Beyond the CBD

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2017

IVM Institute for Environmental Studies

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Exploring the institutional landscape of governing for biodiversity

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Report R-17/06

November 2017

This report is released by: Prof. Philipp Pattberg
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VU VRIJE UNIVERSITEIT AMSTERDAM

This report was commissioned by: Netherlands Environmental Assessment Agency

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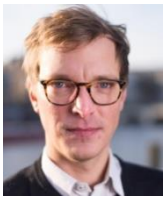

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The Institute for Environmental Studies (IVM) at the Vrije Universiteit Amsterdam, contributes to sustainable development and cares for the environment through scientific research and teaching. A unique feature of the institute is our capacity to cut through the complexity of natural-societal systems through novel interdisciplinary approaches.

Being the oldest environmental research institute in The Netherlands (est. 1971), IVM is currently one of the world's leading institutes in sustainability science. With 130 employees (staff, PhDs and Postdocs), IVM has been rated with the highest scores on scientific excellence, and each year we receive over 120 MSc students and we host over 50 PhD students in our teaching programmes.

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Acknowledgements
We want to extend out thanks to Marcel Kok, Kathrine Ludwig and their colleagues from the Netherlands Environmental Assessment Agency (PBL) for their expert-assistance, to Lisa Sanderink for her inputs and to Thomas Duurland for his research contributions.

Glossary

CONNECT project

The CONNECT project (Coping with Fragmentation: Assessing and Reforming the current Architecture of Global Environmental Governance) is a project funded by the Netherlands Organisation for Scientific Research (NWO). CONNECT (1) takes stock of the existing level of fragmentation across a number of issue-areas in global environmental politics; (2) explains the causes of fragmentation of global governance architectures based on a carefully designed set of variables; (3) analyses the implications of fragmentation across different scales of governance (i.e. international, regional and domestic levels); and finally, (4) suggests policy responses to increased fragmentation.

Governance

Governance refers to steering processes, systems and actors involved in addressing collective problems and guiding society towards socially desirable collective outcomes. Traditionally, the government is seen as provider of governance. However, today as well as in this report, individuals. the private sector, civil society and financial institutions etc., are also considered as contributors to governance.

Governance Architecture

An overarching system of public and private institutions that are valid or active in a particular issue area. It includes the array of governing institutions, regimes and other forms of principles, norms, regulations and procedures that govern the issue at hand.

Governance Triangle

The governance triangle is a heuristic framework developed by Abbott and Snidal, to structure and analyse governance of different issue areas (Abbott and Snidal 2009a; 2009b; Abbott 2012). Within the triangle, institutions are placed based on their governing members (public, firm and CSO). Furthermore, the governance triangle is divided into seven zones, which represent the potential combinations of actor types (public, private and hybrid). Finally, the triangle highlights the governance institutions' role (standards & commitments, operational activities, information & networking and/or financing).

Governing Members

Governing members refer to the actors involved in a governance institution holding a formal position to influence the rules, norms, operations or performance of the institution.

Institutions

Institutions are structures of rights, rules, norms, agreements and decision-making procedures that induce social practice or social order. Institutions assign roles to participants in that social practice or order and guide interactions among occupants of these roles.

Issue Area

Issue areas refer to clusters of interests and perceptions towards a specific issue, which is constructed based on social and political processes. These clusters mobilise support for particular values and guide the approach to the issue at hand.

Role (Database category)

Role refers to the governance function of an institution. It is based on the primary activity, or two primary activities, by which the institution pursues its governance goal. Roles include 'standards & commitments', 'operational activities', 'information & networking' and 'financing'.

Transnational

Transnational refers to operating across different levels, which could imply across country borders, among different organisations with different constituencies (public, private and/or subnational). In the case of this paper transnational refers primarily to institutions that govern or engage members beyond the state level and include actors from two or more countries.

Type (Database category)

Type refers to a categorization of governance institutions, which can be public, private or hybrid. Determining the type of an institution is based on the constituent members, which can be public actors (e.g. state governments, international organisations, cities and regions), private actors (e.g. firms, banks or business associations), or CSOs (e.g. NOGs and research institutes).

List of abbreviations

CBD	Convention for Biological Diversity
CDP	Carbon Disclosure Project
COP	Conference of the Parties
CSO	Civil Society Organisation
EC	European Commission
EU	European Union
EU ETS	European Union's Emission Trading Scheme
FAO	Food and Agriculture Organisation of the United Nations
FSC	Forest Stewardship Council
IO	International organisation
M&E	Monitoring and Evaluation
MRV	Monitoring, Reporting and Verification
NAZCA	Non-State Actor Zone for Climate Change
NGO	Non-governmental Organisation
REDD+	Reducing emissions from deforestation and forest degradation
REEEP	Renewable Energy and Energy Efficiency Partnership
RSPO	Roundtable on Sustainable Palm Oil
RSB	Roundtable on Sustainable Biomaterials
SDG	Sustainable Development Goals
UN	United Nations
UNEP	United Nations Environment Program
UNFCCC	United Nations Framework Convention on Climate Change
WWF	World Wildlife Fund

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Summary

Global biodiversity governance today comprises more institutions than the Convention on Biological Diversity (CBD) and other international biodiversity related conventions. A wide range of public and private actors organise themselves in various constellations around different issue areas, through which they also govern biodiversity. Increasingly, institutions established to govern issue areas such as agriculture, climate change, energy, fishery and forestry, influence biodiversity directly and indirectly. This report explores the expanding landscape of international and transnational institutions governing biodiversity.

This report maps and visualises the institutional landscape of governing for biodiversity as well as provides a detailed replicable methodology suitable for exploring and analysing any given governance landscape. Starting with a sample of 385 institutions governing climate change, agriculture, fisheries and forests, we identified a sub-set of 108 institutions. The selection was carried out following a conservative key-word analysis only considering institutions who clearly state a purpose to govern biodiversity. It is therefore possible that the universe of institutions in the landscape is larger than concluded in this report. The selected institutions have been individually scrutinised, and this report presents an exploratory analysis of the types of institutions in the institutional landscape of governing for biodiversity and their functions.

The report comprises: 1) a visualisation ordering the collection of biodiversity-relevant institutions by types of actors and by the functions they employ to reach their biodiversity governance objectives; 2) a range of descriptive statistics and graphs aimed at exploring and mapping political agency by showing who is involved, when and where they operate from; 3) an analysis of institutions monitoring, reporting and verification (MRV) frameworks, exploring potential checks and balances, transparency and the degree of institutionalisation; 4) eight case studies, providing an in depth depiction of how different types of institutions operate, the stakeholders they involve and their achievements relevant to biodiversity governance.

The results suggest the following:

1. Biodiversity governance has changed from being predominantly carried out by public actors towards increasing multi-stakeholder participation. As of December, 2016, at least 9641 unique public and private actors are actively engaging with biodiversity governance.
2. About half of the institutions are purely public. However, private actors including civil society organisations, companies and investors, comprise roughly two thirds of the active members involved with in the entire biodiversity governance landscape.
3. Besides hybrid institutions (those engaging all types of actors: Public, private and CSO), joint governance is most frequently public-CSO and CSO-firm.
4. Certain functional types of governance (what we refer to as roles) stand out as the preferred way for institutions to achieve their biodiversity governance objectives. *Standards and commitments* is most commonly applied followed by *information and networking*.
5. Biodiversity governing institutions most frequently frame their activities under the scope of *conservation* (81%) followed by a significant proportion promoting *sustainable use* (35%), whereas only few accentuate *access and benefit sharing* (5%).

6. Considering MRV, 45 (82%) of the 55 transnational institutions in the institutional landscape implement at least monitoring, 42 (76%) also publish reports and 21 (47%) also verify their actions through third party verification procedures.
7. Third part verification is used mainly in the institutions where it is essential to the mode of operation. 17 (85%) of the 20 institutions enforcing standards and certification have full MRV frameworks in place.

Transnational institutions have a lower degree of enforcement power than their international counterparts. Therefore, we assess MRV as a mean of checks and balances, important to ensure that desired progress and outcomes are achieved. Our MRV analysis focuses on eight transnational institutions, as these generally have a lower degree of enforcement power and mechanisms at hand compared to their international counterparts. The results reveal that only 7 of the 55 transnational institutions operate without an MRV framework, whereas 42 conducts both monitoring and reporting, and 21 apply third-party verification. In sum, our results indicate a surprisingly high level of checks and balances as well as a high degree of institutionalisation.

Case studies of eight transnational institutions highlight that biodiversity governance comes in many shapes and sizes, which in turn is reflected in the variety in types of output and outcomes. All cases show signs of output level performance relevant to governing biodiversity; four cases show signs of biodiversity relevant outcomes; and all cases lack proven direct biodiversity impacts. The lack of direct biodiversity impacts may reflect an inherent difficulty in evaluating impacts rather than overall performance failure. The lack of counterfactuals against which institutions' actions can be measured, along with the fact that most impacts will only become apparent over a longer time-scale, makes a meaningful assessment of direct impacts difficult at best.

In conclusion, the institutional landscape of governing for biodiversity is characterised by a multitude of actors and institutions occupied with governing biodiversity through different issue areas. This report maps, visualizes and analyse aspects of the institutional landscape on governing for biodiversity. It shows that biodiversity governance has moved from being governed primarily by public institutions towards a much more diverse set of private and public actors having gained significant agency. The results and methodology presented here provide a robust foundation, relevant to practitioners, policymakers and scholars interested in further assessing the institutions and the actions taken in the name of governing biodiversity. Considering the extent to which biodiversity governance is carried out through institutions that are not primarily focused on biodiversity, it begs the question whether this is similarly the case for issues such as climate change, energy or agriculture. An important next step is to analyse the institutional landscape for potential synergies and conflicts between the institutions.

1 Introduction

International and transnational biodiversity governance in the 21st century has expanded beyond the activities carried out under the Convention for Biological Diversity (CBD). Governance mechanisms across a broad range of issue areas such as climate change and forestry have become important for biodiversity. Therefore, rather than treating biodiversity as an isolated issue area, this report presents a holistic understanding of the various institutions addressing biodiversity. The report scrutinizes how institutions with primary focus on five issue areas of importance for biodiversity (climate change, forestry, agriculture, fisheries and energy) create an increasingly complex institutional landscape of governing for biodiversity.

Transnational institutions in particular play an increasingly important role in global governance of sustainable development and other environmental issue areas including biodiversity (Abbott and Snidal 2010; Bulkelaey *et al*. 2014). These developments are embodied in the UN's Sustainable Development Goal (SDG) 17, encouraging enhancing "the global partnership for sustainable development, complemented by multi-stakeholder partnerships…" (UN 2015: SDG 17.17). Also the biodiversity regime recognizes the role of transnational action; the CBD's Aichi Biodiversity Targets suggest that "By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption" (CBD 2010: Annex I, Target 4). The expanding institutional landscape has been documented across several issue areas and in various databases (see e.g. Widerberg and Stripple 2016). For instance, on climate change, the UNFCCC's platform Non-State Actor Zone for Climate Action (NAZCA) currently lists 77 institutions linked to climate change, while the United Nation Partnerships for SDGs platform contains 2161 initiatives and action networks related to the 17 SDGs.

The expanding institutional landscape of governing biodiversity raises questions regarding performance including legitimacy, transparency, and effectiveness. It forces researchers to look beyond individual institutions (Bulkeley *et al*. 2014) and instead study the broader governance architecture and interactions between institutions. To this end, this report maps and explores the institutional landscape of governing for biodiversity[1]. The report maps and explores the collection of institutions[2] undertaking biodiversity governance using a generalizable methodology that can be applied for conducting holistic studies of environmental governance of any given issue area. The analysis is guided by six questions:

1. What institutions occupy the institutional landscape of governing for biodiversity internationally and transnationally?
2. What roles do institutions in the institutional landscape of governing for biodiversity take on?
3. What themes do institutions in the institutional landscape of governing for biodiversity focus on?

[1] In the institutional landscape of governing for biodiversity, the report includes institutions with a primary stated goal of governing a selection of issue areas of importance for biodiversity, including agriculture, climate change, energy, fisheries and forestry. Data was taken from the CONNECT project (see: http://fragmentation.eu/ for more information).

[2] The concepts institutions and initiatives are to some degree used interchangeably throughout the report. In the context of the database, institutions can be perceived as a broader definition that encompasses initiatives, projects, intergovernmental agreements and protocols.

