debates on the fragmentation of global governance and efforts to enhance policy coherence through targeted integration efforts (in this case, integrating agriculture and climate change considerations).

Addressing frames and framing can assist us in disentangling the fragmentation of global governance in order to understand why it happens and with what consequences; it can also help propose ways to deal with it[46]. The analysis of frames can also lead to a better understanding of the dynamics of partnership formation within global governance. We therefore position partnership literature under the broader umbrella of governance literature (Visseren-Hamakers 2013).

We understand frames as 'underlying structures of belief, perception and appreciation' (Schön and Rein 1994: 23) and framing as '...the process by which people develop a particular conceptualization of an issue or reorient their thinking about an issue' (Chong and Druckman 2007: 104). As stated by Dewulf (2013: 322), 'Through framing, implicitly or

46 Concepts such as fragmentation and integration are addressed in Integrative Governance literature. See Visseren-Hamakers (2018b)

explicitly, particular interests are advocated or undermined, power positions are maintained or challenged and particular actors are included or excluded from policy debates'. Framing can also assist us in understanding problem definition and scale (global, national or local) and consequently, what solutions or actions are needed and who should undertake them (Dewulf 2013, Schön and Rein 1994, Nisbet 2009). Framing can consciously be used in an strategic way to 'reach communication or political goals' (Dewulf 2013: 322), increase support and affect decisions (Hulst and Yanow 2014, Ernste 2012) and achieve certain objectives (Benford and Snow 2000, Benford 1997). Ernste (2012: 96) also highlights that framing can take place consciously or unconsciously by actors trying to make sense of their reality or justify their actions, and 'often these frames function in practice but are not recognized or explicitly described, and stay rather implicit'. Framing can enrich Glasbergen's Ladder as one of the critical issues for success or failure (see Figure 4.1).

Partnerships have become one of the means to enhance nonstate actors' participation in addressing societal problems, as well as support implementation (Visseren-Hamakers 2013, Eweje 2007). They create opportunities for innovation and platforms where actors benefit from each other's strengths (Verkooijen and Hoogeveen 2010). Biermann et al. (2007) identify three governance deficits that partnerships try to fulfil: regulation, implementation and participation.

Cross sectoral collaboration is in itself a complex process, where elements of power, trust, and legitimacy are constantly interacting in institutional complex settings where the different members represent different interests (Bryson, Crosby, and Stone 2015). These interests, as Schön and Rein (1994: 29) put it, 'are shaped by frames, and frames may be used to promote interests'. As more actors join, the number of frames increases and the 'frame configuration' becomes more heterogeneous; the opposite also occurs – as members leave, the configuration can become more homogeneous (Dewulf, Craps, and Dercon 2004).

Specifically, our analysis will build on the Ladder of Partnership Activity (Glasbergen 2011) (henceforth referred to as 'the Ladder') as it provides an analytical tool to increase our understanding of the initial formation and evolution of partnerships in the field of sustainable development. The Ladder provides important insights into partnership formation 'in terms of the critical issues and key challenges that arise, and which contribute to success or failure to create a new management practice...' (Glasbergen 2011: 3). It combines three disciplinary approaches – organizational studies, policy studies, and political science – by bringing internal and external factors into the analysis and identifying the impact they have on the governance system. Our understanding of the Ladder will be facilitated by the use of a framing dimension, as explained below.

Glasbergen (2011: 2-11) identifies five levels in his Ladder and recognizes that in reality things do not necessarily follow a sequential order. We will briefly introduce each level and

identify key elements we consider relevant to analyze with a framing lens. Each level is characterized by a core activity (Figure 4.1):

1. *Building trust:* this is the exploratory phase. Each partner is willing to collaborate, hear each other, feels positive about the intentions of the others, and values what others can bring into this arrangement.

   In this step, we will address how framing is used to show this readiness to collaborate, to create a trusting environment and to see a partner as trustworthy.

2. *Creating collaborative advantage:* this is the creation of the partnership itself. Partners with different interests come together to find common ground. This implies that they have to link their own interests to the partnership's goal.

   Here we will address what framing aspects are present when creating common ground and what effect the membership composition has on the direction and evolution of the partnership.

3. *Constructing a rule system:* this level can be understood as 'a new social contract with which the partners formally invest in each other' (Glasbergen 2011: 6). There is a common problem definition and the different rules are established (e.g. procedures, decision-making, monitoring, roles).

   Here we will address the framing aspects present in defining the common problem and the procedural elements of the arrangement, including its hosting and funding.

4. *Changing a market:* This and the following step in the Ladder are more external in nature. For Glasbergen, 'the market mechanism can be used to promote more sustainable practices' (Glasbergen 2011: 2). He highlights legitimacy as a key element at this level, i.e., the partnership is recognized and accepted by market players. Practices promoted by the partnership are also part of this step.

   In this step we will address the framing present in the type of technologies, practices and solutions offered by GACSA, since as indicated by Glasbergen (2011: 8) they 'are not neutral tools', and what framing aspects are present for making the partnership a legitimate option.

5. *Changing the political order:* the extent to which the partnership manages to influence political decision making, its content, and structures (i.e. solution of

public issues in other spaces aside from the formal political structures, also called 'social power').

In this last step, we will analyse which framing elements are present in trying to influence political decision making, its content and structures, as well as scale.

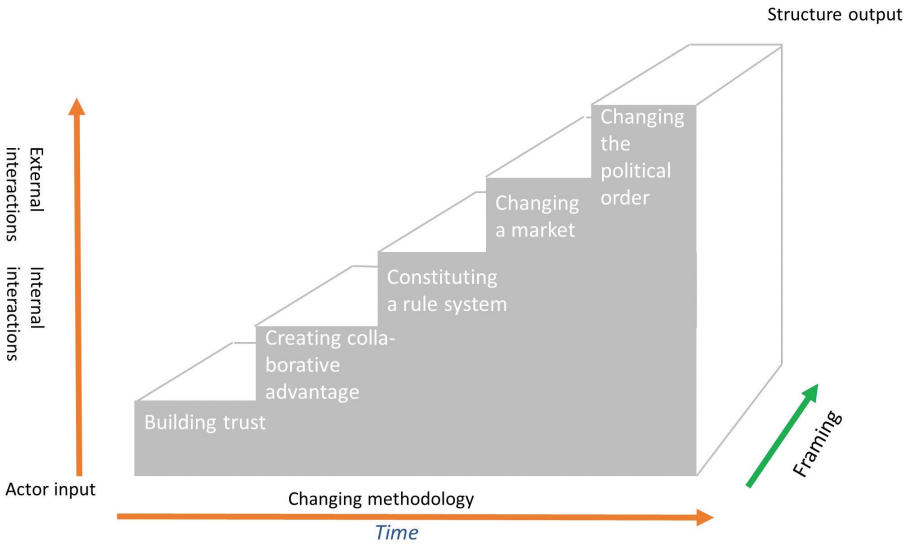

Figure 4.1 Conceptual Framework- Adapted Partnership Ladder with Framing Dimension

Source: Adapted from the Ladder of Partnership Activity (Glasbergen 2011)

4.3 Methodology

This research was undertaken March 2014 - September 2018. During these years the first author took part in GACSA's formation and subsequent development via participatory observation, as it allowed for a 'closer access to informants and activities, and enhanced understanding of the phenomena investigated using other methods' (DeWalt and DeWalt 2011: 110). The researcher participated in a total of 12 events, including GACSA's Strategic Committee meetings, Annual Fora, teleconferences, and side events at UNFCCC meetings. The research also included a literature review, document analysis and 38 semi-structured interviews with stakeholders from different sectors active in agriculture and climate discussions at the national and/or international level (Table 4.1). Interviewees were selected through expert and strategic snowball sampling approaches (Kumar 2014). Interviewees represent different regions (North America, Latin America, Africa, Europe and Asia), and include (but are not limited to) members of GACSA.

Table 4.1 Number of interviewees per sector

Sector	Number
Government	9
Intergovernmental Organizations[47]	6
NGOs	6
Research institutes	9
Financial Organizations	2
Farmer Organization	3
Business	2
Others	1
Total	**38**

For data and content analysis, a matrix was developed for each of the elements of the Ladder, as well as CSA definition, problem definition, GACSA's role and functions, existing concerns regarding GACSA, and how these issues were formulated (see Dewulf et al. (2011)). We analysed GACSA's relevant documentation from its early stages to the present (meeting reports, products, minutes, consultants' reports, terms of reference of working groups, etc.), as well as web pages from key stakeholders, reports, academic literature and peer-reviewed articles, in order to identify what the key and common framing issues were at each level, as well as their frequency and how key concerns were addressed.

4.4 CSA and Main Frames

The concept of CSA was framed by the Food and Agriculture Organization (FAO) in preparation for the First Global Conference on Agriculture, Food Security and Climate Change in 2010, organized by the Dutch government with the support of Ethiopia, Mexico, New Zealand, Norway and Vietnam, FAO and the World Bank (FAO 2010a). While CSA has gained wide use and recognition in various spheres and at different scales, it has also suffered critique and opposition[48] (Newell and Taylor 2018, Clapp, Newell, and Brent 2018, Taylor 2018). To date, five Science Conferences on CSA have been held, bringing an increasing number of actors together. Several alliances and partnerships have been created around the world, with GACSA being the one with a more global scope. The term CSA has proven to be highly complex and controversial, as even in the interpretation of its three pillars, different framings and understandings come into play:

47 Of which three interviewees are from FAO to obtain information over time (2016 and 2018).

48 More details of the CSA background have been addressed by other authors (see for instance Steenwerth et al. (2014), Faling et al. (2018) and Lipper et al. (2014)).

i. ‘Sustainably increasing agricultural productivity and incomes’ (FAO 2013: ix)

This pillar is considered key for many stakeholders. Some of them call it the ‘food security pillar’, however, the reference to ‘sustainably increasing’ seems to be more related to continuous increases in food production (than to environmental sustainability), and not necessarily food security. As mentioned by Soto Golcher et al. (2018), some people use productivity and food security interchangeably, while the two concepts mean different things. The term ‘food security’ is used sometimes as an entry point for bringing in the climate discussions, since ‘nobody can be against food security’ (interviewee 35). When it comes to food production, there are several others who disagree with such a ‘productivist’ frame, arguing that there is enough food for everyone (WFP 2016), citing in particular the high rate of global food loss and waste (interviewee 41), and the need for a re-analysis ‘of where, what and for whom it is produced’ (interviewee 46).

ii. ‘adapting and building resilience to climate change’ (FAO 2013: ix)

In general terms, and contrary to mitigation, adaptation and enhancing resilience in agriculture is widely accepted. Farmers are more open to talking about adaptation than about climate change or mitigation (interviewees 45 and 47). However, adaptation has different meanings for different people. For instance, some see adaptation as being able to make decisions in uncertainty (interviewee 28), while for others, it is closely related to income generation: ‘Farmers with decent economy are more resilient’ (interviewee 11). The creation of climate resistant varieties (through conventional means or biotechnology) is also considered an adaptation measure (e.g. Monsanto (2017) argues that it supports adaptation by developing seeds that use water more efficiently and increase pest tolerance). For others, adaptation is in general the creation of ‘systems where the weather has less potential of threatening the production’ (interviewee 46).

iii. ‘reducing and/or removing GHG emissions, where possible.’ (FAO 2013: ix)

While some people might be talking about the importance of mitigation in agriculture as part of the problem and the solution, they have different understandings of what it entails. For some, we have to understand mitigation in agriculture as better resource efficiency, recognizing that emissions will continue to rise in absolute terms, but can be reduced in terms of intensity (interviewees 12, 15 and 35), for instance, by decoupling food production from fossil fuels consumption (interviewee 29) (e.g. less fertilizers with petroleum-based chemicals). Mitigation can also be understood as reducing emissions, including from agriculture-led deforestation,

and/or enhancing absorption of CO2 through biomass or soil (Campbell et al. 2018). However, while several people argue that 'some deforestation will have to happen so we have enough food' (interviewee 31), some businesses are already engaging in voluntary zero deforestation commitments (interviewee 10). For others, changing consumption patterns, including lowering consumption of animal products and reducing food waste, is the primary pathway to lowering emissions.

Each pillar can be understood in different ways. If one brings them together under one umbrella, as CSA does, complexity increases. In their review, Chandra et al (2018) indicate that there are different definitions and interpretations of CSA and the balance between its three pillars.

4.5 Design and Evolution of GACSA

GACSA was launched in September 2014 after a process that was triggered by the First Global Conference on Agriculture, Food Security and Climate Change in 2010 (see also Faling et al., 2018). GACSA began with a vision that its initial core partners[49] had in the years leading up to its formation, namely to bridge climate change, agriculture and food security considerations, bringing together key actors from different sectors relevant for agriculture and climate change and enhancing action on the ground (The Netherlands 2010, 2013). The partnership developed as follows (Table 4.2).

4.5.1 LEVEL 1: Building Trust

Before the launch of the partnership, the core partners invested significant resources in trying to build trust among the potential members (this included organizing or participating in several meetings and consultations). They had to overcome existing concerns related to GACSA[50]. One concern was GACSA bypassing and becoming a parallel policy venue to the UNFCCC, since its core partners were frustrated with the slow pace of negotiations on agriculture, which had been on the agenda since 2011 (interviewees 14 and 42). The second concern was to demonstrate that it was not a government-led partnership, but one where members could participate on equal footing, regardless of their size or the sector they represented. During this phase a Framework Document (GACSA 2014) was drafted.

In this first step, ***framing*** played a key role since it was used strategically and consciously by the core partners in several ways to create a sense of trust and readiness to collaborate, for instance by:

49 Main core partners were: The Netherlands, USA, South Africa, FAO and the World Bank.

50 Based on participatory observation at several consultation meetings before GACSA's launch in 2014, including participation in teleconferences organized by the Special Representative of the UN Secretary General for Food Security and Nutrition.

Using a known (trustworthy) definition of CSA: GACSA adopted FAO's definition of CSA and avoided getting into a discussion of its meaning and scope. Moreover, CSA's three pillars were introduced in the framework document as the aspirational goals of the Alliance, after lengthy discussions regarding whether the goals had to be specific and measurable or general.

While FAO originally introduced the concept as a 'triple win' (FAO 2013), in the course of consultations, and due to the sensibility towards the mitigation pillar, the Framework Document softened it and recognized that 'it may not always be possible to achieve all these objectives simultaneously and balance might differ' (GACSA 2014: 2), depending on the specific context. It also kept FAO's reference of 'where possible' in the context of mitigation.

As confirmed in the interviews, in reality each partner seems to give a different level of importance to each pillar, in accordance with its particular interests and context. Core partners consciously refrained from dedicating space for an exchange aimed at defining CSA.

Being open to different approaches and interpretations: The approach in these early stages was to be general in the framing of key issues, such as in the definition of CSA, GACSA's goals, and membership requirements (see below). The aim was to open the door to a wider group of members, as this 'generality' would allow them to interpret CSA in their own manner. As highlighted by Taylor (2018: 94), based on CGIAR's (Neate 2013) and World Bank's (2012) compilations of CSA examples, 'small-scale conservation agriculture side by side with industrial-scale no-till canola monocropping predicated upon extensive glyphosate use as leading examples of CSA in practice'. Over time, GACSA has become more specific in the definition of goals (see Strategic Plan 2018-2022), but other aspects have remained general.