4. To what extent do institutions in the sample implement procedures for monitoring, reporting and verification (MRV)?
5. What are the effects (outputs and outcomes) of institutions in the institutional landscape of governing for biodiversity?

Starting with a sample of 385 institutions governing climate change, energy, agriculture, fisheries and forests (what is referred to as 'governance for biodiversity', see Figure 1 below), the report identifies a sub-set of 108 institutions. The subsequent inquiry proceeds in four steps. It provides, first, a map of the institutional landscape which orders the collection of institutions by types of actors and by the functions they employ to reach their biodiversity governance objectives. Second, a range of descriptive statistics and graphs exploring and mapping political agency by showing who is involved in the different institutions, when the institutions were initiated and where they operate from. Third, an analysis of MRV procedures in 55 transnational institutions, which informs about potential checks and balances, transparency and the degree of institutionalisation within the landscape. Four, eight case studies exemplify the variety of different transnational institutions and to give an in-depth depiction of how these different types of institutions operate, what stakeholders they involve and whether they produce tangible outputs and outcomes relevant to biodiversity governance.

The results show an institutional landscape characterised by a wide variety of actors and institutions occupied with governing biodiversity through different issue areas. Furthermore, the report illustrates how biodiversity governance has moved from being governed primarily by public institutions towards a much more inclusive structure where private actors have gained significant agency. Finally, the results provide a robust foundation, relevant to practitioners, policymakers and scholars interested in further assessing the institutions and the actions taken in the name of governing biodiversity.

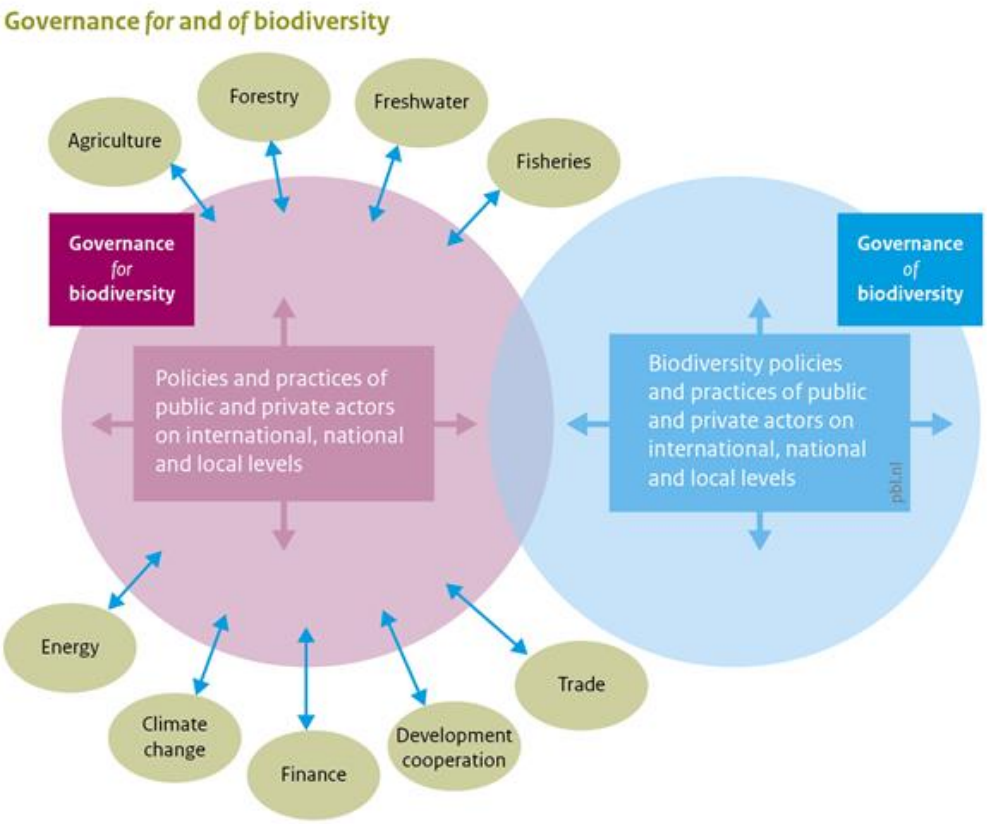

Figure 1 *Governance for biodiversity and its connection to governance of biodiversity (PBL 2017).*

2 Methods: Mapping the institutional landscape of governing for biodiversity

This section defines the methodology for mapping the institutional landscape of governing for biodiversity. The study initially considered 385 institutions primarily focusing on governing five different issue areas of importance for biodiversity: agriculture, climate change, energy, fisheries and forestry (see Leadley *et al*, 2014). The data is provided by the CONNECT-project[3], an IVM research project assessing governance fragmentation across the five issue areas mentioned above. The extended methodology behind the initial data collection can be found in Widerberg, Pattberg, and Kristensen (2016).

The criteria for including institutions are as follows: the report includes "(i) international and transnational institutions, which not only have the (ii) intentionality to steer policy and the behaviour of their members or a broader community, but also explicitly mention the (iii) common governance goal, accomplishable by (iv) significant governance functions" (Widerberg, Pattberg, and Kristensen 2016: pp 13).

Next, the database has been created through a selection process (see Figure 2) where:

1. Institutions were selected using semi-automated keywords analysis;
2. The excluded institutions were forwarded for expert review;
3. The institutions identified for potential inclusion despite lack of relevant keywords were examined in depth to determine whether or not to finally include them.

2.1 Criteria and selection

Institutions in the dataset explicitly intend to govern biodiversity. These were identified through a keywords analysis of institutions' self-formulated governance statements (see Figure 2), downloaded from the institutions' websites. The type of statements included are: "Mission/Vision", "About", "Strategy", "What we do", "Objectives", "Function", "Operation", "Background", "Work Areas", "Guiding Principles" and "Charters". Subsequently, a set of keywords relevant to biodiversity governance were identified through a literary analysis and expert consultation (see Annex A.1 for an overview of the chosen words). First, the Convention on Biological Diversity's (CBD) strategic plan for 2020 was analysed for keywords. These were then reviewed and supplemented by experts in the field as well as a review of available literature on biodiversity-governance (See e.g. Bladon *et al*. 2016; Jaco Barendse *et al*. 2016; Carvalho-Santos *et al*. 2016; Li *et al*. 2016). For words where several forms of the word exist, e.g. conservation, conserving, conserve, the roots of the words, e.g. "conserv", were included. In cases were different combinations exist, e.g. "manage sustainably", "sustainably manage" and "sustainable management", all were included.

[3] For more information see the project homepage: http://fragmentation.eu/

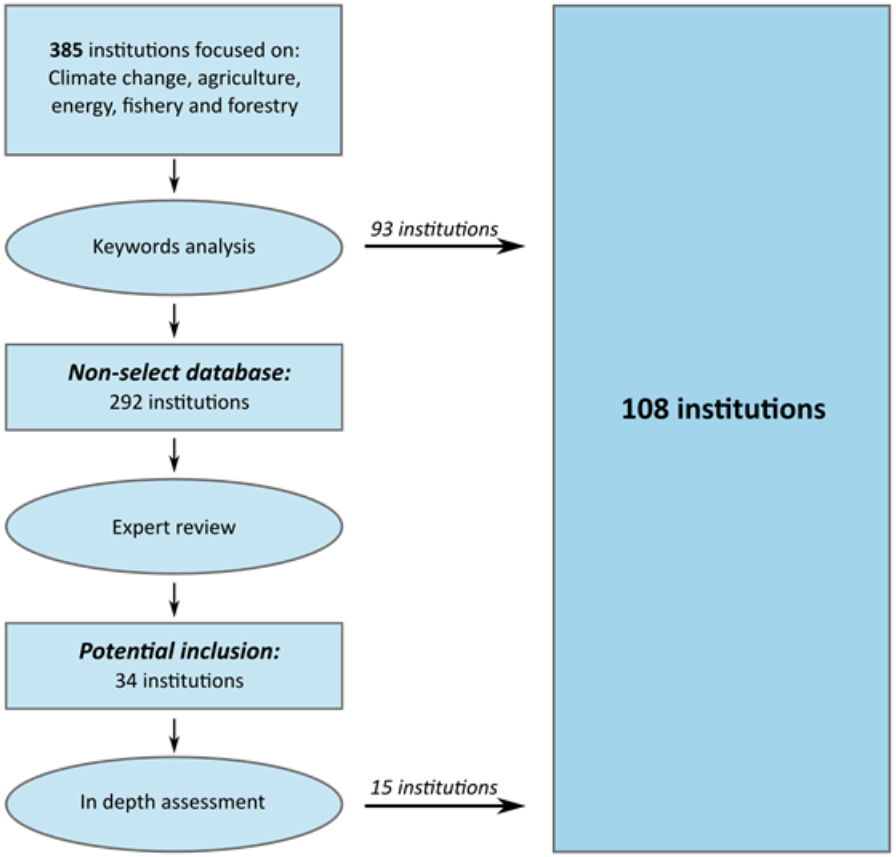

Figure 2 Selection process for creating database

To further narrow down the dataset to a manageable size, the following steps were taken (see also Figure 2):

1. **Synchronisation**: Statements and keywords were synchronised to ensure matching formats. All special characters were removed, all letters were changed to lower case, lists and bullet-points were dissolved and double-spacing removed.
2. **Categorization**: Keywords were divided into two categories, strong indicators and weak indicators. The former group included: “biodiversity”, “biological diversity”, “cbd”, “convention on biological diversity”, “ecosystem services” and “protected areas”. All remaining words (see Annex A.1) were added to the second group.
3. **Selection round 1**: The statements were scanned for keywords. If a statement included at least one of the strong indicators, the corresponding institution was added directly to the final database. If a statement mentioned at least one of the weak indicators it was reviewed manually before potentially adding the corresponding institution to the database. In this process 93 institutions were added (See Figure 2). If no keywords were mentioned, the corresponding institution would be added to a separate non-select database; 292 institutions were added to this.
4. **Selection round 2**: In round 2, the excluded institutions were forwarded to a group of biodiversity experts who manually reviewed and identified potential institutions for inclusion, returning 34 institutions of potential relevance.
5. **Selection round 3**: The 34 institutions from selection round 2, were checked in detail by the IVM research team and compared to the initial criteria for inclusion.

15 of these institutions were added to the database. The final database mapping the institutional landscape for governing biodiversity consists of 108 institutions.

2.2 Visualizing the governance architecture

Descriptive data were collected for all institutions in the dataset on: Year of inception, actor-types, primary focus, role, number of governing members (see Widerberg, Pattberg, and Kristensen 2016), as well as, a detailed overview of potential MRV frameworks.

For mapping the institutional architecture the report uses a 'governance triangle' (see Figure 3), an heuristic framework developed by Abbot and Snidal (Abbott and Snidal 2009a; 2009b; Abbott 2012). Institutions' positions in the triangle are determined by the types of governing members (public, private or civil society organisations) and other participants essential to institutional operation of rules and norms, i.e. their actors. The table below outlines the three actor-categories included. The categories are designed to include all potential actors in transnational governance. Where individuals make up the governing actors, the data include the entity that the actors represent.

Table 1 Actor categories divided into three types

Public	• Individual states • Collection of states • Cities • Regions • International organisations (IOs)
Firm	• Businesses • Investors • Industry associations
CSO	• Non-governmental organisations (NGOs) • Other CSOs • CSO networks and coalitions

The triangles are divided into seven zones (see Figure 3) representing the potential combinations of actor types. Institutions in zones 1-3 are dominated by a single type of actor (see above). Those in zones 4-6 involve two actor types, and those in the central 7th zone involve all three types of actors. Additionally, the triangle is divided into three 'tiers', the public tier where public actors are dominant, the private tier where firms and CSO are dominant and the hybrid tier where government bodies share governance with firms and/or CSO in public-private partnerships

The colour scheme assigned to institutions in the triangle depicts their role, or governance function[4]: Standards and commitments (red), operational activities (orange), information & networking (green) and financing (blue). These roles are not necessarily employed on an either/or basis, some institutions engage through several. Institutions under standards & commitments use functions such as rule-making and implementation, mandatory compliance, standards for measurement and disclosure of activities, certification schemes and voluntary and private standards and commitments. Operational institutions employ, for example, technology research and development,

[4] The role of an institution is based on its primary activity, or two primary activities related to the way they pursue their primary governance goal (i.e. the goal related to either agriculture, climate change, energy, fishery, forestry or a combination of one or more of these).

(pilot) project implementation, demonstration and deployment of activities, skills enhancement, and best practice dissemination. Financing institutions primarily finance operational activities. Finally, institutions facilitating information-sharing and networking (information & networking) provide technical consulting, training, and information services to build capacity, share knowledge, and support local government (Widerberg, Pattberg, and Kristensen 2016). In the governance decagons (see Figure 4), the institutions are ordered and visualised according to their role instead of actor compositions.

Four governance triangles and decagons, representing four different institutional clusters, are presented. The clusters are defined based on key approaches relevant to, and used in, governing biodiversity. A key feature in the CBD's 2010 strategic goals and the Aichi targets is the aim to govern biodiversity through different approaches including: 1) conservation of e.g. habitats, species and genetic diversity, 2) sustainable use of e.g. forest products allowing for co-occurrence of socio-economic and develop and ecosystem maintenance and 3) access and benefit sharing, ensuring that sustainable development and benefits from such are shared equitably amongst relevant stakeholders. A fourth cluster contains all the institutions in the biodiversity governance landscape.

The three clusters, conservation, sustainable use and access and benefit sharing, were created according to a keyword analysis. Keywords relevant to the three governance themes were selected from the CBD's strategic goals and Aichi targets (CBD 2010: Annexes I and IV) by a group of researchers and experts in the field of biodiversity (see Annex A.2). There are several overlaps between the clusters, as many of the institutions use several approaches to govern biodiversity.

2.3 Monitoring, Reporting and Verification (MRV)

For examining the degree of institutionalization of institutions in the dataset, the report assesses whether they have MRV procedures in place. In this examination, we focus on transnational institutions. Compared to their international counterparts, voluntary transnational institutions have a lower degree of enforcement power and mechanisms at their disposal. In addition, authors such as Pattberg and Widerberg (2016) argue that MRV increases the effectiveness of multi-stakeholder initiatives by enabling organisational learning as well as increases accountability and transparency, resulting in a higher level of institutional legitimacy (see also: Bäckstrand 2012; Gupta and Mason 2014).

The report distinguishes between the M, R and V and considers whether an institution has a framework in place to monitor and/or evaluate their outputs and outcomes and potential impacts (*M*), whether these findings are reported - ideally to the public (*R*), and whether the outputs, outcomes and/or impacts are verified (*V*). Finally, the report distinguishes between internal and third party verification.

To determine if an institution employs monitoring and/or reporting we consider whether it has a formal framework in place (or a clause in their charter requiring monitoring/reporting), as well as whether the institution publish progress reports, annual reports and/or project updates. In case of clear published information on activities an institution is assigned both M and R. If only a clause is in place, without signs of activity and any type of publications, an institution is assigned nothing, M or R depending on the specific wording. In order to qualify for verification in our coding, an institution is required to explicitly state that their standard, outputs and/or impacts are verified either by the institution itself or by a third party.

2.4 Case studies

The final part of the analysis consists of eight case studies conducted to provide an overview the diversity of institutions in the database. The case studies were chosen from a sub-selection of institutions that 1) are transnational and 2) include Dutch actors (public and private). Four institutions including the Dutch government as an actor and four institutions include Dutch private sector actors (e.g. Unilever, Shell, Heineken, Philips and Ahold). For an overview, see Table 2.

Table 2 The selection of eight case studies.

Institutions including the Dutch Government	Institutions including the Dutch private actors
1. Congo Basin Forest Partnership (CBFP) 2. Forest Carbon Partnership Facility (FCPC) 3. The Global Partnership on Forest Landscape Restoration (GPFLR) 4. Sustainable Food Systems Programme (SFSP)	1. Global G.A.P (GGAP) 2. The Roundtable on Sustainable Biomaterials (RSB) 3. Sustainable Agriculture Initiative Platform (SAI) 4. World Business Council on Sustainable Development (WBCSD)

3 Mapping the institutional landscape of governing for biodiversity

This section presents a mapping of the institutional landscape of governing for biodiversity. We provide an overview of the institutional landscape on governing for biodiversity using four governance triangles and decagons, as well as summary statistics. The graphical overview is made for four clusters of biodiversity governing institutions, whereas the summary statistics are given only for the cluster containing all the institutions.

3.1 Institutional overview: Governance triangle and decagon

The governance triangles (Figures 3 and 4) show the institutions in the biodiversity governance landscape sorted by the type of governance they engage in, i.e. public, private or a mix of the two. The heuristic is modified from Abbott and Snidal (2009a; 2009b; Abbott 2012) and combined with the international regime complex approach presented by Keohane and Victor (2011). Each of the four triangles visualises a cluster in the institutional landscape on governing for biodiversity: a) All institutions in the institutional landscape on governing for biodiversity (n=108), b) Conservation cluster (n=87), c) Sustainable Use cluster (n=38) and d) the Access and Benefit sharing cluster (n=5). Additionally, the decagons (Figures 5 and 6) provide an important contribution by reordering the visual according to roles (i.e. the main governance functions). Also, descriptive information on the institutions contained in Figures 3a and 4a is shown in Table 3 and Figure 4.

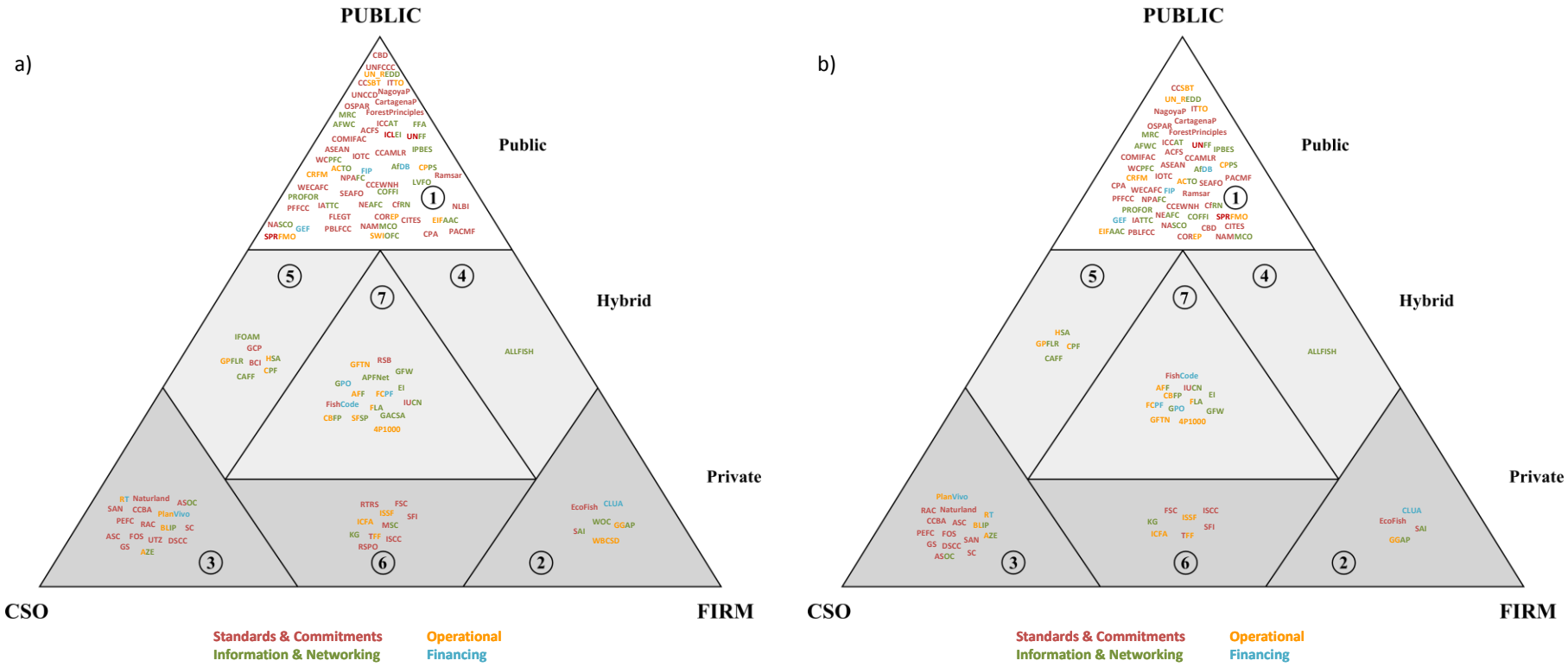

Figure 3 *Governance triangles visualising different clusters in the institutional landscape on governing for biodiversity: a) shows all institutions (n = 108), and b) the Conservation cluster (n = 87).*

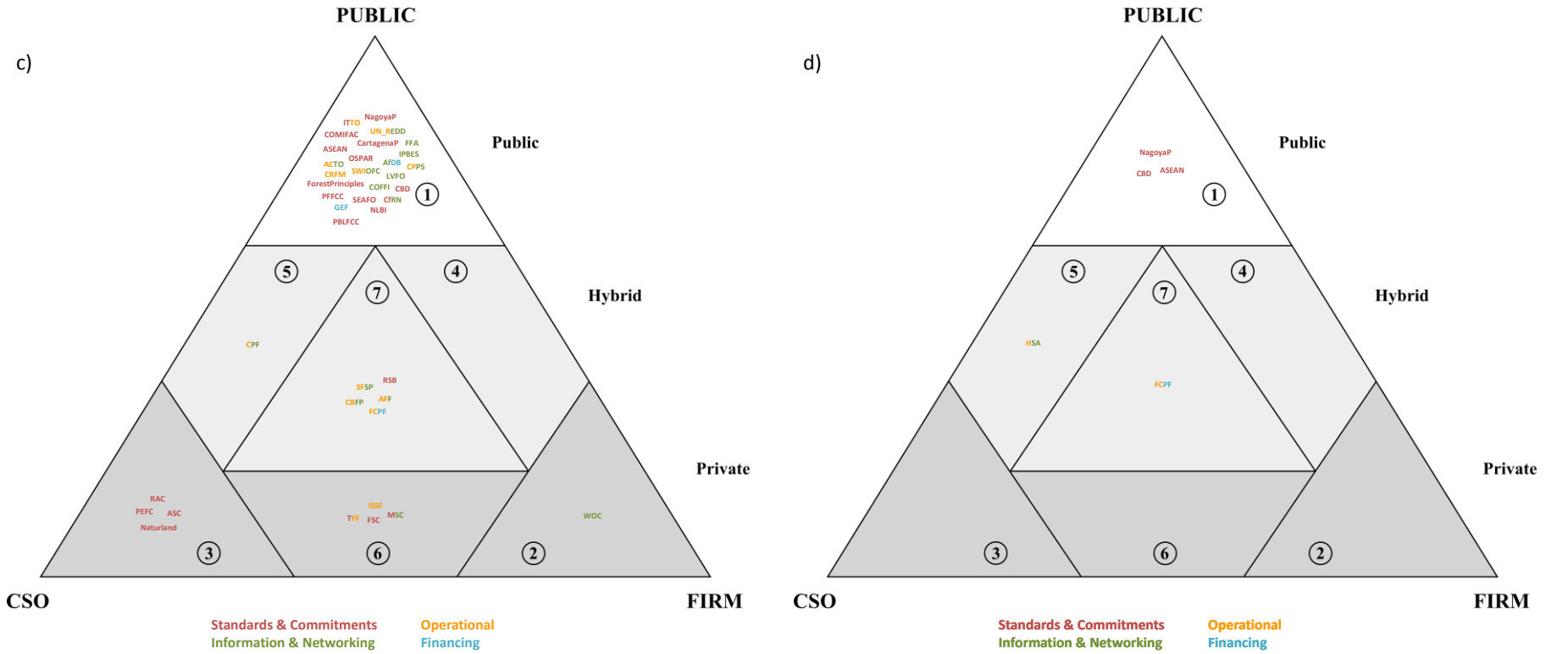

Figure 4 *Governance triangles visualising different clusters in the institutional landscape on governing for biodiversity: c) shows the Sustainable Use cluster (n=38) and d) the Access and Benefit sharing cluster (n=5).*