Creating a safe environment, with a sense of equality: As the initiative had intergovernmental 'roots', one key factor was the participation of the Special Representative of the UN Secretary General for Food Security and Nutrition, who was invited to the Third Global Conference on Agriculture, Food and Nutrition Security and Climate Change in South Africa in 2013, and who later led an open and inclusive consultation process via teleconferences leading up to GACSA's launch in the 2014. Those involved in this consultation process were called 'The Group of Friends of the Alliance on Climate Smart Agriculture'. The role of the UN as the convener of these teleconferences gave a sense of transparency and a 'neutral' space, where everyone had their voice heard and felt they were part of the process. Inclusiveness and transparency are also promoted by the open participation of GACSA's members in the Strategic Committee (SC) meetings, where members can take part physically or via live web stream. Another instance of promoting that sense of equality and inclusiveness was that the seating arrangement in the preparation meetings was simply in alphabetical order, without

distinction according to governments, NGOs, business, etc. (differentiating itself from usual UN setting).

Softening the sense of binding commitments: When the design phase started, partners were talking about the development of a charter document to guide GACSA's work and its members (South Africa and The Netherlands 2013), but in the months leading up to its launch, partners considered that the reference to a 'charter' sounded too rigid and binding and might prevent other potential members from joining.[51] As a result, the Framework Document was drafted instead and this has not been modified.

Explicitly stating that GACSA is not in competition with UNFCCC: To prevent any misunderstanding on GACSA's scope and its relation to UNFCCC, this was clarified in the Framework Document, by signaling UNFCCC's supremacy in addressing climate change (GACSA 2014). This was requested by France, as host of UNFCCC COP 21 in 2015. Some NGOs still opposed GACSA, however, as they had concerns that taking matters out of the internationally recognized intergovernmental framework gives – in their words – 'much more power to the private sector and less to the southern countries, as there is no accountability framework' (interviewee 27).

4.5.2 LEVEL 2: Creating Collaborative Advantage

Membership has been growing steadily since GACSA's launch. It started with close to 50 members (of which about 40% were governments) (United Nations 2014a) and by May 2019 its membership had reached a bit more than 280 organizations. Since the beginning, it has been a priority to increase the number of members from different sectors and regions.
In principle, the common ground is the Framework Document. As confirmed by several interviewees, the members see GACSA as a platform for sharing knowledge, information and learning, and a hub bringing together a diversity of expertise and resources, raising the visibility of the climate-agriculture nexus at the national and international levels.

In this second step, we note that core partners continued with a similar strategy of inclusiveness and being generic in terms of finding a common ground and membership considerations, but also, that certain implicit *frames* unconsciously started to shape the direction and evolution of GACSA as the number of members grew:

Agenda-setting instead of setting definitions, standards or policies: Since GACSA is not an implementing body, donor, policy development organization, negotiation platform or standard development forum, it has not aimed to clearly define CSA. It brings CSA to the attention of the different stakeholders, aiming at its inclusion in their specific agendas, and for its operationalization according to their particular circumstances and context.

51 Participatory observation in the Group of Friends of the Alliance during the first semester of 2014 and consultation meeting held in The Hague in July 2014.

While there are two large environmental NGOs that are GACSA members (The Nature Conservancy and Environmental Defense Fund), and some others that have a more regional or national scope, as well as IUCN, one of the largest environmental public-private partnerships, GACSA has encountered strong opposition from the civil society community. The openness and generality have been the reason why civil society groups in particular have not joined and instead, have strongly criticized GACSA. They have expressed their opposition through several open letters, the last one signed in 2015 by almost 350 organizations (ACT Alliance EU et al. 2015). They have concerns regarding what is and is not 'climate smart'. The definition used is too broad for them, and there is no clarity whether, for instance, GMOs are considered a climate smart approach, as there are neither environmental criteria nor social safeguards. These organizations instead promote agroecology (ACT Alliance EU et al. 2015).

Flexible membership criteria: To become a member, an organization only needs to subscribe to the Framework Document and appoint a focal point (GACSA 2014). To date, the diversity of membership seems to have been achieved, although farmer and financial organizations are under-represented.

While the simple requirements to become members might facilitate GACSA's growth in terms of numbers, after a careful consideration of its current membership, not all organizations listed seem to be actively working on agriculture or climate issues. There is no review of those who wish to become members (interviewee 36). The SC struggles with 'how accountability is brought into the Alliance, without challenging its open-to-all movement profile' (GACSA 2016a: 3).

Membership composition: As the membership grows, the different frames and interests the members have made it hard to find common ground. One of our interviewees indicated that 'the diversity of GACSA's membership makes it not easy to agree to a specific approach, so it is better to remain a knowledge-sharing platform' (interviewee 2). Also, while the active participation of key players such as the World Bank and USA can be considered positive, it also creates mistrust from several CSOs (La Via Campesina 2014) who resist sitting at the same table as them (interviewee 46). The presence of the fertilizer industry also creates strong concerns.

This lack of clarity and specificity to the CSA concept has led to some disappointment and frustration on the part of some of its members. In the absence of a clear definition of CSA, those who see GACSA from the outside make assumptions about it and CSA more generally, based on GACSA's membership and who is promoting the concept (also see ActionAid et al. (2014)). For instance, Monsanto is co-chair of the CSA working group at the WBCSD

(Monsanto 2015, 2017), and despite not being a member of GACSA, this influences others' perception of what CSA is.

4.5.3 LEVEL 3: Constituting a Rule System

The Framework Document sets the overall basis for GACSA to become operational, but as it starts functioning, several processes have had to be clarified and fine-tuned. Main decisions are taken by the Strategic Committee[52]. Members themselves are expected to provide information and periodic updates about their actions in support of GACSA's goals and their impact. There are also no binding commitments nor enforcement: actions taken by members are voluntary, and they are free to determine their own CSA goals, based on their priorities, and how they want to contribute to GACSA's collective goals. In-kind or financial contributions to GACSA are also voluntary. The Facilitation Unit is too small to be able to follow up on members' actions, nor has it the mandate to do so. It has also faced resource constraints and understaffing (interviewee 36).

Dominant *frames* of members have an (unconscious) impact in creating a rule system. Some framing considerations include:

Not too prescriptive: becoming a member should be easy, with no binding commitments. This flexibility might have implications in terms of actual contributions of members, and their updates on CSA-related activities.

Hosting and funding arrangements: FAO hosts GACSA's Facilitation Unit and Annual Fora, and administers the trust funds with voluntary contributions from donors. Donors include the Netherlands, USA, Norway, Switzerland and Ireland. Some governments have seconded staff to work for GACSA (e.g. USA, France and Italy) (GACSA 2017).

This inevitably links GACSA administratively and politically to the FAO and its frames. For some, this gives some sense of legitimacy (interviewee 28), while for others, if GACSA truly is a multi-stakeholder platform it should be 'disjointed from the kind of UN system that it is currently housed in' (interviewee 37). GACSA is fully dependent on funding from a few (government) donors, which makes it susceptible to donors' frames and interests.

Lack of clear roles, procedures and governance structure: As a result of unclear and general roles and responsibilities, the role of the Annual Forum, for instance, is unclear. Also, the absence of a Facilitation Unit Coordinator for most of GACSA's existence has weakened the unit's role.

52 Joining the Strategic Committee is open to all members. As of October 2018 there were more than 60 organizations listed as part of the Committee.

Delimiting the problem and the solution: The common problem shared by GACSA members, as reflected in the Framework Document and confirmed by several interviewees, is the concern about the challenges faced by agriculture and food security/production in light of climate change. Despite this shared concern, stakeholders frame the problem and related issues differently. They share different views on what the main causes of the problem are and what needs to be done about it, and consequently, how GACSA can contribute to the solution. So, for instance, some see the problem as lack of food for current and future populations, which can be resolved through access, transfer and adoption of technology to increase productivity. Others see agriculture as an important GHG emitter, but also highly affected by climate change. Others think it is an economic and market problem that can be addressed with the appropriate policies and economic incentives, in particular for engaging the private sector. And finally, some perceive that the problems are caused by large-scale agriculture, including monocultures' expansion, use of agro-chemicals, land-grabbing, etc. (see also Karlsson et al., 2018). In general terms, problem delimitation is broad enough to be inclusive of different frames, but unspecific enough to delineate a direction for the solution (it can include 'everything').

4.5.4 LEVEL 4: Changing a Market

Five years after its launch, it is perhaps too early to evaluate the extent to which GACSA has been able to change the market or political order. GACSA is trying to interact with different market players and engage at different policy venues by expanding its membership and participating in different events. By recruiting private sector members, GACSA is aiming at influencing the market from within. Trade is recognized as an important tool for scaling up CSA (interviewee 22).

The way in which GACSA aims to change the market is determined by implicit frames**,** rather than by conscious framing efforts of its members. This can be observed in the creation of legitimacy and the proposed solutions, practices and technologies in the following manner:

Focus on the production side: GACSA's main focus seems to be on the production side of the food system and less on the consumer side (see GACSA (2018c)). Promoting more sustainable consumption patterns, e.g. less animal products or reducing food waste, is a frame that has a low presence in GACSA's work, and few or no members to promote it.

Product differentiation: Within GACSA, some see CSA as a way to differentiate their products from the competition and find new market niches and become more 'eco-competitive' (a combination of mitigation and productivity) (interviewee 22). They see GACSA as a platform for connecting with people involved in product trade, raw material procurement, etc. For some private sector members, it is also a competitive issue (Yara 2017: 13), while Syngenta is talking not only about CSA, but about 'climate-smart soils' and 'smart breeding' (Syngenta

2018). CSA has the potential to be used as a label for product differentiation, which then can have an impact on the market and the development of more (sustainable) niches.

Practices and technology: In general terms, the promotion of (CSA) practices and the use of technology form part of what GACSA stands for (GACSA 2014, 2018c). Technology is framed as necessary to increase productivity and feed nine billion people in 2050 (interviewee 47). For stakeholders in or outside GACSA, their perception of the technologies promoted by GACSA, factually or not, is a reflection of the frames of the dominant actors. For instance, one of the interviewees indicated: 'for the Americans, CSA is about biotechnology' (interviewee 17). Also the Consortium of International Agricultural Research Centers (CGIAR's) research on biotechnology (ISPC 2014) or World Bank funded programs supporting biotechnology (see for instance, West Africa Agricultural Productivity Programme (WAAPP) 2018) also implicitly bring this (controversial) issue into GACSA. At the same time, if stakeholders see that an important number of private sector representatives come from the fertilizer industry, they assume that the technologies promoted by GACSA support the use of these fertilizers.

Representativeness: The composition of its membership can be considered an important factor in gaining legitimacy in the sense of representing different sectors and a balanced northern and southern representation. The latter seems to be going well, since there seems to be a balance between Northern and Southern members (GACSA 2019). However, farmer organizations, as well as the fisheries and forestry sectors are under-represented (GACSA 2016b, 2019 and interviewee 37). The effective participation of NGOs is also limited due to resource constraints (interviewee 28).

4.5.5 LEVEL 5: Changing the Political Order

CSA, and consequently GACSA, are focused on an issue that had a history of 'longstanding contestations and longstanding, entrenched positions around the aims and means of agricultural development' (Karlsson et al. 2018: 154), therefore generating the desired transformational change has not been an easy task. However, GACSA has presented itself as a new space to discuss agriculture and climate issues.

The extent to and ways in which GACSA attempts to change political decision making, power distribution, and structures in society is characterized to a large extent by the dominant implicit *frames* present in GACSA:

Integration of climate mitigation and adaptation considerations: UNFCCC has characterized itself by its dominant frame on mitigation (Dewulf 2013). Mitigation and adaptation have usually been treated separately in UNFCCC, presenting important challenges to a sector that is both an emission source and vulnerable to climate change. GACSA has differentiated itself

from UNFCCC in this regard (although there are differences among its members with regards to the intensity that each pillar should have).

New multi-stakeholder platform: GACSA has been able to engage different stakeholders in a terrain that was dominated by governments, realizing that governments alone will not succeed in addressing agriculture and climate challenges.

Power imbalances: Despite this, some power imbalances present outside GACSA (see for instance, Clapp, Newell, and Brent 2018, Newell and Taylor 2018) are replicated within, where those with economic and political power have a strong influence on the direction and work GACSA does, and the most vulnerable, i.e. smallholder farmers, are under-represented or lack the resources for effective participation.

Less dominant frames present in more vulnerable sectors are even less represented (e.g. smallholder farmers, women, and youth), so solutions are not necessarily going to address their specific needs or core issues. Solutions proposed are a result of dominant frames.

Smallholders versus large-scale farming: In general, GACSA members agree that in the context of agriculture, farmers should be at the center of any effort to combat climate change (GACSA 2016b). However, the size, resources, and market access that farmers have varies from country to country (and also within countries). These different understandings of what a farmer is creates different expectations of what support they will need and how GACSA can facilitate this. At the same time, based on its membership composition, there is a perception that GACSA supports large commercial agriculture more than smallholder farmers (interviewee 46).

The Intergovernmental Panel on Climate Change (IPCC) and many others highlight agriculture's contribution to global GHG emissions (FAO 2014, IPCC 2014b, World Bank 2017b, CGIAR/CCAFS and FAO 2014, Lipper et al. 2014), framing agriculture as part of the problem (and the solution) without differentiating between large-scale agriculture and smallholder farmers and their share in these emissions. This framing creates some friction and frustration among smallholder farmers, who consider their share in these emissions as significantly less[53], they feel blamed for something that is not their responsibility (interviewees 41 and 46).

Lack of social issues and rights: Production, science and technology are central to CSA and GACSA's work, but some consider that issues such as social dynamics at household and community levels are missing (interviewee 28). Matters related to land rights, informed

53 However, Vermeulen and Wollenberg (2017) provide a rough estimate that smallholder farmers contribute to 3,5 percent of global GHG emissions and to 5,1 percent of global GHG including deforestation due to smallholder farming. There are close to 500 million smallholder farms around the world (Lowder, Skoet, and Raney 2016), however, so the relative contribution per farm is low.

consent, and access to natural resources are missing in CSA discussions (Interviewee 28), as well as access and sharing of technologies and land distribution (Newell and Taylor 2018).

National or local level: In terms of structural change, GACSA's work is focused on the national or local levels (see for instance GACSA 2018a, b), and less so at the international reforms needed and how foreign (or global) policies affect the national level. GACSA's emphasis on the national level is perceived by some as supporting a shift in (historical) responsibilities (interviewee 23), as some CSOs 'have argued that CSA in effect could displace mitigation responsibility from the global North, and re-scale it onto poor and vulnerable populations by situating the causality of the problem in current agricultural practices in the South' (Karlsson et al. 2018: 159). Other issues like impact of trade agreements or subsidies on farmers or on production, or how consumption in some parts of the world affect deforestation in developing countries are not part of the discussion, though they are in fact key for transforming the agriculture sector (see for instance, IPBES (2018)).