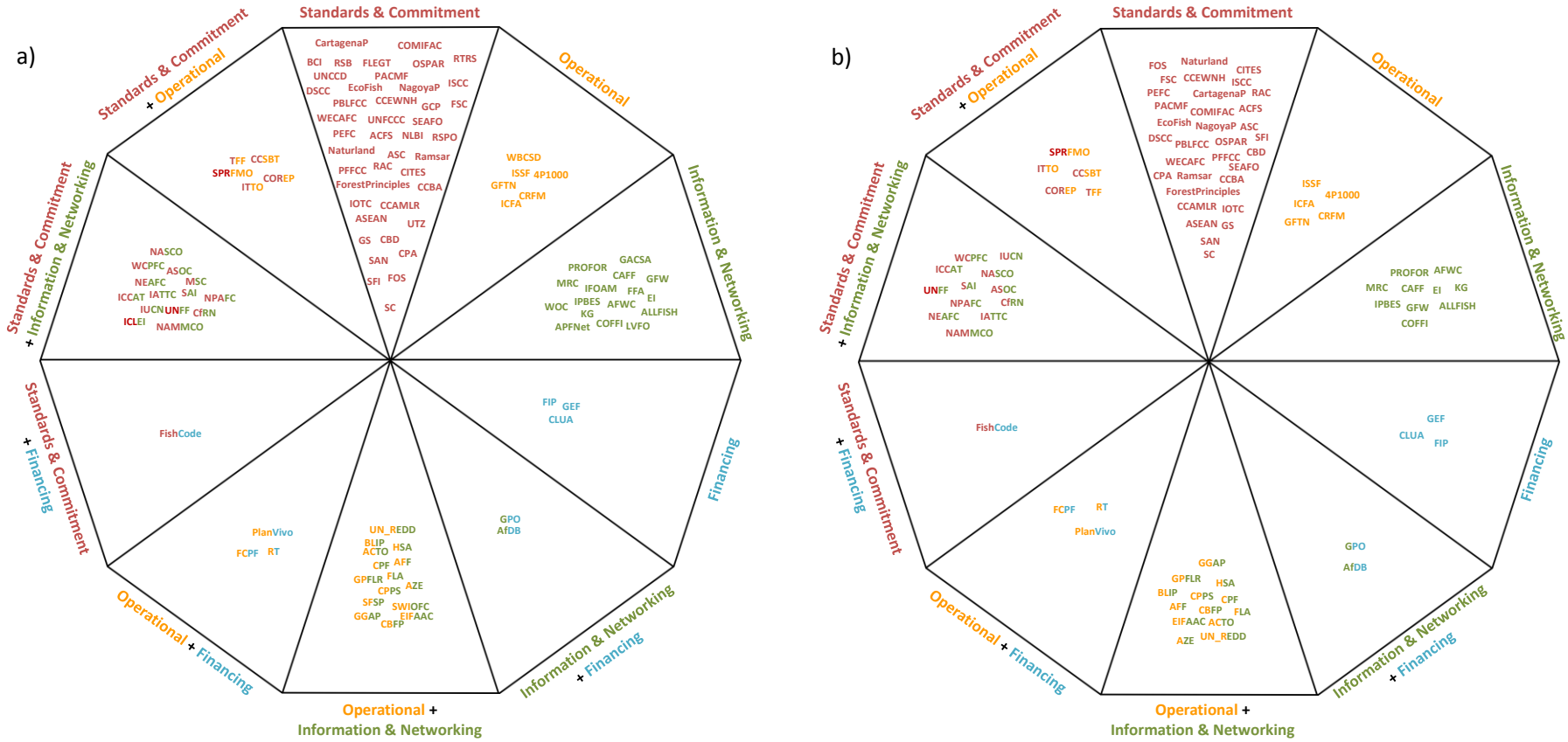

Figure 5 *Governance decagons, each visualising a cluster in the institutional landscape on governing for biodiversity: a) All institutions (n=108), b) Conservation cluster (n=87).*

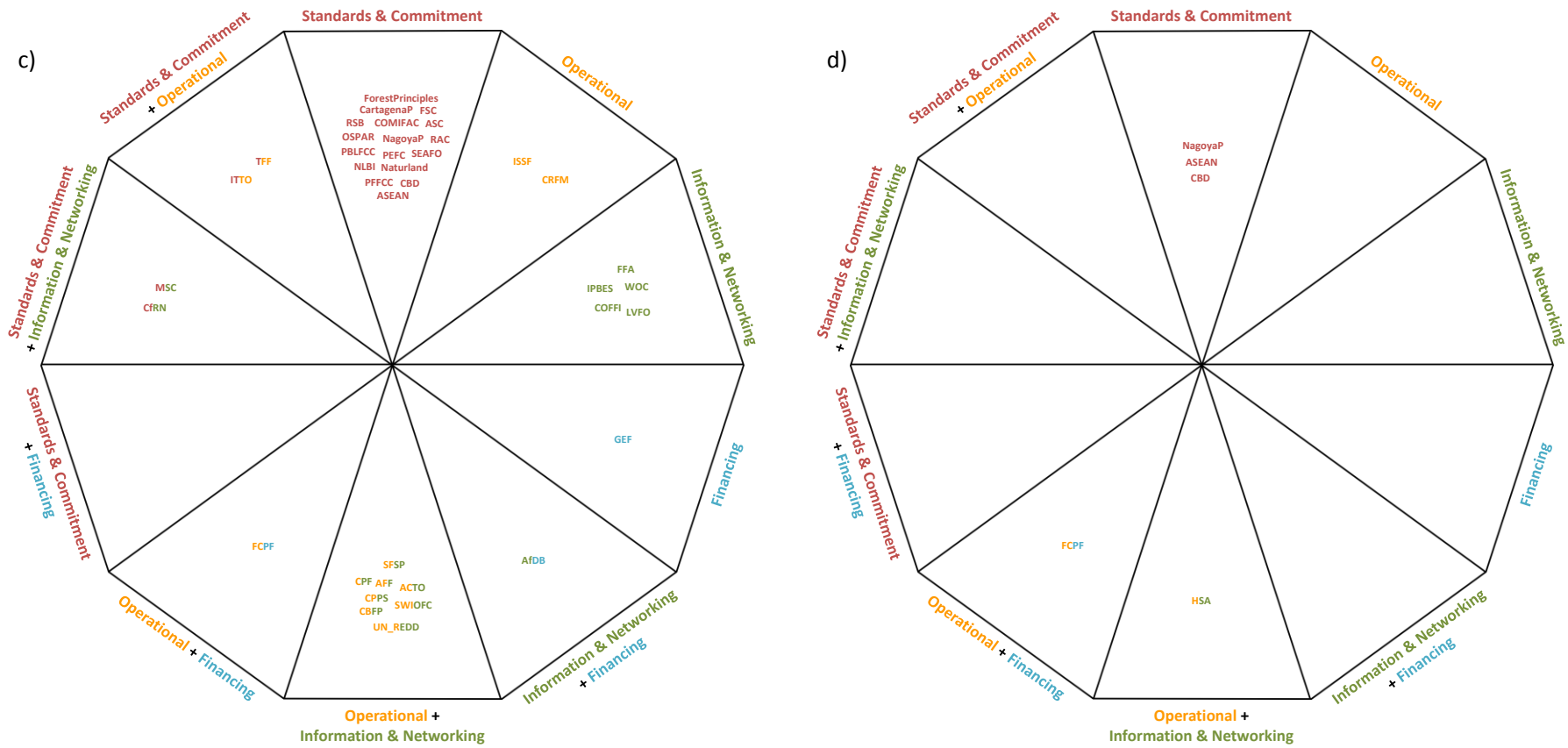

Figure 6 *Four different governance decagons, each visualising a cluster in the institutional landscape on governing for biodiversity: c) Sustainable Use cluster (n=38) and d) the Access and Benefit sharing cluster (n=5).*

Table 3 Numerical summary of institutions' actor constellation and roles.

	Standards & Commitments	Operational	Information & Networking	Financing	Standards & Commitments + Operational	Operational + Information & Networking	Information & Networking + Financing	Standards & Commitments + Information & Networking	Standards & Commitments + Financing	Operational + Financing	Total (Zone)	%
1	23	1	7	2	4	5	1	10	0	0	**53**	*49.1*
2	1	1	1	1	0	1	0	1	0	0	***6***	*5.6*
3	11	0	0	0	0	2	0	1	0	2	**16**	*14.8*
4	0	0	1	0	0	0	0	0	0	0	**1**	*0.9*
5	2	0	2	0	0	3	0	0	0	0	**7**	*6.5*
6	5	2	1	0	1	0	0	1	0	0	**10**	*9.2*
7	1	2	4	0	0	4	1	1	1	1	**15**	*13.9*
Total (Role)	***43***	***6***	***16***	***3***	***5***	***15***	***2***	***14***	***1***	***3***	**108**	**100%**

Looking at all the institutions in Figure 3a, we can observe that public institutions are dominant in numbers. 49% of all the institutions consist solely of public actors, and these participate in 70% of the institutions. This prevalence is largely due to the presence of institutions that govern biodiversity next to fishery and forestry. 22 of 37 (59%) fishery related institution and 26 of 48 (49%) forest related institutions (49%) are purely public (see Annex B). Together these two issue areas cover 48 of the 53 institution in zone 1. They largely consist of international agreements and protocols such as the CDB's Nagoya Protocol or the various regional FAO fishery agreements such as the Western Central Atlantic Fishery Commission and the European Inland Fisheries and Aquaculture Advisory Commission. Looking at the other issue areas, there are no institution related to agriculture in zone 1 and only three related to climate change.

Compared to the distribution of institutions governing climate change (see Widerberg, Pattberg, and Kristensen 2016), the presence of business actors is relatively low in the institutional landscape on governing for biodiversity. In the climate change governance architecture, 16% of all institutions are composed entirely of firm actors and they take part in 65%, whereas only 6% of the biodiversity institutions are governed purely by firms who partake in 30%. Making the same comparison with CSO actors, they are slightly more dominant in the institutional landscape on governing for biodiversity, where they are represented in 44% (39% for climate change) and stand alone in 15% (6% for climate change).

This difference between private actors in climate change and biodiversity governance reflects well the general level of attention given to climate change over biodiversity in the business sector. First of all, from the international community, there has been more focus on engaging firm actors in relation to climate change e.g. through wide spanning emission trading schemes such as the EU ETS and through increase reporting as provided by the Carbon Disclosure Project (CDP) as well as various carbon offsetting initiatives. Additionally, the relationships between most types of production and greenhouse gas emissions are arguably better understood and more widely acknowledged than the relations between many types of production and biodiversity.

Looking at biodiversity impacts they are mainly associated with products related to forest use, such as timber, palm oil and biofuels. This is also reflected in the institutional landscape on governing for biodiversity where private actors predominantly engage through standard and certification minded institutions such as RSPO, Roundtable on Sustainable Biofuels (RSB) and the Forest Stewardship Council (FSC) (see also Annex B).

Considering the different clusters, we see that conservation, included in the narrative of 87 (81%) of the institutions, is clearly the most commonly approach to biodiversity governance. Sustainable use is used as a mode of governance in 38 (35%) of the institutions, whereas access and benefit sharing is practiced in only 5 (5%). This is not surprising considering that conservation and protectionism is the easiest to implement and also the oldest approach in governing biodiversity and habitats.

The dominance of public institutions is reflected across all clusters. In fact, it increases as we move from conservation towards sustainable use and access and benefit sharing. Pertaining to conservation, 52% are purely public and 70% have public actors participating. In the sustainable use cluster the numbers are 63% and 75% and for access and benefit sharing 60% and 100%.

Standards and Commitments (S&C) and Information and Networking (I&N) are the two most common functional modes (roles) across the institutional landscape on governing for biodiversity. 40% of the institutions govern primarily using S&C and 58% include it in their functional portfolio. Considering I&N it is used on its own in 15% of the institutions and 44% employs it in tandem with another role. Financing is only used as part of the portfolio in 8% of the institutions, whereas Operational is used in 27%.