From global to national level (top-down): GACSA and many of its members are engaged in international processes, especially those related to climate change and food and agriculture, so it sees a niche for its role in supporting the implementation of international goals at the national level, including agriculture related National Determined Contributions (NDCs) and the Sustainable Development Goals (GACSA 2018c).

Table 4.2 summarizes the main issues at each level.

Table 4.2 Framing in the Partnership Ladder for GACSA

	LEVEL 1 Building trust	LEVEL 2 Creating collaborative advantage	LEVEL 3 Constructing a rule system	LEVEL 4 Changing a market	LEVEL 5 Changing the political order
Main framing aspects	Openness, use of familiar definitions. Creating a safe and equal environment. Sense of voluntary alliance; recognition of UNFCCC	Flexible membership criteria. More interest in agenda setting than in definitions. Opposition of some CSOs. Concerns about certain members and their prevailing frames. Lacking clear definitions, it is assumed that GACSA supports powerful members' frames	Different frames in terms of problem definition Not too prescriptive. Based at FAO and funded by few governments. Lack of clear roles, procedures and governance structure. Weak accountability for impacts. More focused on food production than food security.	Diverse membership composition on paper; more focus on (crop) production and less on consumption issues CSA used by some as product differentiation strategy Effective participation limited by lack of resources. Technologies used (including biotechnology) are interpreted as a reflection of dominant actors' frames	Multi-stake- holder platform. Reflection of existing power imbalances. No discussion on rights or social issues. Focus at the local and national level. Connecting international with national levels. Less focus on smallholder farming. Transformative change not addressed. Frames of vulnerable groups less represented.

4.6 Discussion and Conclusions

We have built on the Ladder of Partnership Activity by Glasbergen (2011) to increase our knowledge of the role of framing in the creation and evolution of the partnership GACSA that integrates agriculture and climate change considerations. The different members bring a diversity of frames, interests and understandings regarding, among other issues, what the problem is and what needs to be done about it.

We see that framing has played a key role throughout the evolution of the partnership, ranging from strategic framing in its early stages, to more implicit and unconscious framing in the later stages (Table 4.3).

Table 4.3 Role of Framing in the Different Levels in the Partnership Ladder for GACSA

	LEVEL 1 Building trust	LEVEL 2 Creating collaborative advantage	LEVEL 3 Constructing a rule system	LEVEL 4 Changing a market	LEVEL 5 Changing the political order
Role of framing	Strategic and conscious framing to create a sense of trust	Strategic framing; frames of dominant actors start shaping the partnership's direction	Strategic framing: Conscious attempt to be flexible in the delimitation of issues. Implicit framing: Dominant frames determine suggested solutions	Frames implicitly focus on production and development of more sustainable markets/ niches and not on consumers	Dominant frames in the partnership unconsciously favour the status quo in the agriculture arena; transformative change not enabled.

In its early stages, framing was consciously used to attain certain goals. In what Bedford and Snow (2000: 624) call 'strategic processes', for instance, core partners were able to use framing in an strategic way to show their readiness to collaborate and be inclusive. However, as the partnership evolves and membership increases, the direction of the partnership is set by the dominant, implicit frames of powerful actors, who prefer to limit the discussion to matters related to deployment and adoption of technologies, practices, rising productivity, market development and expansion, and leave out some other fundamental issues for agricultural transformations to occur, mirroring current CSA critiques (Clapp, Newell, and Brent 2018, Newell and Taylor 2018). Members engage with their preconceived frames

without necessarily being aware of them (Ernste 2012). As stated by Rein and Schön (1993: 158), 'the more natural and taken for granted the frames that shape our thinking, the less likely we are to be aware both of our frames and of the social carriers that interpret policy issues in terms of frames.'

Findings show that the membership composition influences the framing at the different levels of the partnership, but at the same time, frames shape members' perspectives, confirming Schön and Rein's (1994: 29) view that 'interests are shaped by frames, and frames may be used to promote interests'. Membership composition is also used to gain legitimacy in later stages (for instance, ensuring that northern and southern views are represented and that the different sectors are part of GACSA), though, representation is not the same as engagement or participation. Smallholder farmers continue to be under-represented and several NGOs lack the resources to fully engage. Through framing, some actors and interests will be included, and some (consciously or unconsciously) excluded (Dewulf 2013, Pettenger 2007). Frames that focus on how to improve access to healthy and nutritious food (food security, not food production) and reduce inequality are less visible, as they seem to be made invisible/obscured by dominant frames that focus more on productivity.

Findings also confirm that the frame configuration, as explained by Dewulf et al. (2004), has become so heterogeneous due to its large membership that it is difficult to find common ground (beyond broad agreements). In a multi-actor context, the presence of diverse frames can lead to conflict, affecting decision making (Dewulf et al. 2011), and consequently, the achievement of common goals.

Three out of the four CSA discourses, as identified by Karlsson et al. (2018) (agriculture as a problem and solution to climate change; the agricultural transformation to increase productivity; and the role of the agro-industry) co-exist in GACSA, while the fourth one (community-based and agroecology perspectives) is less represented, and in some cases, in conflict with the approaches supported by GACSA. The latter is mostly supported by those NGOs opposing GACSA and CSA in general. The 'productivist' and technological frames present in the first three discourses are what allow them to co-exist.

Similar to other concepts, e.g. 'sustainable development' (Connelly 2007, Holden, Linnerud, and Banister 2014), we see CSA and its pillars as an example of a concept that means different things to different people. As shared by Dewulf et al. (2011: 53): 'Often it looks like everybody is talking about the same thing, while they frame that 'same thing' in very different ways and thus get stuck in endless discussions'. The ambiguity of the term CSA has allowed stakeholders to develop their own interpretations, enabled by a 'generic discourse' (Clapp, Newell, and Brent 2018: 81) or what Candel et al. (2014) call a 'consensus frame'. As indicated by Chandra et al: 'Without such clarity, unsustainable models of agriculture

may likely be reinforced, justified, and re-branded as CSA' (Chandra, McNamara, and Dargusch 2018: 536). In the context of a partnership, the implicit framing seems to be that of the dominant actors. Even when actors come together and try to find common ground and reframe the issues, those outside make assumptions of what CSA means or what the partnership stands for, based on who the dominant actors in a partnership are. CSA continues to be challenged and interpreted differently by the wide array of actors, who share different views regarding what it means, what is it trying to solve, how, and who should undertake action.

GACSA has faced resistance from various civil society groups, who seem to share a different frame on addressing the problems faced by agriculture in light of climate change. Despite GACSA's efforts in approaching these groups, at the end, some frames seem to be irreconcilable or too conflictive to be combined or integrated. Perhaps, while keeping in mind the compatibility of frames, multiple instruments or approaches need to be developed to address the challenges in the agriculture-climate nexus, focused on what will be more appropriate for the differing actors, including smallholder farming, large commercial agriculture, or consumers. Some will have more emphasis on adaptation, others on mitigation. While this reinforces the fragmented nature of the agriculture and climate change governance systems, sometimes it is just not possible to be 'all-inclusive', or have one single solution for all, as stated by Ostrom (2012). Frames are indeed an indicator of fragmentation.

Despite this fragmentation and the current GACSA and CSA focus on farm level, science, production and technology issues, broader discussions and more meta-governance are needed – nationally and internationally – to enable the transformative change that the agriculture governance system needs to undergo, including in terms of the production of and access to healthy and nutritious food, environmental sustainability, the full food system (from production to consumption), interlinkages to other sectors, such as forestry, and equity and animal welfare concerns (see e.g. Visseren-Hamakers 2018 and IPBES 2018).

While there are many interpretations and understandings of CSA, the concept has been successful in raising climate change issues in the agriculture agenda and vice versa, though its applications differ. Further research would benefit from analyzing the impact of trade in the agriculture-climate nexus. What we eat, when we eat it and where our food comes from is often determined more by trade and market considerations than the agriculture or climate change governance systems. Governance of the agriculture-climate nexus needs to take this influence into account to successfully enable the development of sustainable global food production.

Chapter 5

Conclusions

'When I use a word,' Humpty Dumpty said in rather a scornful tone, 'it means just what I choose it to mean—neither more nor less.' 'The question is,' said Alice, 'whether you CAN make words mean so many different things. 'The question is,' said Humpty Dumpty, 'which is to be master—that's all.''
Quote from 'Alice through the Looking-Glass', by Lewis Carroll (1871)

5.1 Introduction

This dissertation has studied the interaction among forest, agriculture and climate change. Forest and agriculture are indispensable for sustaining life on our planet. Forests play a key role in regulating our climate, protecting water sources, providing livelihoods to millions of people and safeguarding biodiversity, just to mention a few qualities. Agriculture, on the other hand, provides an income source and livelihoods for millions of farmers around the world, and has fed humanity for thousands of years and will continue to do so. Effects of climate change are becoming more visible, not only affecting forest and agriculture and their functions, but also basic human rights (e.g. shelter, food, social security). Both deforestation and agriculture also have an impact on climate change, and most deforestation is caused by commercial agriculture (Kissinger, Herold, and De Sy 2012). As introduced in Chapter 1, forest, agriculture and climate change governance systems are highly interlinked, in terms of, inter alia, socio-economic activities and/or biogeophysical space. Young (2002b) refers to this as functional interplay. Policies and rules in one domain can have (positive or negative) implications in the other domain(s) and affect their ability to develop, implement and execute their own policies and rules (Visseren-Hamakers 2018b, a), as well as to achieve their (sustainability) goals (Salvini 2016). In this regard, policy discussions and research addressing policy integration and coherence have received greater attention in the past years, in an effort to study and identify synergies and reduce trade-offs among economic sectors, improve resource efficiency, reduce conflicting policies and address policy fragmentation (Underdal 1980, Biermann, Davies, and Grijp 2009, Roe 2010, Lafferty and Hovden 2003, Visseren-Hamakers 2015, 2018b, European Commission 2019, High-level Panel on United Nations System-wide Coherence 2006). At the same time, there is an interest in enhancing the necessary transformations or transformative changes to achieve sustainable development, by departing from the business as usual scenarios and promoting a transition in the way the sectors have been operating, for instance, by undergoing structural and systemic changes and creating an enabling environment (e.g. coherent policies at all levels, creating or strengthening institutions, enhancing investments in strategic areas, including (sustainable) infrastructure and research); reducing inequality; improving the

type, quality and quantity of food, including more nutritious food (Campbell et al. 2018, FAO 2013, Thematic Group on SAFS 2015, Pelling 2010). IPBES (2019b: 6) defines transformative changes as ''A fundamental, system-wide reorganization across technological, economic and social factors, including paradigms, goals and values''.

This dissertation has addressed the nexus of forest, agriculture and climate change within Global Environmental Governance debates, and has combined Integrative Governance concepts with frame theory. Studying frames and framing can bring important insights for understanding fragmentation and promoting policy coherence. It is an element that so far has received little attention in global governance literature[54], but with the recognition of the importance of language in social science, and its non-neutral nature (Brink and Metze 2006, Hajer 1993, Hajer and Versteeg 2005), it can help us enhance our understanding of the complex web of global governance.

This dissertation has aimed to further our knowledge on the role of framing in the integration of current global governance in the nexus of forests, agriculture and climate change (Chapter 1, this dissertation). It has done so by answering three research questions, starting with a broad analysis and then narrowing down to specific efforts at the intergovernmental level, as well as outside the traditional intergovernmental mechanisms:

> ***RQ1: What efforts have been made to enhance the integration among the forest, agriculture and climate change governance systems and how does framing contribute to the degree of integration?***
>
> ***RQ2: How did forests receive an increasingly prominent place on the global climate change agenda, while agriculture is still lagging behind, and what role has framing played in this degree of integration?***
>
> ***RQ3: How and to what extent has framing played a role in the design and evolution of the Global Alliance on Climate Smart Agriculture (GACSA)?***

This chapter presents the main conclusions of this dissertation. It is structured in the following manner: after this introduction, it is followed by Section 5.2 which contains the main conclusions and results, divided in three sub-sections, which aim to answer each research question based on the empirical chapters. After this, a general synthesis and discussion in relation to the aim of this research will be undertaken in Section 5.3. Subsequently, Section 5.4 introduces some reflections regarding the theoretical and conceptual frameworks used and ideas for further research, followed by a reflection on study methods in Section 5.5. It ends with some policy recommendations in Section 5.6.

54 Same as discourses, see Pattberg et al. (2014)

5.2 Conclusions and main results

5.2.1 Efforts to enhance integration and the role of framing

Forest, agriculture and climate change domains are linked in several ways, including in terms of biogeophysical space and socio-economic activities. Policies and rules in one domain can affect the effectiveness with which the other domains attain their (sustainability) goals. Research question 1 assessed interplay management efforts to enhance policy coherence through integration for pairs of domains (forest-agriculture; agriculture-climate change; climate change-forest), and then for the nexus of the three. It also assessed the extent of integration. This was addressed in Chapter 2 of this dissertation. The analysis builds on the framework by Karlsson-Vinkhuyzen et al. (2011), which addresses interplay management[55] efforts and uses two elements to assess integration: degree of legalization – measured in terms of type of norms and rules (soft or hard law) and their density (quantity) – and direction of integration between the different policy domains. This framework was enriched with the addition of a framing dimension. The analysis was preceded by an overview of each of the governance systems in terms of dominant frames, type of norms and rules, and degree of legalization.

Findings show firstly that efforts to enhance integration among pairs of domains or the nexus of the three have taken different forms, with greater efforts/results shown in the soft law realm (for instance, ministerial declarations, resolutions), the development of programmes by certain international organizations addressing two or more domains (e.g. World Bank's Forest Carbon Partnership Facility), promotion of integrative approaches (such as agroforestry, landscape approach or climate smart agriculture), and also framing (as in the case of the fifth IPCC Assessment Report, where agriculture and forest were grouped under one heading: AFOLU- Agriculture, Forestry and other Land-Use).

Secondly, the extent of integration has varied for pairs of domains, with some differentiation between climate change mitigation and adaptation. These results were explained by two elements: degree of legalization and dominant frames for each governance system. The three governance systems present medium to high degrees of legalization:

55 Interplay management is then defined as 'conscious efforts by any relevant actor or group of actors, in whatever form or forum, to address and improve institutional interaction and its effects' (Stokke and Oberthür 2011: 6).

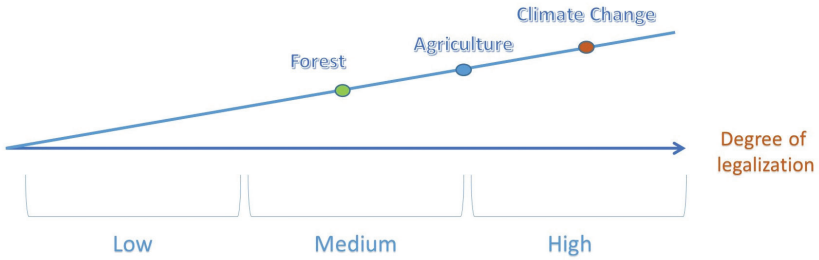

Figure 5.1 Degree of legalization for each governance system

Soft law instruments prevail in the fragmented forest governance system, while agriculture has a mix of soft and hard law instruments, especially in the area of trade. As for climate change, it is also considered a fragmented governance system, with a strong United Nations Framework Convention on Climate Change (UNFCCC) setting the direction.

As for the dominant frames, forests' framing has evolved over time: they went from being considered 'lazy' or unproductive lands, to lungs of the Earth, and more recently: carbon sinks. The dominant frame in agriculture has centred on the need to increase agricultural production in light of expected population growth (approximately 9 billion people by 2050). Finally, climate change framing has evolved from being considered an environmental issue, to become a broader sustainable development concern, tackling a wide array of aspects such as development, security, trade, health, etc. The dominant frame seems to be focused on mitigation (though, after the Paris Agreement, more attention is being paid to adaptation due to the pressure of many developing countries and other stakeholders, but still, the emphasis continues to be on mitigation). A change in the conceptualization of the 'common but differentiated responsibilities' principle is also leading to a different understanding in the differentiation among countries, where the North-South divide is evolving into a more self-defined approach, based on national capacities and priorities, as determined by each Party to UNFCCC in the Nationally Determined Contributions[56] (NDCs). The implication of the latter in relation to the degree of integration is that developing countries are more pressured now to undertake actions, including in sensitive sectors such as agriculture. As a result, some developing countries are resisting the formal integration (e.g. through a work programme) as well as comprehensive integration (both mitigation and adaptation) of agriculture and climate change considerations, since they are afraid this can lead to binding targets. See Table 2.2 in Chapter 2 for an overview of the dominant frames in each governance system, as well as the degree of legalization.

The combination of the different frames and the degrees of legalization in highly fragmented governance systems has resulted in different integration levels (for the different directions of integration), as shown in Table 5.1.

56 NDCs are the objectives that each Party to UNFCCC, voluntarily and based on their national capacities, aims to achieve to contribute to the Paris Agreement's goals (see (UNFCCC 2015, article 4.2).

Table 5.1 Integration and direction of the integration

	Forest (into...)	Agriculture (into...)	Climate Change (into...)
...Forest		Less integration • Conflictive frames among forest (i.e. forest as sinks) and agriculture (i.e. increase production) • Fragmented governance systems (multiple norms and rules, and soft and hard law instruments) with no overarching institution	More integration • Frames are compatible among forest (i.e. forest as sinks) and climate change (i.e. focus on mitigation) • Fragmented forest governance system (multiple norms and rules, and soft and hard law instruments) with no overarching institution, that in combination with compatible frames, facilitates integration
...Agriculture	Less integration • Conflictive frames among forest (i.e. forest as sinks) and agriculture (i.e. increase production) • Fragmented governance systems (multiple norms and rules, and soft and hard law instruments) with no overarching institution		More integration on the adaptation side Less integration on the mitigation side • Conflictive frames on the mitigation side (i.e. increased production in agriculture may lead to higher emissions, which will conflict with mitigation focus under climate change) • Fragmented and no overarching institution in agriculture (multiple norms and rules, and soft and hard law instruments)
...Climate Change	More integration • Frames are compatible among forest (i.e. forest as sinks) and climate change (i.e. focus on mitigation) • Though integration has been slow due to high degree of legalization of climate change and core position of UNFCCC.	More integration on the adaptation side Less integration on the mitigation side • Conflictive frames on the mitigation side (i.e. increased production in agriculture may lead to higher emissions, which will conflict with mitigation focus under climate change) • High degree of legalization of climate change and core position of UNFCCC	

As shown in Chapter 2, while the degree of legalization, including the presence of a dominant institution, is an important factor to take into account when undertaking interplay management efforts aiming at the integration of issues into a governance system, the compatibility of frames will be key for facilitating or hindering integration (see Table 2.3, Chapter 2).

To summarize, different interplay management efforts have been undertaken to integrate forest, agriculture and climate change governance systems, mostly in the context of soft law agreements; programmes; integrative approaches, in particular at the local (farm) level; or using framing as a means to integrate them. Differences in dominant frames among the domains and their compatibility to some extent explain the success or obstacles in achieving integration.

5.2.2. Agenda-setting and the integration of forest and agriculture into the climate change agenda

Forest and agriculture are affected by climate change, but at the same time, are important contributors to the phenomenon. Addressing their inter-relationship and integration of certain policies can assist in improving policy coherence (for pairs of domains or the nexus of the three). Integration can be achieved through different means, including through agenda setting. This research question used agenda-setting theory and framing to assess the integration of forest and agriculture into the global climate change agenda, in particular UNFCCC as the main institution for the development of climate policy. This was addressed in Chapter 3. It builds on Kingdon's Multi-Stream Approach (MSA), which addresses three independent streams: problem, policy and political. According to Kingdon (2014), the *problem stream* considers the ways in which policymakers are alerted about the problems (e.g. reports, indicators, important events, such as natural disasters). The *policy stream* addresses the solutions available, which should consider technical feasibility, values not in conflict, and potential limitations (e.g. financial, public opinion). Finally, the *political stream* deals with the political mood, coalitions, bargaining, jurisdiction, among other factors influencing the agenda from the political level. These streams converge due to efforts by committed policy entrepreneurs when a window of opportunity opens up.

This framework was enriched with a framing layer, considering framing to play a substantial role in defining the problems, policies and politics, as well as in connecting them (Sarmiento-Mirwaldt 2015). Specifically, this research question addressed the integration of tropical deforestation into climate change through REDD+ (Reducing Emissions from Deforestation and Forest Degradation) in a ten-year time frame (from 2005 when it was introduced in the Subsidiary Body for Scientific and Technological Advice (SBSTA) agenda, till 2015 when the Paris Agreement was adopted), as well as more recent efforts aiming at the inclusion

of agriculture on the climate change agenda (from 2011 when it was introduced in SBSTA's agenda until 2015 when the Paris Agreement was adopted).

Findings show first that the role of framing has been key in the different streams and in setting the direction for future action (see Tables 3.6 and 3.9 in Chapter 3). After entering the climate change decision agenda, tropical deforestation, through REDD+, has managed to be sustained for more than 10 years now. REDD+ was also mentioned in Article 5 of the Paris Agreement, signalling it implicitly as part of the solution. Starting with the *problem stream*, the introduction of REDD+ into the agenda came at a time where climate change concerns had high international visibility (due to extreme weather events in developed and developing countries) and developing countries were being pressured to undertake mitigation actions. Different reports pointed at tropical deforestation as an important contributor to climate change. As such, deforestation was framed as a GHG emissions problem. As for the *policy stream*, different methodologies and guidelines were developed, fulfilling knowledge and technical gaps and demonstrating that a solution was feasible. Funding was also pledged by developed countries. REDD+ was presented as a cost-effective solution to reduce GHG emissions. Forests were framed as sinks. With regards to the *political stream*, there was pressure not only to include other sectors contributing to climate change, such as the land-use sector, but also other countries besides developed countries, as emissions in some developing countries had become significant. An important and strong coalition of developing countries was key as a negotiating block in support of REDD+. The OPEC (Organization of the Petroleum Exporting Countries) – a strong block at UNFCCC – was vigilant but non-obstructive, as a focus on forest would deflect attention away from fossil fuels. Also, the fact that most forests worldwide are owned by the State contributed to governments seeing some opportunities for increasing their funding through REDD+. Finally, framing in inclusive terms to gain support was key, for instance, by expanding and including issues that were of interest to certain actors so that they would step in (e.g. inclusion of forest degradation was key for African countries; and safeguards were important to many developed countries and pressure groups). The role of policy entrepreneurs in introducing and sustaining the item on the agenda has been instrumental since the beginning. Policy entrepreneurs led an important coalition of developing countries supporting the issue, besides which the role of 'champions' has also been highly valuable (e.g. Nobel Prize Laureates such as Joseph Stiglitz and Wangari Maathai; as well as other public figures like Prince Charles and Johan Eliasch).

Agriculture's integration on the other hand, has proven to be even more complex. While it is recognized as highly vulnerable to climate change, accounted for under national GHG emission inventories[57], and on SBSTA's agenda since 2011, no significant decision has been made, except for the agreement in 2017 to work on the 'Koronivia joint work on agriculture', which still needs to generate some action and depart from the series of workshops that have

57 As any other sector, though level of regulation has varied among the sectors (Chapter 2, this dissertation).

characterized agriculture discussions since it was introduced in the agenda in 2011. Article 2 of the Paris Agreement warns that any effort to adapt or reduce emissions should not 'threaten food production'. This sets productivity as the priority for agriculture (not on food security nor changing consumption patterns). As for the *problem stream*, concerns exist over agriculture's GHG emissions' increase and its encroach on forested areas. Different reports show how emissions in agriculture have increased in the past years, particularly in developing countries. At the same time, dominant frames point at the need to increase productivity to feed growing populations, while minding the environment. Regarding the *policy stream*, there are concerns over the technical feasibility, due to lack of data and technical and adoption barriers of the millions of farmers around the globe, making monitoring and measuring progress difficult. Agriculture is an important sector in many developing countries, representing a high share of their GDP. In this regard, there are serious concerns that limiting agriculture emissions will have an effect on food security, but mainly, on food production, thereby becoming a trade barrier. There is also fear of setting binding commitments and targets for agriculture. Shifting unsustainable consumption patterns is an important challenge that has received less attention. In the *political stream*, a block of developing countries (G77) was impeding progress, and a unified group to counter-pressure was missing. The relevance assigned to mitigation and adaptation varies among countries, as well. Internally, in many countries climate negotiations fall under the jurisdiction of Ministries of Environment or Foreign Affairs, this, together with existing tensions among Ministries of Agriculture and Environment in some countries, as some of their policies conflict with one another, affects the relevance assigned to agriculture. At the same time, the sensitivity of the issue reduces the political support for integrating agriculture into the climate negotiations. The evolution of the common but differentiated responsibility principle to a more self-defined approach, based on contributions – not commitments – has opened the door for agriculture to be included in the NDCs, though common understandings, and technical and political agreements to regulate agriculture are still open or under discussion. Provision of funds in a predictable and sustainable way to demonstrate political will to truly integrate agriculture into climate change agenda has been insufficient. Finally, committed and perseverant policy entrepreneurs with presence and (unified) voice in the negotiations – and who are trusted by the different blocks – have been lacking in the case of agriculture. Sir John Beddington (former UK Chief Scientific Advisor) can be considered a champion for agriculture being included in SBSTA's agenda.

The relationship among the three domains is quite complex: on the one hand, agriculture has been framed as a problem and a threat to forests; on the other, agriculture has the major role of feeding humanity, which for some means that productivity has to be increased, especially in light of current world population projections; and finally, both forest and agriculture are highly vulnerable to climate change but are also GHG emission sources. Their negative effect on GHG emissions has been highlighted to justify action (meaning they

are part of the problem AND the solution). Despite the inclusion of agriculture into the Nationally Determined Contributions (NDCs) shows some positive steps, the policy stream is still missing a proposal that addresses incentives and the multiple objectives of agriculture, as well as a clear political will to move the issue forward into the decision agenda.

Finally, findings also suggest that the role of framing in relation to integration via agenda setting (in this case, integrating an issue into the global climate change agenda) can be used by policy entrepreneurs in a *strategic manner* in the different streams and in the inclusion of other policy entrepreneurs or champions. This is shown in Table 5.2, where the MSA has been expanded to include the role of (strategic) framing in each stream. Problems can be framed and reframed in different (or new) ways, in other words, they can be transformed in manners that support the policy entrepreneurs' suggested course of action, selecting certain reports and scientific data that make their case stronger, and leaving other aspects out. A solution and way forward should be framed as feasible, being sensitive to matters that interest or concern the policy community. And finally, keeping the political dynamics in mind, matters can be framed and reframed in ways that gain more support from other stakeholders, and political will can be shown through different means (e.g. financial support, high level participation, cooperation). Strategic framing also plays a role in the selection of the appropriate partners and champions, looking at those actors that will bring a positive image, credibility and strength to the cause pursued, and that can pull in other supporters (not necessarily to become policy entrepreneurs, but part of the coalition).

Table 5.2 Role of framing in agenda setting in the MSA

	Streams			
	Problem	**Policy**	**Political**	**Policy entrepreneurs**
Use of framing	• highlight some parts of the problem and leave other aspects out • back up problem with science, as appropriate • reframe, if necessary, so problem is viewed from different (new) angle	• frame solutions in a compatible manner • formulate solutions in line with values appreciated by the policy community • demonstrate a solution is feasible • link with broader processes such as the SDGs	• include elements that are of interest to others in order to increase support • reframe, if necessary, to gain support from different coalitions • show political will in manners that are valued by the policy community	• identify entrepreneurs that are reliable to others and strong and renowned on the issues promoted • identify and benefit from champions that share problem and/or solutions proposed, and can influence the political process

To summarize, the integration of forest and agriculture into the climate change agenda has not been an easy task. Technically and methodologically, both presented important challenges at the time they were introduced onto the SBSTA/UNFCCC agenda. However, the circumstances and actors involved, as well as the dominant frames, are quite different.

The framing of deforestation as an emissions problem – compatible with the dominant mitigation framing of climate change—, as well as the identification of solutions, political will, resources allocated and committed and perseverant policy entrepreneurs, led REDD+ to a level of maturity and common understandings that allowed for the development of its framework. This has not been the case for agriculture, where, among other reasons, its dominant frame is connected to the need to increase production, which makes it problematic in the context of mitigation and potential GHG emission targets/limits.

5.2.3. Framing in the design and evolution of GACSA

The role of non-state actors in addressing global sustainability problems has increased over the past years, particularly since the 1990s (Chester and Moomaw 2008, Arts 2006, van Asselt 2014, Biermann, Mol, and Glasbergen 2007). They have filled important gaps in terms of regulation, implementation and participation (Biermann et al. 2007). The integration of agriculture considerations into the climate agenda at the intergovernmental level has proven to be a difficult endeavour due to the fear that its discussion will lead to commitments and targets for agriculture. This is why looking at efforts to integrate agriculture and climate change outside the traditional intergovernmental mechanisms can also shed some light on whether and to what extent framing has played or can play a role. To address this research question, the Ladder of Partnership Activity (Glasbergen 2011) and framing theory were used to understand the role played by framing in the design and evolution of a partnership, in this case the Global Alliance on Climate Smart Agriculture (GACSA). Within GACSA, agriculture and climate change considerations are being integrated through the concept of Climate Smart Agriculture. This was addressed in Chapter 4 of this dissertation. As of June 2019, GACSA gathers more than 280 members (GACSA 2019), from different backgrounds, interests, and expectations, from the academic and research community, NGOs, the private sector, governments and farmer organizations. Different frames converge at GACSA and influence its development and direction, making it a compelling case to analyse the role of framing in the design and evolution of a partnership, enriching the literature involving framing as well as global governance, in particular partnerships.

The Ladder of Partnership Activity consists of five levels, starting with an exploratory phase and finishing when the partnership manages to influence the political order. Specifically, the levels are: 1) building trust (exploratory phase, cultivating a willingness to collaborate and an awareness of each other's interests), 2) creating collaborative advantage (finding common ground for building a partnership); 3) constructing a rule system (establishing common rules to which all partners will adhere); 4) changing the market (presenting itself as a legitimate option, known by the market players, practices shared); and 5) changing the political order (affecting decision making, its content, and structures) (Glasbergen 2011).