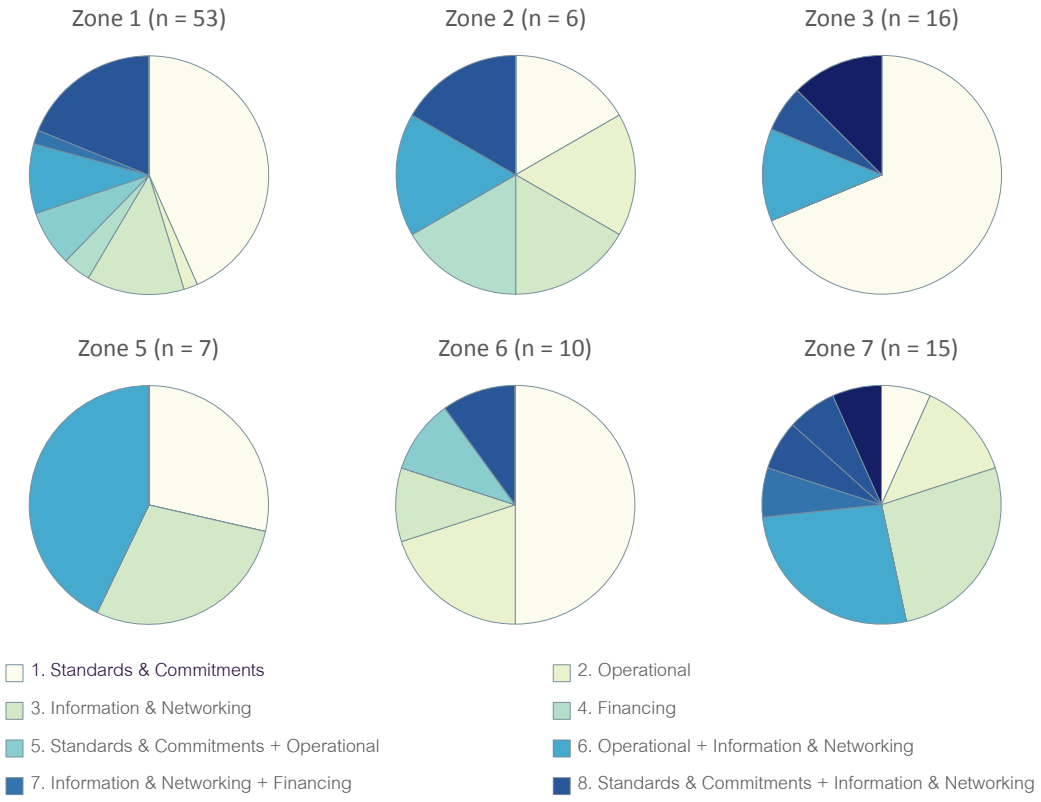

Figure 7 *Roles and types distribution across zones. Zone 4 is excluded as it only has one institution (role 3). The numbers 1-10 in the pies signify the role classifiers, not the number of institutions.*

3.2 Institutional members

As of December 2016, dataset included 9641 unique governing members (see table 4). The distribution of members across zones (Figure 6) adds to the information provided in the governance triangles. It suggests that public actors are not necessarily dominant despite their overwhelming relative presence in 70% of institutions. Whereas zones with public presence contain 5333 (55%) of the members, zones with private actor presence contain 8641 (90%) members. The figures and table above clearly illustrate that the shift from public towards private and multi-stakeholder environmental governance, as outlined by for instance by Bulkeley *et al*. (2014), also manifests itself in the field of biodiversity governance. Zones 4,5,6 and 7 – where more than one type of actor govern – contain 63% of the total members and 80% of the unique members.

The large difference between total and unique public members demonstrates that public actors, particularly countries, more frequently partake in multiple institutions than their private counterparts. Looking at participation frequency, 170 countries partake in 10 or more institutions 92 in 15 or more and 31 in more than 20. France for instance participates in 29 institutions, the United Kingdom in 25 and Congo and the Netherlands in 23, Gabon, Ghana and Kenya in 22 and the Philippines in 21. Considering the CSO category, only 5 actors, including the WWF, The Nature Conservancy and Bird Life take part in more than 6 institutions. Finally, only two firms partake in maximum 4 institutions.

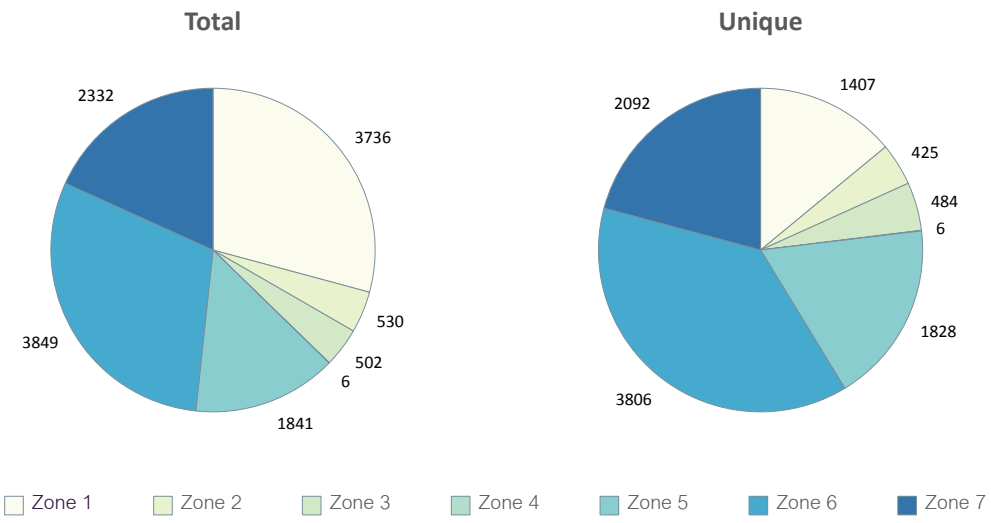

Figure 8 *Active governing members in the 108 intuitions across seven zones. Note: The unique counts are calculated on a zone-to-zone basis meaning that there are still potential overlaps between zones. N = 12796 (left) and 10048 (right). The unique number of members calculated across all the zones is 9641.*

4 Monitoring, reporting and verification in the institutional landscape on governance for biodiversity

This section presents an MRV assessment of transnational initiatives within the institutional landscape on governing for biodiversity. First, it provides an assessment of 55 transnational institutions and second, it presents eight case studies examine what the institutions aim to do, who they include, what they do, how they do it and whether or not they are successful in achieving their objectives.

4.1 MRV assessment

MRV frameworks are important to establish legitimacy through increasing institutional transparency and accountability (Widerberg and Pattberg 2016). MRV practices vary substantially across the transnational segment of the institutional landscape on governing for biodiversity (see Annex C). Some institutions such as the information network Allfish, for instance, do not provide any information regarding what they do or whether they are successful in pursuing their goals. A few, including the High Sea Alliance, have clauses in their framework mentioning that they carry out monitoring, but do not publish any information regarding potential findings. Most institutions, including the World Ocean Council and the WWF's Global Forest and Trade Network clearly monitor their activities and report information of this publicly through regular progress updates, annual reports, research or similar documents. Finally, several institutions, particularly standards and certification schemes, for example UTZ and the BCI, have full-fledged monitoring, evaluation, reporting and verification mechanisms in place. In addition, the vast majority of these uses third-party certification bodies, but two institutions carry out their own verification. Aside from increasing institutions' transparency and legitimacy, MRV is also important to assess their degree of institutionalisation and helps to scope potential governance impacts. The graph below gives an overview of MRV for the 55 transnational institutions in the institutional landscape. A full overview showing individual institutions along with a brief description of their level and type of MRV can be found in Annex C.

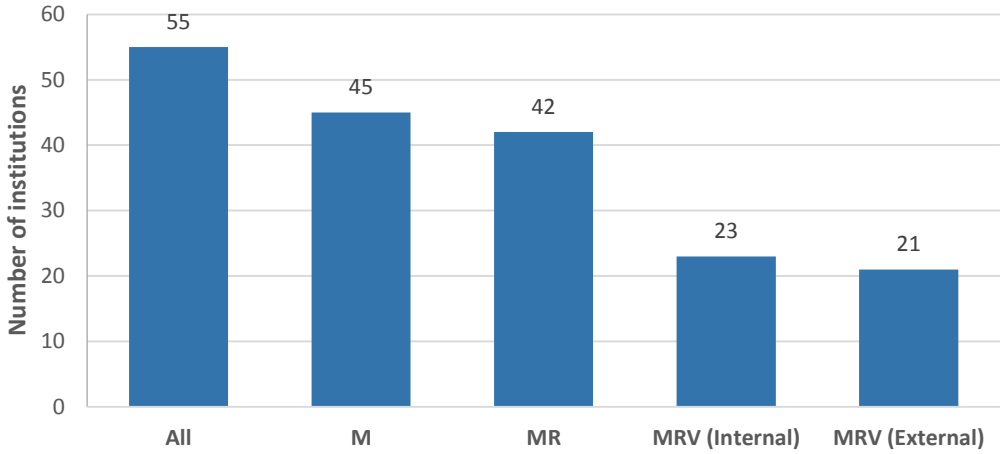

Figure 9 *Distribution of M, MR and MRV frameworks across 55 transnational institutions in the institutional landscape on governing for biodiversity. The graph should be interpreted as the number of institutions with at least the specific levels of MRV. 7 institutions had no MRV and 3 had their websites under construction.*

Of the 55 transnational institutions institutional landscape, 82% have a monitoring framework, 76% publish reports on their activities, outputs, outcomes and/or impacts, 42% also implements some kind of verification and 36% have a full MRV framework with third party verification in place. Only seven institutions (13%) do not have any monitoring, reporting or verification in place. The general decreasing trend was expected as one would expect that fewer do more. However, that so many institutions implement the full MRV package is surprising.

Transnational institutions have been criticised for lacking transparency and accountability (see e.g. Bulkeley *et al*. 2014). Therefore, it is surprising that a majority of the institutions are taking action towards improving this. Additionally, when institutions implement verification it is interesting and positive that they seem to do so almost entirely through third-party verifiers. Of the 23 institutions using verification, only the Global Partnerships for Responsible Fisheries (FishCode Programme) and The Gold Standard do not claim to use third-party verifiers. This indicates that the added value of internal verification, in terms of legitimacy, is perceived to be lower than for third party verification.

Monitoring and reporting are useful and important for transparency and show whether an institution is active in trying to achieve what it says it want to accomplish. As for verification, however, it is arguably of varying importance depending on the activities of specific institutions. For instance, for a standard and certification institutions like the RSPO or the FSC, verification is essential to ensure and confirm that their activities have the intended effect. For information and knowledge networks such as IFOAM, Organics International or the Congo Basin Forest Partnership (CBFP), the added value of verification is lower as these types of institutions to achieve fewer tangible targets.

The results indicate that institutions, for which MRV are more important, are more prone to have an MRV framework in place. Of the 20 institutions working through standards and commitments, 18 (90%) has some sort of verification mechanism and 17 (85%) implements full third party verification. In comparison, none of the 9 institutions working through information and networking have a verification mechanism in place and three (33%) do not engage with any form of monitoring or reporting.

4.2 Case study analyses

This section presents and discusses eight case studies selected from the 55 transnational institutions in the institutional landscape on governing for biodiversity. The case studies provide an overview of the institutions' background and objective, their operational structure, the way they engage members, their potential MRV frameworks as well as an assessment of potential outputs, outcomes and impacts. The analyses provide an overview of how eight different institutions operate and how they perform. Due to limited availability of academic literature on the eight cases, most information has been derived from their respective websites and self-reported information such as annual reports, newsletters and organisational charters.

The evaluation separates between output, outcome and impact level performance (Easton 1965). Output are the concrete actions taken by institutions. Such actions could for instance be the implementation of a standardization scheme to avoid deforestation and habitat losses. Outcome refers to the effectiveness of institutions in instigating societal or behavioural changes through their outputs. For instance, a company subscribing and adhering to a standard, thereby changing their conducts related to e.g. farming or tree logging, constitutes an outcome. Finally, impact refers to environmental changes resulting from the outcomes of the institutions' actions.

This could for instance be the successful preservation of a species, or the protection of a species' natural habitat.

Performance in this report is assessed at the outcome level. Although, it is possible to make some general statements regarding the potential impact on biodiversity levels for some of intuitions over time, it is not possible to assess the de facto impacts. First, there are no counterfactuals against which the impacts can be measured, and second, the actual impacts on decreasing biodiversity can only be assessed over a longer time period. Second, data is missing for the specific locations in which a given institution operates. However, some approximation regarding the impact potential of the different case-studies is presented. These are largely based on the possible long term effects of e.g. a standard scheme, assuming continued implementation and adherence of actors.