Findings show first that GACSA, as a partnership that stands for the concept of Climate Smart Agriculture, is not free from same concerns and questions that exist around the 'controversy' of CSA[58]. Different interpretations exist around the three CSA pillars (adaptation, mitigation, and productivity) and the balance among the three. CSA, an approach that integrates agriculture and climate change considerations, is part of the concepts in sustainable development debates, which have different meanings to different people, starting with the concept of sustainable development itself (see for instance, Connelly 2007, Kates, Parris, and Leiserowitz 2005, Holden, Linnerud, and Banister 2014). Thus, GACSA has not engaged in a discussion on what CSA is and is not, benefiting from this 'generic discourse' (Clapp, Newell, and Brent 2018: 81). It has adopted instead the broad definition used by FAO (2013). This has had its advantages, as FAO is considered a trustworthy actor by many, so time and resources have been invested in other issues, but at the same time, other actors are opposed to a concept that lacks clarity and exhibits multiple interpretations.

Secondly, findings show that based on the Ladder of Partnership Activity, framing has played different roles in the different levels. While present in every level, framing is more strategic and conscious in the early stages of partnership formation and becomes more tacit and unconscious in the later levels as certain frames start to dominate. This can be visualized in the following figure, where strategic framing as well as implicit, tacit frames are present at every level, but with varying intensity. The yellow fades out as strategic framing becomes less intense, and the blue becomes stronger to illustrate how the dominant frames, tacitly or unconsciously, grow in strength.

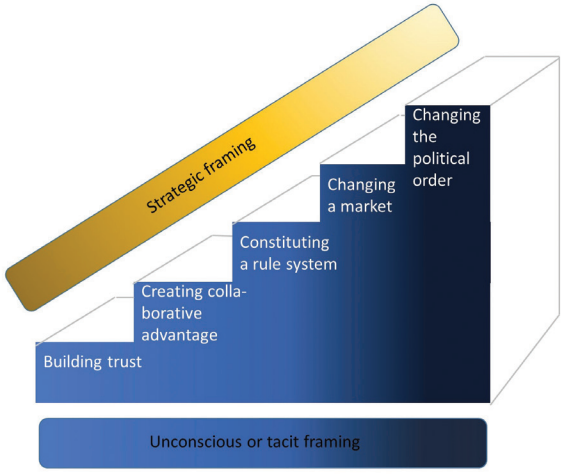

Figure 5.2 Role of framing at different levels of the Ladder of Partnership Activity

58 For concerns and critiques around CSA, see for instance Clapp et al. (2018); Karlsson et al. (2018); La Via Campesina (2014); Newell and Taylor (2018).

Thirdly, due to the diverse and wide membership composition, findings show that the frame configuration in GACSA is quite heterogeneous. Thus, it is difficult to find common ground beyond being an information and knowledge sharing platform. Some members would like GACSA to be stronger on implementation, policy development, setting standards or definitions, but the current framing and resources available are not in line with these expectations.

Fourthly, findings also show that while GACSA has made an effort to be inclusive, establish very few membership requirements, remain general and avoid lengthy discussions regarding what CSA does and does not entail, stakeholders look at who is part of GACSA and assume what definition lies behind the concept based on the member composition. For instance, since there is an important representation of the fertilizer industry in GACSA, some stakeholders assume that the use of chemical fertilizers are part of the CSA approach; if the World Bank, a leading actor in GACSA creation, has supported market approaches and carbon off-sets, other actors assume CSA entails carbon emissions trading. Some of these approaches might be acceptable for some and in conflict with other framings.

Finally, Karlsson et al. (2018) identified four discourses in CSA debates, i.e.: as global climate policy mechanism (agriculture as problem and solution); agricultural transformations to increase productivity; enhancing the role of the agro-industry; and community-based and agroecology perspectives on CSA. Based on them, it is concluded that the first three discourses seem to co-exist in GACSA, while the last is less represented and sometimes in conflict with the prevailing frames. These three discourses are able to co-exist under GACSA as the main frames behind them are not in conflict with each other, for instance, all three share the frame of increasing productivity and are open to technological development to achieve this (though perhaps some discourses have more emphasis on productivity or technology than the others). Development of different instruments and approaches, at multiple scales, responding to the different frames, in line with what Ostrom (2012) calls a 'polycentric approach', might be the way forward for the agriculture and climate change nexus, with implications for fragmentation.

To summarize, framing has played an important role in the design and evolution of GACSA throughout the different levels of partnership formation, ranging from more strategic in its early stages, to more unconscious and implicit framing in the later stages. Membership and consequently, frames, are rather heterogeneous, leading to a common ground that is quite broad.

5.3. General synthesis and discussion

This dissertation has aimed to increase our knowledge of the role of framing in the integration of current global governance in the nexus of forests, agriculture and climate change. The three domains are highly interdependent and efforts to enhance coherence through some level of integration could improve synergies and reduce trade-offs. Addressing each of them in a disconnected manner, without looking at their interlinkages and implications of their policies in other domains can result in overall inefficiency of the global governance system of each domain, and will not achieve sustainable development. However, successful integration is not an easy task. Framing, as stated in Chapter 1, has not received sufficient attention in fragmentation/ integration research. This dissertation has aimed to contribute to this knowledge gap. The following sub-sections identify key aspects and reflections on frames and framing in enhancing integration and addressing fragmentation.

5.3.1 Precondition and enabler for integration

Results show that, though not the only factor influencing (the extent of) integration, frames contribute to integration in the following ways: *compatible frames* can facilitate integration or at least, not prevent it; *frames that neither conflict with each other, nor are compatible*, can have some impact on integration or have a neutral effect; and finally, frames that are *conflicting* can prevent integration (or make integration not possible). *Compatible* or at least *non-conflicting frames* seem to be a **precondition** for interplay management efforts to increase its potential to achieve integration.

This is consistent with what several scholars have highlighted regarding the presence of conflictive frames and how they may lead to conflict (Schön and Rein 1994, Yanow 2000, Daviter 2007), particularly in policy issues where a wide array of actors are involved (Candel et al. 2014). In some cases, actors may be unaware of their tacit or implicit frames that generated this controversy in the first place (Ernste 2012, Schön and Rein 1994), preventing the achievement of common goals or agreements, as well as integration. We can see this in Chapter 4, where despite the efforts of GACSA to respond to civil society concerns, the differences in framing are so fundamental that no progress has been made (for instance, the means and reasons to achieve agricultural productivity differ among them). And while some frames are tacit or implicit, framing can also be used in a conscious way to hinder or enhance integration, for instance, by framing an issue in an incompatible way so that no agreement is reached. An example of this can be seen in Chapter 2, by those objecting the discussion of agriculture in UNFCCC – in particular, the mitigation component. They argue that in light of growing populations, mitigation efforts might threaten food security and national sovereignty in developing countries *(incompatible framing).* On the contrary,

others frame agriculture as part of the solution and argue that not including agriculture in mitigation efforts will undermine attempts to reduce emissions in other sectors *(compatible framing)*.

5.3.2. From frame fragmentation to frame integration

While there are different approaches and frameworks to study fragmentation of global governance, mostly measuring it in terms of institutions, norms, actors (Biermann et al. 2009), and to a lesser extent, discourses (Pattberg et al. 2014), I argue that incompatible frames are also **indicators of fragmentation**. Different frames can have consequences on fragmentation. As highlighted by Dewulf et al. (2011: 68), the 'fragmentation of frames', understood as how 'the different actors thus frame the problem domain and the issues in diverging ways, resulting in a frame fragmentation', can prevent finding common ground and thereby affect decision-making. On the positive side, it can also stimulate the emergence of new solutions (provided there is will) (Dewulf et al. 2011). When frames are incompatible, different instruments and approaches can be developed to address these frames. Forcing the integration of conflictive or irreconcilable frames, particularly at the global scale, can become resource intensive and result in having agreements that are so general and broad that they fail to address the problem they were initially supposed to resolve. The development of specific approaches and instruments may increase fragmentation in already fragmented governance systems, such as the global forest, agriculture and climate change governance systems, though they can become integrated by the frames they share.

Efforts to connect different frames and integrate them among domains can result in a greater coherence and efficiency of and among governance systems, as multiple efforts have the potential to contribute to sustainability, including by the accumulation of so called 'small wins' (Weick 1984), paving the road to the desired transformative changes (Termeer, Dewulf, and Biesbroek 2017, Termeer and Dewulf 2018). Also, these small wins tend to be less threatening (Termeer and Dewulf 2018), which is of great value in the climate change governance system, where actors are hesitant to commit to certain agreements under the traditional and dominant intergovernmental framework, due to the fear of legally binding targets, but are more open to undertake efforts outside these highly legalized systems, where at the same time, non-state actors can take part. In her polycentric approach to climate change, Ostrom (2012: 355) also recognizes the collective benefits (and costs) of 'multiple public and private organizations' acting 'at multiple scales', and how collective action can stimulate global efforts. Connecting (compatible) frames among governance systems through specific instruments and approaches can stimulate and support global efforts, such as those under UNFCCC. Current examples include the development of carbon footprint standards or carbon reduction plans for forest and agri-food products, which share a mitigation frame among domains (see for instance, FSC (2016) or International Trade Centre (2012)).

5.3.3. Strategic framing

Framing can be consciously used to enhance (or prevent) policy integration. Candel et al. (2014: 48) point out that '...framing activities presuppose the presence of actors who are behaving strategically'. There is an important component of agency in the process of framing (Somorin et al. 2012); actors may choose to stress some aspects of an issue and leave others out to lead the solution in a certain direction, or to include or exclude certain actors (sometimes willingly, sometimes implicitly). As a consequence, the different framings will lead to people understanding and assessing the issues in differing ways (Borah 2011), based also on their tacit frames (Schön and Rein 1994). As recognized by Bedford and Snow (2000), frames can be created to attain certain goals, i.e., framing can be used in an strategic manner. Findings in the empirical chapters suggest that interplay management efforts to achieve integration can benefit from conscious framing or transforming existing frames into new or different ones, for example, in the following ways:

- by expanding the frame to include issues that are relevant to others so it is supported by more stakeholders (also known by Snow et al. (1986) as 'frame extension'), for instance, the inclusion of forest degradation in REDD+, which was of interest to the African countries when initial discussions on reducing emissions from deforestation were taking place;
- by reframing an issue so it looks like a different or new frame (known as 'frame transformation' by Snow et al. (1986)), for instance, when avoided deforestation was reframed as reducing emissions caused by deforestation;
- by connecting different but compatible frames among governance systems (connecting frames is known by Snow et al. (1986) as 'frame bridging', or frame connection by Dewulf et al. (2011)), for example, by connecting the dominant frame of climate change mitigation with efforts to enhance agricultural productivity in a resource efficient and sustainable way;
- by highlighting certain elements of a common problem, and leaving aside others (known by Dewulf et al. (2011) as selection and focusing framing processes), for example, by focusing on the technical solutions to reduce emissions from agriculture, and not addressing broader institutional or transformational issues (e.g. consumption, subsidies, land rights).
- by being inclusive, for instance, ensuring that different domains and sectors are represented. See GACSA as an example where it has not only tried to include members from the agriculture and climate governance systems, but different sectors within them as well (NGOs, businesses, research, etc.)

Findings also suggest that strategic framing can also be used to maintain the status quo and prevent integration (for instance, by keeping frames incompatible) or transforming frames to become incompatible.

5.3.4. Framing as a skill in enhancing integration

The conscious process of framing and reframing is undertaken by actors, including policy entrepreneurs. Policy entrepreneurs are recognized as important actors in enhancing policy change (Mintrom and Norman 2009, Kingdon 2014, Brouwer and Biermann 2011), as we saw in Chapter 3 with the inclusion of forest and agriculture in the agenda of UNFCCC, or in Chapter 4 as GACSA's core partners managed to establish the partnership that would bring together agriculture and climate change considerations. Scholars have identified certain important skills or characteristics in policy entrepreneurs, such as their ability to define problems, their social awareness, their team building skills, and their inclination to lead by example (Mintrom and Norman 2009); or the qualities of being persistent, committed, skilled negotiators, and open to investing resources (Kingdon 2014). Though their ability to frame issues strategically has remained mostly implicit, it is listed sometimes as an activity or strategy that policy entrepreneurs employ (see for instance, Meijerink and Huitema 2010, Faling, Biesbroek, and Karlsson-Vinkhuyzen 2018). A review by Faling et al. (2019: 404) clusters policy entrepreneurs' strategies into five groups: 'issue promotion, issue framing, coalition-building, manipulating institutions and leading by example'. I would like to make more explicit that strategic framing is a necessary skill for enhancing integration in the climate, agriculture and forest nexus, and is exercised throughout the strategies listed by Faling et al. (2019). For instance, strategic framing in the case of coalition-building, as observed in Chapter 3, took place when REDD+ policy entrepreneurs accepted the inclusion of matters related to forest conservation or enhancing forests carbon stocks to gain the support in particular of India and China, respectively; or in Chapter 4, as the process leading to GACSA's creation required some strategic framing in its early stages, such as using a trustworthy definition of CSA and creating a sense of equality.

Strategic framing is not limited to how issues are framed as problems and solutions in attractive ways, but also in how actors manage to connect, expand and align different frames, reframe, and develop targeted instruments and approaches to enhance integration among the different domains. As actors become aware of the different frames that lead to policy controversies, they may reflect upon them, be more aware of the different perspectives and possible responses and reframe the issues in compatible ways, in what Schön and Rein (1994) call 'frame reflection'. We saw this in the case of tropical deforestation that was reframed in a climate, specifically UNFCCC, compatible way as 'reducing emissions from deforestation'. Reflexivity, understood as the 'capability to deal with multiple frames' and perspectives (Termeer et al. 2015: 680), is also considered by some scholars as a needed capability to address effectively complex problems (also called 'wicked problems'[59]).