Although the case-study results cannot be used to gauge general trends in the institutional landscape on governing for biodiversity, they do provide important and insightful information regarding how different types of institutions operate. Apart from the two standard and certification schemes GGAP and RSB, the case-studies have different functions. Four institutions do networking but with different emphasis. CBFP facilitates between funds and projects initiators, GPFLR focus on learning, SAI provides an information platform based on the knowledge available in its network and WBCSD hosts a large network of businesses initiating several activities such as reporting, standard creation and project implementation. Additionally, FCFP funds and assists projects related to REDD+ activities.

In the summary table below we see several clear trends including:

1. All the institutions have monitoring and reporting mechanisms in place and all publish reports to the public. However, only the two standard and certification schemes, GGAP and RSB, employ verification procedures (both third party verification).
2. All provide some degree of publicly information as well as regular updates.
3. All eight institutions have proven some outputs relevant to biodiversity governance. The youngest, SFSP, only have basic structural outputs as it is still being established.
4. Half of the institutions show a high level of biodiversity relevant performance. In the case of the two certification schemes SAI and GGAP, outcomes include the successful implementation of their standards which are intended to govern biodiversity. The WBCSD's performance is mainly constituted by the implementation of their sustainability reporting standard which encourage increased sustainable conduct within businesses related to issues such as water, climate and biodiversity.
5. None of the institutions have proven any biodiversity impacts. For the standards and certification schemes impacts are likely occurring, but there are two obstacles to measuring them. First, there are no counterfactual to measure potential impacts against, and second, impacts will likely materialise only time. For all of the institutions, as for biodiversity in general, tangible impacts are difficult to measure.

Table 4 Summary table of case study findings

	CBFP	FCPF	GPFLR	SFSP	GGAP	RSB	SAI	WBCSD
Actor Types	Public / CSO /Firm	Public / CSO /Firm	Public / CSO	Public / CSO /Firm	Firm	Public / CSO /Firm	Firm	Firm
Size/Members	79	62	36	22	247	80	75	186
Main Functions	Facilitation Network	Funding & Assistance	Learning Network	Information & Facilitation	Standard / Certification	Standard / Certification	Knowledge Network	Standard / Operational
Year	2002	2008	2003	2015	1997	2007	2010	1995
M	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
V	No	No	No	No	Yes	Yes	No	No
Public information	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observed performance	No data	Yes	No data	No data	Yes	Yes	Yes	Yes

4.2.1 Congo Basin Forest Partnership (CBFP)

Start year	2002
Membership type	Hybrid: Public, CSO and firm actors have governing capacity
Members	79
Website	http://pfbc-cbfp.org/home.html
MRV	Monitoring and reporting is in place and made public. No verification procedure.
Outputs	Yes. Active institution publishing structural updates and news.
Performance	No clear outcomes or impacts.

Background and objective

The Congo Basin Forest Partnership (CBFP) was launched as a multi-stakeholder partnership at the 2002 World Summit on Sustainable Development in Johannesburg. It comprises 79 members including governments from developed and developing countries, IOs, NGOs, regional organisations and firms. In addition to the key overarching activities of promoting conservation and sustainable management of forests in the Congo Basin, the first clause of the CBFP's Cooperation Framework is:

"The shared goal of CBFP partners is to improve effective technical and financial support for biodiversity conservation, sustainable management of forest ecosystems, and the alleviation of poverty in Central African countries."[5]

CBFP does not take a direct role in implementing or financing programs, but serves as a mediator between donor and implementing agencies as well as a forum providing dialogue between its partners.

Biodiversity governance

Membership and participation

The CBPF membership is diverse, spanning several state and non-state actors from regional and international contexts as well as developing and developed countries. They have identified and engaged key regional partners, for instance COMIFAC and Observatory for the Forests of Central Africa (OFCA), important considering to the regionally centred objectives of the partnership.

The partnership does not have a central administration but is facilitated in two year periods by member governments. All CBFP members have access to the annual meeting of parties where they share information and knowledge as well as decide on which activities to support and prioritise. The agendas for these meetings, are set by the facilitator. So far, the facilitators have solely been state actors including the US (twice), France, Germany, Canada and the EU (current facilitator). The meetings, usually take place in the Congo Basin[6]. The current facilitator aims to strengthen Central African Forests Commission (COMIFAC) in order to give them leadership of the CBFP from 2018 onwards.

Mode of operation

CBFP takes on a role of facilitation, networking and information sharing between donors and actors engaged with project-implementation. Although actual implementation or funding of projects is not carried out directly by the CBFP, some of its partners manage their own programs and projects irrespectively. One of these partners is the COMIFAC, with which the CBFP also collaborates closely to achieve its overarching goals of promoting conservation and sustainable management while improving living standards in the Congo Basin[7]. This is evident by the CBFPs commitment to COMIFACs convergence plan as a key component in their Cooperation Framework[8]. Together, this entails that CBFP's directly stated objective to govern biodiversity is manifested only indirectly by actors operating external to the institution. This also makes it difficult to identify the exact role and performance of CBPF's operation in achieving potential outcomes.

Output and performance

CBFP is an active partnership, as seen by the continuous updates and briefings on their website. There are, however, no available reports estimating the partnership's performance in terms of outcomes and potential impacts, for instance through contributions to project facilitation. Links are provided to key partners such as the COMIFAC, that manage several projects relevant to biodiversity and forest governance.

5 CBPF 2016a: http://pfbc-cbfp.org/workingstructure.html
6 CBFP 2016b: http://pfbc-cbfp.org/proceedings/items/EU-Cooperation-framework-en.html
7 CBFP 2016c: http://pfbc-cbfp.org/objectifs_en.html
8 CBFP 2016d: http://pfbc-cbfp.org/facilitation_en.html

However, it is not possible to pinpoint the CBFP's role in contribution to such projects. Despite several clearly articulated steps to improve the institution and its performance[9], there are no information available and no signs of a reporting structure where potential successes can be measured and communicated

MRV

CBFP's cooperation framework states that an advisory committee is tasked with continuous monitoring of activities conducted within the partnership. However, there are no mention of reporting and/or verification of such activities. Additionally, potential findings from monitoring of activities are not made publicly available. There is no verification procedure.

Final remarks

The CBFP is an active facilitator and platform in the field of forest and biodiversity governance as well as sustainable development and management. Although the partnership functions without a central administration they have a clear and transparent governance structure and are currently working towards establishing a more permanent leadership. The ongoing facilitator, the EU has set promising goals to further concretise the partnership's role and to clarify its contributions[10].

An abundance of documents related to the partnership's structure and objectives are publicly available, however reports on activities and achievements are missing. This makes it difficult to assess the partnership's performance. Although CBFP does not engage in direct implementation of projects or financing, it would be useful to have an overview of the projects in which the partnership is/has been involved. The ongoing transition towards a more stable administration by a single actor, the COMIFAC, could potentially increase the CBFP's focus since the agenda setting will not change every two years.

Finally, in a recently released letter leading up to the upcoming annual meeting the EU encourage CBFP members to consider the added value of the partnership[11]. It is recommendable that such considerations are also clearly communicated to the public as this would significantly improve the understanding of the partnership.

[9] Ibid,
[10] CBFeP 2016d: http://pfbc-cbfp.org/facilitation_en.html.
[11] CBFP 2016e: http://pfbc-cbfp.org/proceedings/items/EU-Cooperation-framework-en.html

4.2.2 Forest Carbon Partnership Facility (FCPF)

Start year	2008
Membership type	Hybrid: Public, CSO and firm actors have governing capacity.
Members	62
Website	https://www.forestcarbonpartnership.org/
MRV	Monitoring and evaluation framework in place and publicly reported. No verification procedure in.
Output	Yes. Publish annual reports. Provide REDD+ assistance and funding. Several projects are under development.
Performance	Clear outcomes. Several projects are underway, and several objectives fulfilled. Biodiversity impacts are not clear and will only manifest over time.

Background and objective

The Forest Carbon Partnership Facility (FCPF) is a multi-stakeholder partnership and funding initiative. It was designed by the World Bank and The Nature Conservancy and initiated in 2008. Its primary goal is to support REDD+ activities by:

"[Providing] incentives to reduce emissions while protecting forests, conserving biodiversity, and enhancing the livelihoods of forest-dependent Indigenous Peoples and local communities."[12]

Currently FCPF try to meet this objective across 47 developing countries[13]. This is done through two separate but mutually dependent funding mechanisms, the Readiness Fund and the Carbon Fund. Both are fuelled by donations from state and non-state actors including OECD governments, The Nature Conservancy and BP Technology Ventures Inc. In total the partnership has raised over $1 billion across the two funds.

Biodiversity governance

Membership and participation

Two groups of participants make up the FCPF[14]: 1) REDD+ Country Participants (47 countries from tropical and subtropical regions), 2) Financial Contributors (17 public and private actors contributing to the two funds). Together the 64 members constitute the decision-making body of the FCPF in form of a Participants Assembly (PA) and a Participants Committee (PC).

The former elects the latter on an annual basis. The PC reviews countries' REDD+ submissions and decides on grants and resource allocation. Aside from the governing members, all the meetings as well as related documents are open to observers consisting of NGOs, forest-dependent indigenous people and forest dwellers[15].

[12] FCPF 2013a: https://www.forestcarbonpartnership.org/sites/fcp/files/2013/june2013/Carbon%20Fund-web_1.pdf (pp. 3)
[13] FCPF 2016a: https://www.forestcarbonpartnership.org/redd-country-participants
[14] Ibid.
[15] FCPF 2016b: https://www.forestcarbonpartnership.org/charter-and-governance-documents

On the level of implementation, 2 of 19 large projects ongoing in 2016 directly account for and include indigenous people inhabiting the land proposed for the projects and 10 projects aim to collaborate with local stakeholders and communities[16].

Mode of operation

REDD+ countries have to take the initiative to partake in the FCPC by submitting a Readiness Plan Idea Note[17].

Biodiversity is governed directly through the FCPF's Carbon Fund, which focus on implementing a system where developing countries are paid for verified emissions achieved through REDD+ activities. This is supposed to incentivise sustainable management and protection of forests as well as conservation of biodiversity, for instance by valuing untouched forest higher that the value it is worth once logged[18].

Although the readiness fund does not directly contribute to biodiversity governance, it plays an important factor in providing a foundation by helping applicant countries to successfully develop and conduct REDD+ activities. In order to qualify for the Carbon Fund, a country first has to make tangible progress through the Readiness Program, for instance by designing action plans and MRV frameworks.

Output and performance

From the outset, the FCPF publishes annual progress reports outlining their activities and, from 2013 onwards, including chapters on achievements in terms of outputs, outcomes and impacts[19]. The FCPF states four key objectives in its charter: 1) To assist REDD+ countries in their implementation efforts, 2) to pilot a performance based payment to emission reduction system, 3) to test ways to sustain livelihoods and conserve biodiversity under the REDD+ agenda and 4) to disseminate broadly the knowledge gained through the partnership development and its efforts through the Readiness Fund and Carbon Fund[20]. Looking at the 2016 Annual Report, these objectives are evaluated in turn:

1. In 2016 eight new REDD+ Emission Reductions–Program Idea Notes were included into the FCFP Carbon Fund. This means that large-scale programs across 19 developing countries are in place (FCPF 2016e). By 2016 the Readiness Fund reached a capital capacity for REDD+ assistance of $370 million and the Carbon Fund a capital of $750 million.
2. The payment scheme is yet to be piloted, but the 2016 was the year when the first two countries advanced to present their Emission Reductions Program Documents. This is the essential step before to initiating large-scale carbon transactions and

[16] FCPC 2016d: https://www.forestcarbonpartnership.org/sites/fcp/files/2016/Sep/FCFP%20Annual%20Report%20FY16.pdf
[17] FCPF 2016a: https://www.forestcarbonpartnership.org/redd-country-participants
[18] FCPF 2013b: https://www.forestcarbonpartnership.org/sites/fcp/files/2013/june2013/Final%20Draft%20ME%20framework_June %202013_FMT%20Note%202012-11%20rev%202_English.pdf
[19] FCPF 2016e: https://www.forestcarbonpartnership.org/fcpf-information-and-news
[20] FCPC 2016d: https://www.forestcarbonpartnership.org/sites/fcp/files/2016/Sep/FCFP%20Annual%20Report%20FY16.pdf

signing an Emission Reductions Payment Agreement. FCPF expects that this will happen for the first time in the financial year of 2017[21].