59 Wicked problems are understood as: 'that class of social system problems which are ill-formulated, where the information is confusing, where there are many clients and decision makers with conflicting values, and where the ramifications in the whole system are thoroughly confusing' (West Churchman 1967: 141B). More on 'wicked problems' can be read in (Head 2008, Rittel and Webber 1973, Weber and Khademian 2008)

5.3.5. Synthesis model

Following from my conclusions and general synthesis, I wish to introduce a model that incorporates to some extent the main insights and how framing can be used to enhance or prevent integration:

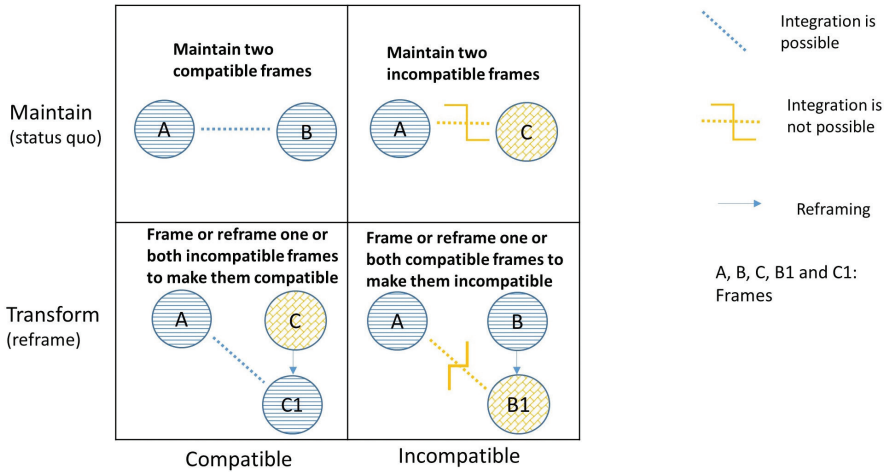

Figure 5.3 Framing and Integration Model

As a model, it is a simplistic way to represent reality. It acknowledges that there are frames (sometimes unconscious frames), some of which are compatible, or at least non-conflictive and some of which are conflictive or incompatible. (Strategic) framing plays a role in different ways: it can be used to maintain the status quo, i.e., by keeping frames compatible (making integration possible), or keeping frames incompatible (preventing or making integration not possible); or it can be used to create new frames or to reframe existing ones so they become compatible and integration is enabled, or the opposite, to transform frames so they become incompatible, making integration not possible. Compatible frames open up a window of opportunity for actors to enhance integration as the compatible frames do not prevent and enable some extent of integration. It does not mean that integration is guaranteed, but at least, efforts have greater chances of success (precondition).

5.4. Theoretical and conceptual reflections

This dissertation has contributed to furthering our knowledge and understanding of global governance fragmentation and integration literature, as part of Integrative Governance (IG) research, by integrating frame theory into IG debates and addressing how framing influences fragmentation and integration. This was done for the nexus of forest, agriculture and climate change. In this section I will share some theoretical reflections on how framing can enrich IG research and further insights, as well as areas for further research.

The consideration of frames and framing has added a new analytical layer to different frameworks within IG, related to interplay management, agenda setting and private steering mechanisms. As indicated in Chapter 1, in my view frames are one factor to be considered among others, in so-called 'thin' approaches to discourse theory (Arts et al. (2010)). Chapter 2, for instance, has considered the role of dominant frames, next to degree of legalization – i.e. the number and type of norms (Karlsson-Vinkhuyzen and Kok 2011) - to understand the extent of integration. It has also addressed how these two elements interact in fragmented institutional contexts, where in the case of climate change, UNFCCC provides an important framework while agriculture and forest lack one. The presence of dominant frames can be tacit, as actors are usually not aware of their existence. They can also evolve over time, for instance, from forests as 'lazy' lands to lungs of the Earth and then sinks. In studying fragmentation and integration, it is equally important to recognize that framing can also be used in a strategic and conscious manner, as shown in the other empirical chapters.

Different studies have recognized how diverse and conflicting frames can generate conflict and tension, and represent an obstacle for finding mutual understandings (Dewulf et al. 2011, Daviter 2007, Dewulf 2013, Candel et al. 2014, Mooney and Hunt 2009, Snow et al. 1986, Lewicki, Gray, and Elliott 2003). This dissertation has connected frames and framing to broader debates at the global level; specifically, it has recognized that frame fragmentation represents another indicator in the fragmentation of global governance, together with institutions, norms, and actors, as well as discourses. At the same time, frames can become an enabler for integration in highly fragmented governance systems, such as forest, agriculture and climate change, to the extent that compatible frames can be connected among domains.

In this dissertation I have combined two dimensions/perspectives in relation to frames. The first one, more common in public policy research, characterizes frames as tacit and unconscious, shaping policy positions and sometimes generating conflict (Schön and Rein 1994), these can also be considered 'cognitive' frames (see for instance, Dewulf et al. 2009). The second one, traditionally used in social movements research, focuses on the strategic and intentional framing process to achieve certain goals (Benford and Snow 2000, Hulst and Yanow 2014). Both perspectives complement each other, as cognitive frames lead actors to frame (new) issues in certain ways, but at the same time, framing processes shape and reinforce existing or new frames, in an iterative process. Both perspectives also consider actors as key in the analysis, be it as holders of the different frames or exercising their agency in framing and reframing the world around them, sometimes consciously, sometimes unconsciously. Yanow and van Hulst (2009: 21) recognize that 'Actors are engaged in framing all of the time, albeit a large part of the time without awareness of it'.

Efforts to achieve integration among domains have used different means to do so, and setting an item on the agenda is one of them. Different frameworks have been developed to understand why some issues raise on the agendas and generate policy change, and some do not: for instance, punctuated equilibrium theory (Jones and Baumgarter 2012), multiple streams approach (MSA) (Kingdon 2014), or the issue attention cycle (Downs 1972). In this dissertation I have used Kingdon's MSA to demonstrate how adding a framing layer can enrich the analysis and explain to some extent successful integration (or lack thereof) among the three studied domains. Regardless of the approach used, framing considerations can play an important role in the different frameworks that try to explain why some issues receive more attention than others and generate policy change, as the departing point is how actors frame the problems. In the words of Stone (1993: 106), problem definition is the 'the strategic representation of situations': by using, for example, some elements of scientific data or state-of-the-art reports, and leaving others aside, stakeholders underpin the way they want others to see the problem and justify action in accordance with their interests. Problem framing will also direct action and solutions in a certain direction (Dery 2000, Juhola, Keskitalo, and Westerhoff 2011). As stated by Dewulf (2013: 323) a 'specific frame or policy image of an issue that makes it to the top of the agenda, will direct the kind of policy change'.

In the Integrative Governance literature, there are different views and perspectives regarding the fragmentation of global governance. Some scholars and policy makers favour an integrated architecture with one all-encompassing agreement, while others see the benefits of diversity and multiple efforts (Isailovic, Widerberg, and Pattberg 2013, Pattberg et al. 2014, Biermann et al. 2009). For instance, for some the absence of a legally binding treaty on forests that addresses different dimensions of forest is perceived as problematic 'in the absence of a forest convention, the consensus on forest-related issues is fragmentary and incomplete' (Humphreys 2006a: 212); others view a 'portfolio approach' as the best solution, recognizing that in the context of fragmented global governance systems, such as the one on forests, efforts should be allocated to the identification or development of '...mechanisms that nurture, support, connect and coordinate global efforts' rather than to the development of an overarching treaty (Hoogeveen and Verkooijen 2010: 151). With this background, to the question of where this dissertation is positioned, I would like to state that like Pattberg et al. (2014: 9), I see fragmentation as 'a structural quality of governance architecture rather than a normative proposition'. I recognize that in the shift 'from government to governance' (Rosenau and Czempiel 1992) and the greater involvement and participation of non-state actors, representing multiple interests and frames, fragmentation is inevitable. It is thus not a question of fragmentation being good or bad, but of fragmentation being a fact, and in the case of the forest, agriculture and climate change governance systems, how to deal with it, as well as the ways to enhance coherence within and among them. This is where this dissertation makes its contribution in stating that integration is facilitated when frames

are compatible, and on the contrary, in the context of conflicting frames, integration will have serious difficulties being achieved, exhausting valuable resources and consuming time, and leading to broad and vague agreements. Multiple-scale efforts united by shared and compatible frames among domains have greater chances of contributing to global efforts. It is still important, however, to understand why fragmentation happens, who benefits from it and what elements and forces are at play -- for instance, what the role of power is. For some scholars, fragmentation benefits and is promoted by powerful actors because 'it enables them to preserve their dominance in an era in which hierarchy is increasingly viewed as illegitimate, and to opportunistically break the rules without seriously jeopardizing the system they have created' (Benvenisti and Downs 2007: 595).

To sum up, in this dissertation I have provided more insights into the research of the fragmentation of global governance, i.e. Integrative Governance, by delivering four conceptual contributions: 1) framing in institutional interaction/ interplay management; 2) framing in agenda setting; 3) framing in partnerships; and lastly, 4) developing an integration-framing model.

Future research directions

Framing is related to power. This dissertation has addressed to some extent the role played by dominant actors and power, the dominant frames they support, and implications for fragmentation and integration in global governance. Powerful actors have tacit frames, and consciously or unconsciously, they want others to share and legitimate their frames and they have the resources to do so – e.g. through (financial) incentives, persuasion, enabling or forbidding market access, etc. Behind a (global) dominant frame there is usually a powerful actor(s). Scholars have argued that the chosen frame is key for attracting as many powerful actors as possible; this is done by using broad definitions, but being innovative enough to be perceived as proposing new approaches and solutions, which results in new sources of finance flowing in (Newell and Taylor 2018).

Actors can frame the interlinkages between climate change and forest or agriculture in different ways, but those with the financial means are in a position to further their views and solutions (Karlsson et al. 2018, Newell and Taylor 2018). This dissertation has shown that the frames used to define certain problems lead the solutions in a direction that can implicitly favour the status quo and prevalence of certain dominant frames in broader societal problems. This can happen by refraining from addressing issues not in the interest of powerful, however, these issues are indispensable for achieving the necessary transformations towards more sustainable paths, such as structural inequality (Karlsson et al. 2018), or changing consumption patterns, just to mention a few. Research on frames/

framing and IG could benefit from frameworks that integrate both power and framing when studying fragmentation and integration.

In studying the relationships among forest, agriculture and climate change, important links to trade were identified, e.g., how commercial agriculture is the main driver of deforestation (Kissinger, Herold, and De Sy 2012); how diets are changing around the world towards increased consumption of animal products, not only having an effect on animal welfare but also deforestation and climate change (HLPE 2016, 2012, IPBES 2019b); or how some fear that stricter climate regulations might lead to trade barriers, including border tax adjustments (Chapter 3, this dissertation). Further research can address how trade influences the relationships among the three governance systems. Different reports have pointed out that GHG emissions from agriculture are rising (Wilkes, Tennigkeit, and Solymosi 2013, FAO 2014, Smith et al. 2007). Most of agriculture GHG emissions come from non-Annex 1 (developing) countries (FAO 2014, Wilkes, Tennigkeit, and Solymosi 2013). On the contrary, developed countries have reduced the area dedicated to agriculture, as well as their agriculture-related GHG emissions (Gibbs et al. 2010). Further research can address whether fewer emissions in the North are a result of not only more efficiency and sustainable practices, but at the same time, of an increase in the trade flows from agricultural products from South to North; this would reveal whether emissions from agriculture are being transferred from one place to the other, and also how Northern consumption impacts deforestation in the South[60] (see for instance Cuypers et al. (2013); IPBES 2019). Other questions include the extent to which trade and market considerations have the upper hand over command and control rules emanating from forest, agriculture and climate change governance systems; how prices in agricultural and forest products have an effect on higher or lower deforestation rates; or if and how trade and the market can be used to incentivize transformational changes.

Further research that aims to study the role of framing in partnership formation and development can also consider an analysis of the governance functions[61] that the partnership aims to fulfil, since these can have implications in the type of work and solutions offered by the partnership, as well as the exclusion of other approaches and solutions that fall outside those functions, all of which falls under the rubric of framing. Different governance functions could also have an effect on the different expectations and interests of both its members and those outside.

Finally, further research can deepen the analysis of the role of framing in the integration of forest and agriculture. While this nexus and differences in integration were explained to some extent in Chapter 2, as a result of incompatible frames in both domains, this research

60 Also known as telecoupling 'socioeconomic and environmental interactions over distances' (Liu et al. 2015)

61 Governance functions can include agenda setting, policy development, implementation, meta-governance, improving participation and ensuring good governance (Visseren-Hamakers and Glasbergen 2007, Visseren-Hamakers 2009).

further focused on the intriguing differences in the integration of forest and agriculture with climate change (where forest and climate change have had a higher degree of integration than agriculture and climate change). Significant efforts and multiple frames can be found at the forest and agriculture nexus. Examples include the Forest and Farm Facility (FAO 2019b), and efforts to strengthen the link of forest, trees and food security (IUFRO 2015, Van Noordwijk 2019). Further research can address which frames are able to bring together two domains that have a history of conflicting policies and competition.

5.5. Reflections on Methods

To address the role of framing in the integration of the forest, agriculture and climate change governance systems, I operationalized three different concepts under IG research and developed three specific conceptual frameworks, adding a framing layer. Data was obtained through primary and secondary sources, including an international workshop. The research also benefited from my previous experience in addressing the three domains, from the international policy making perspective, implementation at the national level, and research (e.g. on Payment for Environmental Services, agricultural subsidies, and agri-environment payments (from the Common Agricultural Policy of the European Union)).

Being a former negotiator for sustainable development issues – including climate change, forest and REDD+ -- facilitated my understanding of the complex international negotiation dynamics and the different interest and issues at stake. However, it also represents a challenge to remain objective and to use a researcher's lens. To address this and also to increase the validity of my findings, I ensured a triangulation of sources and methods to obtain data. In the selection of the 48 interviewees, I identified a mix of actors – government and non-government representatives[62] -- who had been active since REDD+'s early stages, and also other actors who had joined in subsequent years. The same applied to the agriculture field, insofar as I included both actors who had been involved since its inclusion in SBSTA's agenda and those who joined thereafter. I interviewed two high level officials, one former minister of environment and a minister of agriculture. I also organized a workshop that brought together more than 30 experts from 14 different governments and organizations, active on forest and/or agriculture, who enriched my perspective with their different insights. The workshop was organized together with the Environmental Change Institute of Oxford University, and the Ministry of Economic Affairs of The Netherlands, in collaboration with CGIAR/CCAFS Research Program on Climate Change, Agriculture and Food Security, and CGIAR/FTA Research Program on Forests, Trees, and Agroforestry.

The selected interviewees represented different stakeholder groups. The representativeness of the private sector might seem low, as only two actors from the private sector were

62 As a previous negotiator I was mostly exposed to government representatives, not civil society nor research.

interviewed, however, one of them was a representative of the World Business Council on Sustainable Development (WBCSD), an organization that represents more than 200 companies. At the same time, information and reports from other private companies were analysed to understand their stance on the researched topics (e.g. on CSA).

As for the selection of a case study to analyse efforts outside the inter-governmental mechanisms in the nexus of agriculture and climate change, which has proven to be problematic at the intergovernmental level, the selection of GACSA was considered appropriate since core partners were frustrated with the slow pace of negotiations at UNFCCC, so they decided to invest efforts outside UNFCCC – without neglecting UNFCCC itself. I was able to engage via participatory observation (DeWalt and DeWalt 2011) for a 4- to 5-year period from the moment of the creation of the partnership. I participated in different meetings and teleconferences before GACSA was launched, including a Preparatory Meeting for a Global Alliance for Climate-Smart Agriculture (July 2014), and after its launch, different events organized by the Facilitation Unit and Strategic Committee at the margins of UNFCCC/ Conference of the Parties and other events, two Annual Fora, strategic committee meetings (in person or virtually), among others.