3. Two of the current 19 projects, one in Madagascar and one in Democratic Republic of Congo, directly aim to protect or conserve biodiversity and the project in Dominican Republic include protection of endemic flora and fauna[22]. The programs cover more than 80 million hectares of which at least 40 million hectares are in species rich areas including tropical and temperate forests in Western African and South America. Further specific outcomes include the change of Nepalese legislation to ensure equitable benefit and sharing of the benefits from conservation and management of forest, pant resources and biodiversity[23].
4. Judging by the annual reports and the level of information provided by the FCPF in general, it seems that the organisation is doing well to record, inform and critically reflect on their projects, progress and performance[24].

MRV

In 2013 the FCPF implemented a Monitoring and Evaluation (M&E) framework. It was developed specifically for the period 2013-2020 and focus primarily on monitoring and reporting the effectiveness and efficiency of program delivery[25]. Additionally, the framework includes very clear matrices and frameworks for measuring and reporting objectives, outputs and expected impacts on a program basis as well as the overarching FCPF structure[26]. The framework does not contain any clauses for a verification mechanism.

An additional checking procedure is implemented through the World Bank who works to ensure that the FCPF operations comply with applicable policies related to safeguards, procurement and financial management[27].

Final remarks

FCPF has already been recognised as a major proponent in aiding the preparation developing countries' Readiness Preparation Proposals (R-PP) as well as providing funding of REDD+ projects (Pirard and Belna 2012, Kabiri 2016). Looking at the projects they have supported it is clear that aspects such as sustainable management, equitable sharing of benefits as well as biodiversity protection is given much attention. An examination of the FCPF's annual reports provides a good overview of outcomes from their projects. However, as potential biodiversity impacts will only become apparent over longer time, it is too early to say whether the programmes will be successful in reaching their overarching objectives. Particularly because the project details provided to the public are too vague to determine exactly where protection will take place and to what extent. Furthermore, it is unclear what sustainable management entails in practice for the regional biodiversity.

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21 Ibid.
22 Ibid.
23 Ibid. (pp. 31)
24 FCPF 2016e: https://www.forestcarbonpartnership.org/fcpf-information-and-news
25 FCPF 2016b: https://www.forestcarbonpartnership.org/charter-and-governance-documents
26 FCPF 2013b: https://www.forestcarbonpartnership.org/sites/fcp/files/2013/june2013/Final%20Draft%20ME%20framework_June %202013_FMT%20Note%202012-11%20rev%202_English.pdf
27 FCPF 2016a: https://www.forestcarbonpartnership.org/redd-country-participants

The internal M&E framework is suitable for the current status of the program. Meaning that the most important aspects at this stage if for the FCPF itself to ensure that programs as well as the facility itself are proceeding according to plan. However, once the projects enter into implementation, it would be beneficial to develop an external verification procedure to ensure that the promised targets are actually achieved. This will contribute better information to policymakers and the public, as well as increase the transparency and legitimacy of FCPF as an institution. Finally, aside from the informative annual reports, it would benefit the information flow if more detailed information on the individual projects were published through the FCPF's website.

4.2.3 The Global Partnership on Forest Landscape Restoration (GPFLR)

Start year	2003
Membership type	Hybrid: Public and CSO actors have governing capacity.
Members	36
Website	**http://www.forestlandscaperestoration.org/**
MRV	Individual members all have monitoring and reporting frameworks in place. Progress reports are made public. Monitor and reporting network in place for information sharing. A lot of public information. No verification procedure.
Output	Some. Continuous updates and public information through learning platform is available.
Performance	No clear outcomes or impacts.

Background and objective

Hosted by IUCN, the Global Partnership on Forest Landscape Restoration (GPFLR) was launched in 2003 as a platform for development and forest restoration. It was initially established by IUCN, WWF and the Forestry Commission of Great Britain and has since been joined by 25 governments, IOs and NGOs. The GPFLR positions itself as a "leading network for forest and landscape restoration practitioners and policy-makers."[28]

The GPFLR is a learning network, in which a range of different organisations share knowledge pertaining to the restoration of degraded forests and landscapes. The network is proactive in collecting and disseminating information among its members. The key objective of the GPFLR is to unite "governments, organisations, communities and individuals with a common goal: restoring the world's degraded and deforested lands."[29]

Biodiversity governance

Membership and participation

The GPFLR has 36 members including governments to IOs, NGOs and research institutes. The members of the partnership contribute by sharing their expertise, policies and projects. The GPFLR is also used by its members to identify issue areas and allocate funding[30]. As a member of the GPFLR, one can access all the latest

[28] GPFLR 2016a: http://www.forestlandscaperestoration.org/about-partnership
[29] GPFLR 2016b: http://www.forestlandscaperestoration.org/our-approach
[30] GPFLR 2016c: http://www.forestlandscaperestoration.org/our-partners

research, forest restoration tools, and policy information collected through the member organisations and shared on the GPFLR learning website[31].

The partnership's activities are guided by a small group of representatives from some of the most active members. In addition to this group, which can be considered the GPFLR board, a secretariat is hosted by IUCN and learning support is provided by Wageningen Centre for Development Innovation from the Netherlands[32]. More information on the governance structure is not provided by the GPFLR. It is unclear how the board is chosen, whether they rotate and what role the remaining members have.

Mode of operation

GPFLR can be seen as a knowledge sharing agent. It collects best practices and case study examples from its members' projects to "catalys[e] and reinforce[e] a network of diverse examples of restoration of forests and degraded lands that deliver benefits to local communities and to nature, and fulfil international commitments on forests."[33] The GPFLR works through so-called learning sites, which are used to link international agendas on forest restoration to local restoration practices and vice versa (Pistorius and Freiberg 2014).

The overarching approach of the GPFLR members is described as Forest Landscape Restoration (FLP), acknowledging the multiple functions of a landscape. This is a holistic approach to landscape restoration which goes beyond commitments to tree cover maximisation and instead seeks to optimise existing ecosystem service benefits and social livelihoods within a landscape. This way the goal of an FLR approach is not only to restore the landscape's forest to its original state, but also to fulfil the needs of all stakeholders involved, balancing people and the environment[34].

One of GPFLR's key-activities is its support for the Bonn Challenge: a high-level commitment issued by IUCN and the German government and the result of an event organised in Bonn in 2011 attended by world leaders. Essentially, it's a global commitment to restore 150 million hectares of all degraded and deforested lands by 2020 and up to 350 million hectares by 2030. The target was later endorsed in the New York Declaration on Forests of the 2014 UN Climate Summit. The Bonn challenge directly links to other commitments codified in for example the CBD, UNFCCC REDD+ and the Rio+20 (Pistorius and Freiberg 2014). GPFLR supports the institution by disseminating the necessary knowledge and tools to achieve the target.

Output and performance

It is difficult to trace the performance of the GPFLR to date as it does not publish any progress or assessment reports. The institution does, however, have clear outputs through its learning sites, where it provides links to reports published by its member organisations, most notably IUCN. While the member organisations' reports are detailed and rigorously done, it is not possible to pinpoint the role of the GPFLR in these achievements. The website of the Bonn challenge keeps track of how much forest has been restored to date, but, again, the specific role of the GPFLR in these achievements remains unclear, as the role of the GPFLR is limited to learning

[31] GPFLR 2016d: http://forestlandscaperestoration.ning.com/
[32] GPFLR 2016a: http://www.forestlandscaperestoration.org/about-partnership
[33] Ibid.
[34] GPFLR 2016e: http://www.forestlandscaperestoration.org/what-do-we-do
GPFLR 2016b: http://www.forestlandscaperestoration.org/our-approach

support[35]. However, continuous updates on new information and its learning sites, listed both on their main website and learning website, indicate that the GPFLR is an active partnership.

MRV

Each of the GPFLR member organisations have a clear monitoring and reporting framework attached to the projects they conduct. Additionally, the GPFLR has a clear monitoring and reporting *network* meant to facilitate knowledge transfer and learning[36]. They publish case study reports of projects where Forest and landscape restoration is being or has been implemented. No mention of a verification procedure is made.

Final remarks

The GPFLR is an active global partnership with representatives of large organisations such as IUCN, FAO the World Bank and governments representatives amongst its members. It continuously updates its learning network to connect existing projects, policies and implementation tools on forest restoration. The Bonn challenge is one of its key commitments and is largely used as a guidance mechanism by its member organisations. The overarching approach of the GPFLR is the integrated Forest Landscape Restoration approach, holistically combining efforts to forest restoration with livelihood improvements.

GPFLR's performance related to biodiversity and its goal on forest restoration is unclear. This is largely due to a lack of specific reporting by the GPFLR itself. In addition. while the GPFLR describes itself as a proactive learning network, it remains a passive agent that is not involved in implementing projects itself.

In order to assess the contribution and effectiveness of the GPFLR as a learning network, it would be advisable that they publish biennial or annual achievement reports that list projects in which the GPFLR has been directly involved and how their involvement has led to measured impact (i.e. causal attribution). Additionally, the GPFLR could improve its transparency. Information regarding its governance structure is particularly sparse, e.g. how chairs are chosen and whether other members of the partnership will get a chance to host chairmanship.

[35] GPFLR 2016f: http://www.bonnchallenge.org/

[36] GPFLR 2016g: http://www.forestlandscaperestoration.org/case-study/learning-sitess

4.2.4 Sustainable Food Systems Programme (SFSP)

Start year	2015
Membership type	Hybrid: Public, CSO and firm actors have governing capacity.
Members	22
Website	http://www.unep.org/10yfp/Programmes/ProgrammeConsultationandCurrentStatus/Sustainablefoodsystems/tabid/1036781/Default.aspx
MRV	Monitoring and reporting in place and made public. No verification procedure.
Output	Yes. Some structural outputs.
Performance	No clear outcomes or impacts.

Background and objective

The Sustainable Food Systems Programme (SFSP) is a multi-stakeholder initiative established under the 10-year Framework for Programmes on Sustainable Consumption and Production Patterns (10YFP) in 2015[37].

The vision of the SFSP is that all food systems should sustainably provide food security and nutrition for current and future generations. In line with their vision, the goal of the SFSP is to "accelerate the shift towards more sustainable food systems," which it seeks to reach through four activities: Awareness raising, capacity building, increasing access to information and tools, and building synergies and cooperation[38].

The 10YFP, of which the SFSP is part, is a global action framework with the overarching goal of promoting, accelerating and upscaling shifts towards more sustainable consumption and production practices[39]. The 10YFP was an outcome of the Rio+20 and adopted by heads of state in June 2012 (A/CONF.216/5, paragraph 226, "The Future We Want."[40]). Examples of other programmes under the 10YFP are the Sustainable lifestyles and education programme, the sustainable buildings and construction programme and the sustainable public procurement programme. UNEP hosts a secretariat for the 10YFP and the SFSP[41].

Biodiversity governance

Membership and participation

In the 10YFP programme, over 500 stakeholders are involved spanning governments, private sector organisations, CSOs and UN bodies. 10YFP consists of a 10-member board whose members are elected for a two-year term after nomination by their

[37] SFSP 2016a: http://www.unep.org/10yfp/Programmes/ProgrammeConsultationandCurrentStatus/tabid/129606/Default.aspx

[38] SFSP 2016b: http://www.unep.org/10yfp/Programmes/ProgrammeConsultationandCurrentStatus/Sustainablefoodsystems/tabid/1036781/Default.aspx

[39] SFSP 2016c: http://www.unep.org/10yfp/About/Whatisthe10YFP/tabid/106245/Default.aspx

[40] A/CONF.2016/5: http://www.unep.org/resourceefficiency/Portals/24147/scp/10yfp/document/10YFP_english.pdf

[41] SFSP 2016d: http://www.unep.org/10yfp/About/Background/FromRiotoRio/tabid/106248/Default.aspx

regional groups[42]. To fulfil the functions of the 10YFP and administer the Trust Fund, a secretariat is hosted by UNEP.

The SFSP itself is governed by a Multi-Stakeholder Advisory Committee (MAC). The MAC consists of 22 members including government agencies, CSOs, research institutions, UN agencies and private sector organisations. The MAC is led by the Department for Trade and Industry of South Africa, the Federal Office for Agriculture of Switserland, Hivos, and the WWF. They were nominated and officially elected during the SFSP's Kick-off Event. There is no mention of potential co-lead rotations or of further nomination processes[43]. The MAC meets regularly either through teleconferences or face-to face, with the next meeting taking place in June 2017. All organisations interested in joining the 10YFP Programme can do so by submitting an application form through the UNEP 10YFP website[44].