5.6. Policy recommendations

After reflecting on the main findings and conclusions of this dissertation, the following policy recommendations are presented:

- **Integration at the agriculture and climate change nexus framed as a food security issue**

  For some years, several stakeholders have tried to integrate agriculture and climate change considerations in a more comprehensive way. Under UNFCCC, agriculture GHG emissions are indeed reported under national GHG inventories (addressing mitigation) and the sector is part of the Nairobi Adaptation Plan (addressing adaptation), but a comprehensive and coherent approach, with both mitigation and adaptation considerations, has been missing. As mentioned in Chapter 2, in an effort to improve the relationships at the nexus of agriculture and climate change, actors have tried to introduce the nexus agriculture and climate change at different fora, but the topic has actually faced a 'forum kicking' dynamic, where it is pushed from one policy venue to the other (for instance, in FAO some governments consider that discussing anything that deals with climate change is a UNFCCC prerogative; under UNFCCC other governments consider that agriculture is under discussion at WTO and should remain there). The 'Koronivia joint work on agriculture' agreed on December 2017 (UNFCCC 2018: Decision 4/CP.23), under SBSTA (UNFCCC), raises hopes that some positive developments will

take place. To prevent more 'forum kicking' and generate more success with respect to addressing the integration at the agriculture and climate change nexus, it could be framed as a food security issue by those actors promoting an integrated treatment for agriculture, as dominant frames in the agriculture arena seem to 'focus on food quantity as its principal response to food security' (Maye and Kirwan 2013: 4). Food security as a concept 'actively used to create consensus' (Candel et al. 2014: 57) has the potential to bridge the agriculture and climate change governance systems.

- **Integration outside traditional intergovernmental mechanisms, where other less dominant frames are present and pressure for binding commitments is off the table**

  While legislation is one way of enhancing integration, in particular in settings with a high degree of legalization (Karlsson-Vinkhuyzen and Kok 2011), there are other means that are also effective, outside contested intergovernmental regimes, where the pressure of binding commitments is out of the picture and where different and less dominant frames converge. It also opens the opportunity for non-State actors to engage and invest their time and resources, with a greater sense of ownership and commitment. The challenges at the forest, agriculture and climate change nexus are too complex for one actor to solve them all. It is the collective effort that will advance the desired transformation towards sustainability. Acting at multiple scales simultaneously can take us down the right path.

- **Land-use sector readiness fund: to strengthen mechanisms, instruments and financial resources that aim to integrate domains**

  Financial incentives are key for motivating actors to change their business as usual practices and try new ways of doing things, which can translate into more efficiency, sustainability and income. As with REDD+, the flow of resources for readiness activities and the different funds and programmes that were created demonstrated the political will of developed countries to support developing countries in their efforts to reduce deforestation, and at the same time, it allowed developing countries to lower their guard vis-à-vis such a sensitive issue as forest[63].

  In a combination of lessons learned from REDD+ readiness processes, and other proposals for agricultural climate change readiness (see for instance, Zurek et al. 2014), a new fund (or a new window within existing funds) can be created for 'land-use sector readiness'. A fund that facilitates both the land-use sector contribution to achieving the 1.5/2 degrees Celsius climate change target set out in the Paris Agreement, and the achievement of the NDCs. However, this fund should not be limited to mitigation

63 As demonstrated since Rio 1992 with the negotiation of the Forest Principles (in lieu of a forest convention), forest is a sensitive issue for many countries.

actions; for instance, it should see the forest's contribution to preventing climate change not only in mitigation terms, but also in terms of its influence on the adaptation of other sectors, including agriculture; or consider the multiple objectives of agriculture and its links with other domains. In other words, it should address in an integrated way forest, agriculture and climate change considerations, as well as goals such as adaptation, food security and environmental sustainability, together with mitigation. This fund should not be restricted to governments; it can support multiple-scale efforts by different actors and it can be open to public and private donors. Engaging regional development banks and organizations is important for these efforts. Such a fund can also show some political will to those engaged in the Koronovia process.

- **Sustain efforts throughout time, choose the best partners, and ensure compatible frames**

  Introducing an item on the global agenda or building up a partnership are important steps, but they just mark the beginning of a new phase. Further efforts will be needed for the development of solutions (e.g. incentives, tailored approaches, methodologies, legal framework) and for sustaining political support, which requires persistence and a substantial investment of time and resources. Efforts to enhance integration are too intense for one single policy entrepreneur to undertake, so choosing the best companions to share the burden when promoting an issue is key for success. Here are some elements to consider:
  - Identify partners with whom an entrepreneur could share compatible frames (it does not need to be the same frame, but at least compatible).
  - Be aware of the reputation of the potential partner in the selected policy community. There are important and powerful actors that are key to draw into the joint efforts, but they do not necessarily need to lead the initiative or be a policy entrepreneur, as their reputation in the policy community may not be the best.
  - 'Runners' (policy entrepreneurs) may change over time, like in a relay, as it is an intense and wearing process, though efforts need to be sustained. Faling et al. 2018) recognize that in setting up collaborations, certain policy entrepreneurs and qualities might be needed in its early stages, while others might be desired for sustaining and leading the collaboration in the long run.

- **Identify interlinkages with other domains**

  While this dissertation has addressed the nexus of forest, agriculture and climate change, there are other domains that constantly interact and impact this nexus, such as biodiversity, development, trade, energy and water. These relationships should be taken into account to cultivate a full understanding of how they are connected and influence

each other. IPCC concludes, for instance, that 'Explicit consideration of interactions among water, food, energy and biological carbon sequestration plays an important role in supporting effective decisions for climate resilient pathways' (IPCC 2014b: 112), whereas the UN 2030 Sustainable Development Agenda considers the 17 Sustainable Development Goals (SDGs) – where our three domains are contemplated, in particular, SDGs 2, 13 and 15 – as 'integrated and indivisible and balance the three dimensions of sustainable development: the economic, social and environmental' (United Nations 2015: preamble). Delimiting the domains is also key for analysing what we consider part of it and what is not; for instance, is forestry part of agriculture sector, as in the FAO definition? Or rather part of the forest sector?

- **Disaggregate actors, as the presence of the same actor in different domains does not guarantee coherence**

  Though relatively incipient, there is potential for integration among the three domains. Different approaches are being developed for this purpose, including financial mechanisms stimulating integration. The presence of some actors in two or more of the governance systems seems like a positive stimulus to guarantee a certain coherence at the international level and facilitate integration when needed. This is not always the case, however, as one actor can be represented by different ministries at different fora. For instance, in the case of a government, the Ministry of Foreign Affairs can be the focal point at the UNFCCC, the Ministry of Agriculture at FAO, and the Ministry of Environment at the United Nations Forum on Forest (UNFF). These ministries might have sometimes different and conflicting interests and frames, and within them, individuals with divergent interests and agendas also interact. As indicated by Fox (1993: 29) 'Many state organizations are composed of a range of actors with different interests who struggle to control the agency, to determine its goals, and to decide how to pursue them'. The same can occur with international organizations, where different departments are in charge of diverse but connected topics; see for instance FAO, where there are three different departments for forestry, fisheries and aquaculture, and agriculture (FAO 2019a), though, FAO's definition of agriculture already includes crops, forestry, livestock, fisheries and aquaculture (FAO 2016b: 4). In this regard, as a result of national or organizational coherency challenges, conflicting or incoherent policies can be (unwillingly) replicated at the international level. When studying and mapping actors to assess potential for integration, it is important to acknowledge that actors are not 'monolithic', and that we need to disaggregate them to see inside and understand the internal dynamics and different frames.

- **GACSA: fine-tune membership list to ensure that those listed are related to agriculture-climate nexus**

  The variety of the membership in GACSA is an asset, but also a challenge, considering all the different interests, motivations and frames the members bring with them; the challenge is to keep them engaged despite the differences in expectations and worldviews. Membership increase is seen as an important factor in GACSA, insofar as it measures how GACSA is able to expand its impact, be known, and scale up CSA and its benefits. However, GACSA would benefit from checking in detail the membership list and determining first, the existence and current activity of each enlisted member, and second, if there is a real connection with the topics GACSA addresses. Doing this will prevent GACSA from being associated with organizations of dubious reputation in the future, or being accused of having a 'ghost' membership (just on paper), which would affect GACSA's credibility and reputation. For instance, there is a Canadian company listed as a member of GACSA that is bankrupt and permanently closed (see National Post 2017, CBC News 2018), or an organization focused on religious education or a real estate company specialized in urban and commercial estate. Their links to CSA are a bit questionable – not impossible –, so inquiring into the matter would ensure that their missions are related to GACSA's own goals. In this regard, GACSA's Strategic Committee might want to take a look at the membership entry criteria and ask the Facilitation Unit to assess each membership request carefully (e.g. background check), based on stricter criteria than a letter of interest. It is also advisable that GACSA gets to know its members and promote personalized contact, when possible, to keep them engaged and also to understand their motivations and interests. At the same time, engaging the forest community and consumer organizations can enrich GACSA's work. In accordance with the latest IPBES Global Assessment (IPBES 2019a: 43): '...consumer pressure for goods produced in an environmentally friendly and socially just manner is a strong mechanism for transforming food systems.'

- **GACSA: Transformational changes require more specificity and multiple efforts aligned by shared frames and macro-level discussions**

  Within GACSA, the concept of Climate Smart Agriculture (CSA) has brought together actors and sectors with different priorities and interests that have traditionally worked independently from each other, though the implications of their actions are interconnected. CSA is considered by some as a 'consensus frame' (Faling 2019: 159). It bridges the agriculture and climate change domains and addresses some of their interconnected problems. Gamson (1995) was the first to coin the term 'consensus frame', in the context of social movements. Consensus frames are concepts that on the surface enjoy shared values and objectives (such as the concept of sustainability), and in

essence, are difficult to oppose (such as food security[64]); however, 'behind this apparent consensus, dissensus, in the form of different frames and corresponding claims, may lie hidden' (Candel et al. 2014: 48). In principle, who can oppose an approach such as that of CSA, which, while increasing productivity – highly valued by some –, is reducing GHG emissions and enhancing resilience? Who can opt for (explicitly) supporting the opposite: Climate 'Stupid' Agriculture? However, CSA's recognition of the three pillars, and the different claims about and interpretations of each of them make the concept highly complex and controversial, which has engendered resistance since the beginning from holders of conflicting frames.

GACSA has invested a substantial amount of time and resources in trying to find common ground and approach CSOs that clearly possess not only different but incompatible frames. Perhaps it is advisable to recognize that it is not possible to include all those different views, approaches, or actors, and that in contributing to enhance the agriculture-climate nexus, different actors can develop different approaches and instruments to focus on specific frames and groups, such as smallholding farmers, consumers, large-scale producers, etc. Effective action and collaboration that contribute to transformational changes might require more specificity and multiple efforts aligned and coordinated via their shared frames/ sub-frames. It is valuable to make an effort to be inclusive, but some frames are simply incompatible and irreconcilable.

Transformational changes can also benefit from more macro-level discussions, beyond technical solutions and smart practices, addressing structural challenges and root causes. While being an international partnership, GACSA's work is mostly focused at the national and local levels. Several technical notes have been developed to enhance and improve agricultural practices. The Enabling Environment Action Group has presented several cases at the national level as regards ways that various countries have applied CSA through policy, investments, or technical solutions. Scaling up CSA might benefit from discussions that also address how the international context impacts the national level and the reforms needed. GACSA might not be in a position to solve this, but it can profit from being an international partnership bringing together actors from across the world; creating a space for discussion can be seen as the act of making the soil fertile to support this issue taking root on the international agenda.

The policy recommendations above and the insights shared throughout this dissertation show that framing can play a key role in the integration of current global governance in the nexus of forests, agriculture and climate change. As highlighted by the quote from 'Alice through the Looking-Glass' at the start of this chapter, we are constantly confronted with

64 For food security as a consensus frame, see for instance Mooney and Hunt (2009), Candel et al. (2014), Brunori et al. (2013)

words and concepts that mean different things to different people, though some might be more dominant than others and overshadow – consciously or unconsciously – other 'weaker' frames. Indeed, language is not neutral: it helps us to interpret and give sense to what is happening around us and build our reality (Hajer and Versteeg 2005, Brink and Metze 2006, Hajer 1993).

In closing, the use of framing to enhance integration can go in different directions. For instance, the frames that support higher consumption can be aligned throughout the domains, yet this is not necessarily a positive step towards sustainability. So I would like to conclude this dissertation with questions, rather than answers, and these include: What frames are missing that will allow the necessary transformative changes to happen? What frames will take us towards a sustainability path? How can a sustainability frame become dominant? Answering these questions, or at least, attempting to answer them, will be the first step towards identifying and reflecting on the existing frames that have led us – consciously or unconsciously – onto our current unsustainable path. Words have the power to burn bridges or build bonds. Given the balance in which the future of the planet currently hangs, this study has sought to contribute to the latter, and it is hoped that these questions can encourage further inquiry - and action - towards such ends.

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Annexes

Detailed list of interviewees

	Research institutes
1	Program Director, CGIAR/CCAFS. 8 February, 2016
2	Representative CGIAR/CCAFS. 5 September, 2016
3	Researcher, CIRAD. 1 October, 2016
4	Researcher CIAT Kenya. 19 August, 2016
5	Senior Partnerships Expert, GFAR. 11 December, 2015
6	Professor, Wageningen University and Research, 20 August, 2016
7	Researcher, Environmental Change Institute, University of Oxford. 9 November, 2015
8	Researcher, UC Davis California. 23 August, 2016
9	Researcher, Red Triangle Institute. 29 July, 2016
	Business
10	Representative. World Business Council for Sustainable Development. 15 December 2015
11	Representative Yara. 29 August 2018
	Government
12	Danish government negotiator and Co-chair Agriculture negotiations, SBSTA, UNFCCC. 8 December, 2014
13	Anonymous. Government representative, Latin America. 7 December, 2015
14	Anonymous. Government representative, North America. 4 June, 2015
15	Anonymous. Government representative, Oceania. 11 November, 2015
16	Government representative, Asia. 4 July, 2016
17	Minister of Agriculture, Latin America. 3 December, 2015
18	Former Minister of Environment and Energy, Latin America. 21 January, 2016
19	Anonymous. Government representative, EU. 25 January, 2016
20	Anonymous. Government representative, Latin America and former Presidency of Independent Association of Latin American and Caribbean (ILAC). 22 January, 2016
21	Former Executive Secretary Central American Commission for Environment and Development, 1990-1998. Government delegate to the UNFCCC. 28 January, 2016
22	Government representative. Latin America. 5 July, 2018
23	Chief Advisor- Policy, Wildlife Trust of India, and former Lead Negotiator- India for REDD+ and LULUCF. 5 September, 2016
24	Government representative, Latin America. 24 August 2016

	NGOs
25	Representative, Conservation International. 4 June 2015
26	Anonymous. NGO. 4 June, 2015
27	Representative, Action contre la Faim. 4 December 2015
28	Representative, CARE International. 19 August, 2016
29	Representative, Union of Concerned Scientists. 10 November 2015
30	Representative, World Vision International. 11 August, 2016
31	Representative WWF. 11 February, 2016
32	Anonymous. NGO Africa. 20 January, 2016
33	Advisor, NGO. 6 September, 2017
	IGOs
34	Anonymous. Representative UNEP. 26 November 2015
35	Anonymous. Representative FAO. 15 February, 2016
36	Representative FAO. 20 September 2018
37	Representative FAO. 17 August 2018
38	Climate Change Advisor. International Coffee Organization. 22 January, 2016
39	Executive Director, UNFCCC. 25 February, 2016
40	Executive Director, Coalition for Rainforest Nations. 20 October, 2016
41	Director Environment and Climate Change, IFAD. 10 October, 2018
	Financial Organizations
42	Representative World Bank. 1 November 2016
43	Main Executive Environment and Climate Change, Latin American Development Bank CAF. 18 November, 2015
44	Agriculture and Agro Industry Department, African Development Bank. 5 November, 2015
	Farmer Organizations
45	Chairman Asian Farmers Association (AFA). 12 November 2015
46	Representative, La Via Campesina. 5 September 2018
47	Representative Solutions from the Land. North America. 12 July, 2018
	Others
48	Consultant. Coffee and Climate Partnership. 1 August, 2016

Summary

Lazy lands or carbon sinks? Frames and integration in the nexus of forest, agriculture and climate change

The interactions among the forest, agriculture and climate change policy domains are quite complex. On the one hand, forests provide important livelihoods and ecosystem services. These include protection of biodiversity and water sources, climate regulation, absorption of CO2, the reduction of the risks and impacts of extreme weather events, and important recreational and spiritual values in different parts of the world, just to mention a few. On the other hand, agriculture provides food, animal feed, bioenergy, and employment, and is a source of income for more than 500 million smallholder farmers globally. However, commercial agriculture is considered the main driver of deforestation. This tension has been enhanced in the past by conflicting policies (including agricultural subsidies) that promoted increasing agricultural productivity and considered standing forest as "lazy lands" (land with no economic or social value). This led to clearcutting forest to make land "productive". While this framing has changed, and different instruments have been developed to protect and conserve forests, the expansion of agriculture into forested areas continues. Moreover, both forests and agriculture are highly vulnerable and affected by climate change. Paradoxically at the same time, deforestation, forest degradation and agriculture contribute to about one quarter of global greenhouse gas (GHG) emissions. So there is functional interplay among the three domains, as they are all connected in biogeophysical or socio-economic. As such, greater coherence can be promoted through improved coordination and integration among the domains.

The global governance systems of forests, agriculture and climate change are characterized by their fragmented nature, that is, an increasing number of institutions governing each domain, a multitude of actors from different spheres of society, and a wide array of norms and discourses. Specifically, this dissertation addresses this fragmentation from a framing perspective and is positioned within global environmental governance research. It aims to further our knowledge on the role of framing in the integration of global governance in the nexus of forests, agriculture and climate change. In order to do so, three research questions are analysed:

> ***RQ1: What efforts have been taken to enhance integration among the forest, agriculture and climate change governance systems and how does framing contribute to the degree of integration?***

RQ2: How did forests receive an increasingly prominent place on the global climate change agenda, while agriculture is still lagging behind, and what role has framing played in this degree of integration?

RQ3: How and to what extent has framing played a role in the design and evolution of the Global Alliance on Climate Smart Agriculture (GACSA)?

Different conceptual frameworks are developed in each chapter to answer the research questions. These are encompassed within the Integrative Governance literature and are combined with frame theory elements. The methodologies used involve semi-structured interviews, an international workshop with experts active in one or more of the studied domains, and in-depth literature reviews and document analyses.

Chapter 2 analyses and explains the extent of integration among pairs of domains (forest-agriculture; forest-climate change; agriculture-climate change) and the nexus of the three. It also analyses efforts undertaken by actors to enhance integration. It builds on interplay management and framing theory, utilizing two elements to explain the level of integration: degree of legalization (type and quantity of norms and rules) and dominant frames in each domain. The three governance systems are characterized by medium (in the case of forests) to medium-high (agriculture) and high (climate change) degrees of legalization. The dominant frame for forests has evolved over time, from being considered lazy or unproductive lands, to lungs of the Earth, and carbon sinks. In the case of agriculture, the dominant frame is characterized by its productivist nature, justified in the need to feed 9 billion people by 2050. Finally, climate change is more focused in reducing GHG emissions (mitigation) than adaptation; it is also facing important changes in the way the common but differentiated responsibilities principle is perceived, where the North-South divide is evolving into a more self-defined approach, based on national capacities and contributions (instead of commitments). The chapter draws the conclusion that integration efforts have taken different forms and are more evident in the soft law realm. It also recognizes that integration has differed for pairs of domains. While forest and climate change have a higher degree of integration, agriculture and forest, agriculture and climate change (specifically, the mitigation side), as well as the nexus of the three, present lower levels of integration. It also highlights that the (in)compatibility of frames is an important factor in the extent of integration. When frames are compatible or at least not conflicting, integration can be enhanced; the opposite is also true -- conflicting frames prevent integration.

Chapter 3 addresses the integration of forests and agriculture into the climate change agenda. It compares efforts to include tropical deforestation and forest degradation (REDD+) into the UNFCCC, with similar (and less successful) efforts for agriculture. It draws upon agenda setting and frame theory to build its framework. It considers three streams

in agenda setting: problem, policy and political, and how policy entrepreneurs contribute to link the streams when a policy window opens up, leading to the inclusion of an issue in the decision agenda. The role of committed policy entrepreneurs in linking the problem, policy, and political streams in the case of REDD+ has led to the creation of a legal and methodological framework in the course of the studied period (2005-2015). Political will and incentives, including readiness funds, have facilitated the creation of a trusted environment, where developing countries have been encouraged to undertake mitigation actions. Framing deforestation as a GHG emission problem, as a 'low hanging fruit' in terms of the solution, and expanding the frame to include other issues and gain political support have influenced forest and climate change integration. In the case of agriculture, while the problem recognizes the challenge of increasing productivity for growing populations, while keeping emissions low, the policy and political streams have faced important challenges. These include the lack of incentives and a convincing proposal (solution) that it is framed in a way that the multiple objectives of agriculture are addressed; the complexity of dealing with millions of farmers (with different sizes, resources, and practices); and the fear that addressing agriculture in a comprehensive way will lead to binding targets and trade barriers in a sector that is economically and socially important for many developing countries. Committed policy entrepreneurs that are trusted, speak in a unified voice and sustain efforts over time have been missing in the case of agriculture. Efforts outside the traditional intergovernmental mechanisms seem to be a way for moving the issue forward. Despite these difficulties, the agreement to work on the Koronivia Joint Work on Agriculture under UNFCCC could create new opportunities for enhancing the integration of the agriculture and climate nexus. Framing has played an important role in enabling or preventing integration.

Chapter 4 addresses the integration of agriculture and climate change outside the intergovernmental mechanisms, namely in an international partnership, the Global Alliance on Climate Smart Agriculture (GACSA), that gathers more than 280 stakeholders from different spheres of society, including business, NGOs, governments, and farmer associations. The chapter builds on partnership literature and frame theory to develop its conceptual framework. It aims to understand how and to what extent framing has played a role in the development of GACSA. The chapter concludes that from the beginning through more advanced stages of partnership formation, framing played different roles, from more strategic framing in early stages to more unconscious and tacit framing in later phases. The concept of Climate Smart Agriculture (CSA), while apparently technical in nature, is rich in terms of different interpretations and political significance. The lack of a definition of what is and is not "*climate smart"* is considered positive by some, as it represents an opportunity for including different perspectives, interpretations and uses, and consequently, bringing more actors together. This view is at times countered by a negative perception of certain stakeholders, such as CSOs, who have expressed clear opposition to the CSA concept and GACSA. To them the concept is a blank check for also including non-sustainable practices,

and safeguards are missing. The chapter also highlights that problem definition and solutions around GACSA and CSA seem to be focused on frames that favour productivity and technology. It also concludes that incompatible frames are an indicator of the fragmentation of global governance and that different approaches and instruments can be developed to address and integrate compatible frames among domains, as the sum of efforts will contribute to broader global goals.

The final **chapter 5** addresses the main conclusions and discussion of this dissertation. It builds on the empirical chapters to answer the research questions and reflects upon the theory and methods. It also provides ideas for further research and shares some policy recommendations. The chapter concludes that compatible frames are a precondition for integration. Compatible frames have the potential to enable integration or at least, not hinder it. Efforts to integrate incompatible frames among domains can result in broad and meaningless agreements, with a significant amount of time and resources invested. Even though the forest, agriculture and climate change governance systems are highly fragmented and encompass multiple frames, actors may attempt to bridge and connect compatible frames among domains. The chapter also highlights that strategic framing can be used in different ways to enhance integration (e.g. by expanding frames or reframing). Framing is then considered a skill and a necessary quality for actors engaging in integration efforts. The chapter also presents a model for framing and integration that provides some insights into how framing can be used to enhance or prevent integration. It finalizes with a set of policy recommendations, including the development of a land-use readiness fund and the need to promote approaches outside the intergovernmental frameworks, where different frames are present and the fear of binding commitments does not play a role.

The dissertation concludes that the fragmentation of global governance is a fact, and incompatible frames are an important factor influencing this fragmentation. Also, while actors may connect compatible frames among domains, these frames will not necessarily support sustainable paths. This dissertation argues that we need to identify and support frames that enhance the desired transformative changes towards sustainability.

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Starting this PhD was not an easy decision, as I had to choose between an interesting and well-paid job and the uncertainty and challenges of a PhD. But I love adventure and new challenges, so I decided to start this PhD journey, without knowing where it was going to lead me and how I was going to get there. So many questions and options! Now that I have concluded my research, I recognize that pursuing a PhD was a good decision, not only for how it gave me the opportunity to see things from a more critical and academic perspective, complementing my professional development, but also for the space, time and growth it allowed at the personal level for the fulfilment of other dreams. There are many people to whom I am thankful and I would like to dedicate this space to recognize their invaluable support and inspiration.

As a PhD researcher you are in the driver's seat of your research, on a long journey that is difficult to undertake if you lack good travel companions to guide you, to inspire you, to provide constructive comments, and to help keep an eye on the road. I would like to start by thanking my promotors, Ingrid and Bas, for joining me in this adventure: for trusting me and giving me the right amount of guidance – not too little to make me feel lost, and not too much to inhibit my ideas and interests. Once we gained each other's trust, this journey became even more interesting and I was very fortunate to have you two guiding me through it.

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matter where you start, when you follow your heart and pursue your passion, all paths will take you to where you need to be. The right people and connections will come across your path, and challenges will provide you with learning opportunities that will take you further to the next steps of your journey.

About the author

Cinthia was born in San Jose, Costa Rica. She obtained her bachelor and licentiate degree in business administration with a specialization in auditing from the University of Costa Rica, San Jose. She gained interest in international affairs by joining AIESEC (International Association of Students in Economic Science, by its acronym in French) parallel to her studies. AIESEC is the largest student organization worldwide and was founded after World War II, in an effort to bring people from different cultures together, and promote respect and understanding for each other. She became Vice-President of AIESEC and later on, was elected President for the Costa Rican chapter. During her last year at the University, she started working for KPMG Peat Marwick, undertaking accounting and tax advisory tasks. She received a scholarship from the DAAD (German Academic Exchange Service) to study for an MBA in International Marketing in Reutlingen University, Germany. After returning from her studies, her interest in international affairs increased, leading her to apply for the Costa Rican Foreign Service as a career diplomat. She worked as Minister Counsellor and Consul General at the Embassy of Costa Rica in Washington DC for 18 months before being transferred to the Mission of Costa Rica to the United Nations, in New York. She represented Costa Rica in the Second Committee of the General Assembly, where sustainable development issues are negotiated. This included climate change, forest, food and nutrition security, poverty eradication, financing for development, and macroeconomic policy questions. Parallel to her job, she also obtained a Certificate of Advanced Studies in Environmental Diplomacy from Geneva University and the United Nations Environment Programme (UNEP, currently UN Environment). After working for the Ministry of Foreign Affairs, she joined UNEP's Regional Office for Latin America and the Caribbean, where she was in charge of mainstreaming environmental sustainability and climate change considerations into United Nations work at the country level. She was also in charge of a portfolio of projects in the region under the auspices of the Millennium Development Goals Achievement Fund, climate and environment window. After finalizing the projects, she decided to take a sabbatical year and undertake a Master of Arts in Development Studies with a specialization in environment and sustainable development, at the International Institute of Social Studies in The Hague, Erasmus University Rotterdam. This turned out to be a life-changing decision, insofar as it led her to pursue a PhD at Wageningen University and Research to address the nexus of forest, agriculture and climate change, this time, from a different angle: as a researcher.

On a personal level, Cinthia lives in Leiden, The Netherlands, with her partner and 3-year-old daughter. She enjoys camping, hiking and narrative writing, especially anecdotes about meeting new countries, cultures and people. After her PhD, she plans to continue working at the interface of environment, climate change, development and trade.

Completed training and supervision plan

Cinthia Lucia Soto Golcher
Wageningen School of Social Sciences (WASS)
Completed Training and Supervision Plan

Name of the learning activity	Department/Institute	Year	ECTS*
A) Project related competences			
Writing PhD proposal	WUR	2014	6
"Forestry and Agriculture in Climate Change Governance: Non-UNFCCC venues for enhancing action"	3rd Global Science Conference on Climate-Smart Agriculture, CIRAD, Montpellier, France	2015	1
"Governing the Agriculture-Climate-Food security nexus through partnerships: The case of the Global Alliance on Climate Smart Agriculture"	SDG Conference Zero Hunger: Partnership for impact, Wageningen University and Research	2018	1
Summer School- Managing Sustainable Forest Landscapes	Helsinki University	2015	6
Organized an international expert workshop on REDD+ lessons learned and land-use climate readiness	FNP/WUR	2016	6
B) General research related competences			
Information Literacy including EndNote Introduction	Wageningen Graduate Schools	2014	0,6
Scientific Writing	Wageningen in'to Languages	2014	1,8
Research methodology 'From topic to proposal'	WASS	2014	4
Interpretative Policy Analysis	NIG	2015	0.8
WASS Introduction Course	WASS	2014	1
Organizing and presenting in FNP Seminars	FNP	2015-2017	0.75
Establishment and co-facilitation of CSA@ WUR network and WUR' Focal point at GACSA (Global Alliance on Climate Smart Agriculture)	WUR	2015-2018	6
'Lessons learned from COP 21'	CSA network	2015	1
'Integration of current global governance in the nexus of forest, agriculture and climate change'	REDD+ and CSA PhD discussion group	2016	1

'Seeing the forest, missing the field: Forests and agriculture in global climate change policy'	Wageningen Centre for Sustainability Governance	2017	1
C) Career related competences/personal development			
Competence Assessment	Wageningen Graduate Schools	2015	0,3
Co-organizer CSA Summer School: "CSA: from fundamentals to application"	Wageningen Graduate Schools	2016	3
Brain Training	Wageningen Graduate Schools	2015	0.3
Support teaching in course: FNP 31306 (Communities, conservation and development)	FNP	2015	1.2
Support teaching in course: FNP 23303 (Planning: Theories, tools and practices-Value chains for sustainable landscapes)	FNP	2016	0.40
Supervision MSc thesis	FNP	2015-2016	1
Guest lecturer in FNP24306 & ENP-36306	FNP and ENP	2014-2019	1.25
Total			**45.4**

*One credit according to ECTS is on average equivalent to 28 hours of study load

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