Mode of operation

The SFSP continues the work done by the FAO-UNEP Sustainable Food Systems Programme. It operates according to four goals in line with their objectives. It takes on a facilitating role in multi-stakeholder dialogues to inform policy-makers and promote investments and participation in sustainable food systems.

The Programme acknowledges the importance of biodiversity conservation and restoration in order to create sustainable food systems and mentions that there is a clear relationship between the two. However, while biodiversity is implicitly referred to as a part of SFSP's aim to contribute to operating within planetary boundaries, its main area of focus is social systems[45]. Additionally, no outline is provided as to how their activities will help govern biodiversity. The only direct mention of practical activities related to biodiversity is in the programme proposal, which aims at "developing and implementing monitoring tools to evaluate the impact of food systems on sustainability aspects, e.g. biodiversity"[46].

Output and performance

The SFSP is still in the start-up phase and no concrete outcomes are yet visible. However, the Programme does have some outputs through developing a coherent work structure, concrete objectives and work plans as well as an upstarting project.

Thus far, the SFSP has had several events, mostly meetings of the MAC. From these meetings, summary reports are published listing main discussion points, outcomes and decisions. In addition to several in-depth discussions on the programme's

[42] SFSP 2016j: http://www.unep.org/10yfp/ActorsStructure/Board/tabid/106252/Default.aspx

[43] SFSP 2016i: http://www.unep.org/10yfp/Portals/50150/10YFP%20SFS/Summary%20report%20Kick-off%20event%20SFS%20Programme.pdf

[44] SFSP 2016a: http://www.unep.org/10yfp/Programmes/ProgrammeConsultationandCurrentStatus/tabid/129606/Default.aspx

[45] SFSP 2016e: http://www.unep.org/10yfp/Portals/50150/10YFP%20SFS/SFSP%20brochure%20English%20August%202016-20160822.pdf

[46] SFSP 2016h: http://www.unep.org/10yfp/Portals/50150/10YFP%20SFS/10YFP%20SFSP%20Programme%20document.pdf (pp.23)

progress to date and next steps, the MAC agreed on five emerging cross-cutting themes, as well as two broad categories of projects[47].

In addition, the most recent SFSP's newsletter confirms that the Programme is currently developing a M&E framework, resource mobilisation strategy and a communication strategy. Finally, the first affiliated project of the SFSP was adopted called MyFoodSkills: an online knowledge-sharing platform. Finally, a Trust Fund call for proposals to the SFSP was made and subsequently launched[48].

MRV

Progress report for 10YFP in general are prepared by the UN secretariat and the most recent 10YFP progress report published can be seen as monitoring and reporting for the SFSP too[49]. However, no specific SFSP progress reports have been published to date.

The summary report of the November 2016 MAC meeting states that the 10YFP secretariat is currently developing a monitoring and evaluation framework that includes "both indicators to monitor the 10YFP overall" and also aims to evaluate the progress of the six 10YFP constituent programmes, including the SFSP[50]. In that, M&R is likely to take place in a similar fashion to the other programmes under 10YFP. There is no indication of a verification system.

Final remarks

Currently, the SFSP is still in the early stages of development. Nevertheless, there are clear indications that the programme is growing and moving towards implementation. Since the November MAC meeting, for example, more programme partners were adopted, the commitment to developing a M&E system was made, and tentative dates for future MAC teleconferences and face-to-face meetings were set.

While biodiversity play a part in the overarching aim of the institution, it is unclear how exactly the SFSP hopes to contribute directly to biodiversity governance and how they aim to steer their activities towards harmonising food systems with biodiversity and ecosystem management in general. However, given that the institution is still in its infancy this lack of information does not necessarily indicate negligence of biodiversity as a feature in their activities.

47 SFSP 2016f: http://www.unep.org/10yfp/Portals/50150/10YFP%20SFS/Summary%20report%203rd%20MAC%20meeting%20(face-to-face).pdf

48 SFSP 2016g: http://us13.forward-to-friend1.com/forward/show?u=bd25991920400ec9f5870de1e&id=922cf81e96

49 UNEP 2014: http://www.unep.org/10yfp/Portals/50150/downloads/ECOSOC_10YF_nov13.pdf

50 SFSP 2016f: http://www.unep.org/10yfp/Portals/50150/10YFP%20SFS/Summary%20report%203rd%20MAC%20meeting%20(face-to-face).pdf

4.2.5 Global G.A.P (GGAP)

Start year	1997
Membership type	Private: Include only firm actors.
Members	247
Website	http://www.globalgap.org/uk_en/who-we-are/
MRV	Full MRV framework in place.
Output	Yes. 16 certification standards have been designed and implemented.
Performance	Clear outcomes through certification. Biodiversity impacts are not clear.

Background and objective

The GlobalG.A.P. (GGAP) standard was founded as EUREPGAP by European retailers from the Euro-Retailer Produce Working Group in 1997. One of its key objectives was to pioneer an Europe-wide harmonised scheme with standardised agricultural practice standards (Kalfagianni and Fuchs 2012). By 2007 the name GlobalG.A.P. was adopted due to increased global participation[51].

The focal point of the institution is its certification scheme, and the key objective of this is to achieve: "Safe and sustainable agricultural production to benefit farmers, retailers and consumers throughout the world."[52] Finally, GlobalG.A.P. states that their certification covers several issues including food safety, workers' health, animal welfare and the "environment (including biodiversity)"[53]. As GlobalG.A.P. is a large and complex system with several intertwined aspects to it, the following outline will focus primarily on the certification segment as this is the main component in their stated biodiversity governance.

Biodiversity governance

Membership and participation

GlobalG.A.P. is currently governed by a board of elected retailer and producer representatives from Belgium, Costa Rica, Netherlands, Spain and United Kingdom. A new election procedure is initiated every 4 years and candidacy is open to all retailer and supplier members[54]. Aside from the board there is a secretariat in place that, within the framework of board resolutions, manages three committees on benchmarking, certification and integrity surveillance. A group of technical committees are working under direction of the board to design the GlobalG.A.P. standards. Participation in the certification is voluntary and essentially open to any producers wishing to partake.

[51] GGAP 2016a: http://www.globalgap.org/uk_en/who-we-are/about-us/history/
[52] GGAP 2016b: http://www.globalgap.org/uk_en/what-we-do/globalg.a.p.-certification/globalg.a.p./
[53] Ibid.
[54] GGAP 2016c: http://www.globalgap.org/export/sites/default/.content/.galleries/documents/130128-GLOBALGAP_Board-ToR.pdf

Mode of operation

The certification covers three scopes of production: Crops, aquaculture, and livestock. Within these scopes, they offer 16 standards for issues such as feed-manufacturing, livestock transportation and crop production. The mode of operation is simple. The certification process is open to all. Once acquired, the certification lasts for one year. This ensures that the impact of the standard is achieved for as long as the certification is upheld.

The certification process has five steps[55]: 1) Acquire the relevant Standard Document Checklist. 2) Find a third-party certification body in your country approved by the GlobalG.A.P., these can be found through GlobalG.A.P.'s website. 3) Carry out self-assessment following the relevant standard. 4) Certification body will send an inspector to verify compliance. 5) Once compliance is successful certification is awarded for a 1-year period.

Output and performance

The GlobalG.A.P. has clear outputs through its 16 farm-based standards (crops, livestock and aquaculture), which all include the same general clauses relevant to biodiversity governance[56]. Additionally, as it is a certification standards with appropriate third party verification, it is possible to gauge potential impacts by looking at what the standard covers together with the number of certifications awarded, the areas they cover and how long time they are maintained.

The standard for all farm based practices requires that the farmers have an action plan to enhance habitats and maintain biodiversity within the farm's area. Additionally, special attention should be paid to areas of environmental interest, and the plan should include knowledge on pest management, water supply and conservation sites. More steps are listed as recommended, but are not requisites to achieve certification.

In GlobalG.A.P's annual reports, measures are given regarding the coverage of the certification across the different sectors[57]. These are also compared across the previous five years enabling time-wise comparison. Regarding crop-certification the GlobalG.A.P. also specify where in the world they certify and how much they certify across regions.

In 2015, 160,452 producers worldwide were certified by the Global.G.A.P's Integrated Farm Assurance, an increase from 106,008 in 2010[58]. The covered area is approximately 3.2 million hectares. Europe is still the standard's key market, with 65.4% of the certified parties located here. South America has 11.7%, Africa 11.2%, Asia 9.3%, North America 1.4% and Oceania 0.9% of all the certified producers.

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55 GGAP 2016d: http://www.globalgap.org/uk_en/what-we-do/globalg.a.p.-certification/five-steps-to-get-certified/

56 GGAP 2016e: http://www.globalgap.org/export/sites/default/.content/.galleries/documents/160630_GG_IFA_CPCC_CC_V5_0-2_en.pdf

57 GGAP 2016f: http://www.globalgap.org/export/sites/default/.content/.galleries/documents/160923_Annual_Report_2015_en.pdf

58 Ibid. (pp. 24-27)

MRV

The GlobalG.A.P.'s MRV framework is of a very high standard. It includes clear and thorough guidelines and requirements for the different standards. It has strong monitoring and reporting elements as well as third party verification carried out by certifying bodies across the globe. A strong MRV is important to maintain legitimacy for a certification scheme such as the GlobalG.A.P. as potential impacts of certification are directly linked to ensuring that the certified actors adhere to the standards. Finally, GlobalG.A.P. publishes online all relevant documents and reports including clear explanations of governance structure, charters, continuous news briefs, standards and assessment matrices for all relevant sectors as well as annual progress reports.

Final remarks

Tey *et al*. (2016) find GlobalG.A.P. to be an exemplar standard. Looking at their MRV framework as well as the inclusive organisational structure there are not many improvements to be made. However, as noted by several authors such as Henson, Masakure, and Cranfield (2011) and Subervie and Vagneron (2013), there are some implications related to this same robust framework. These are mainly that compliance with the standards is costly due to extensive certification process. Both studies, conducted in separate regions, found that farmers and producers were willing to engage as long as they received financial support from donors or interested exporters. However, as soon as the funds stopped, the incentive to partake disappeared. Although, this is not an issue unique to GlobalG.A.P.'s certification, it is an issue deserving attention, for instance by providing clear structures for financial and technical support.

Additionally, even though GlobalG.A.P. provides a robust standard, the particular clauses regarding governance of biodiversity and related issues such as sustainable use or conservation of forest and species are limited. Also, the weighting of these clauses is either marked as "minor must" or "recommended"[59].

Finally looking at the 2016 Annual Report it is clear that that the GlobalG.A.P. mainly certify producers in Europe[60]. Whereas this is not per say a bad indicator for a standard, it does mean that areas of high significance to biodiversity (see e.g. Miller and Spoolman 2012, 243) are less in the scope of this particular certification scheme.

[59] GGAP 2016e: http://www.globalgap.org/export/sites/default/.content/.galleries/documents/160630_GG_IFA_CPCC_CC_V5_0-2_en.pdf

[60] GGAP 2016f: http://www.globalgap.org/export/sites/default/.content/.galleries/documents/160923_Annual_Report_2015_en.pdf

4.2.6 The Roundtable on Sustainable Biomaterials (RSB)

Start year	2007
Membership type	Hybrid: Public, CSO and firm actors have governing capacity.
Members	80
Website	http://rsb.org/
MRV	Full MRV framework in place and information reported publicly.
Output	Yes. Several certification standards.
Performance	Clear outcomes through implementation of certification. Biodiversity impacts are unclear.

Background and objective

Roundtable on Sustainable Biomaterials (RSB), previously known as Roundtable on Sustainable Biofuels, is a multi-stakeholder initiative aiming to:

"Provide and promote [a] global standard for socially, environmentally and economically sustainable production and conversion of biomass. Provide a global platform for multi-stakeholder dialogue and consensus building. Ensure that users and producers have access to credible, practical and affordable certification.[61]"

The institution was founded in 2007 and has since then attracted attention as a high-profile standard (Fortin 2013). It is not merely employed in its own right, but further used by for instance the EU as the standard of choice to ensure producers' compliance with the EU's Renewable Energy Directive (Fortin 2013). Next to RSB's main global standard, several certification standards, e.g. for non-energy producers and for smallholder certification, are in place. This analysis focus primarily on the RSB's global standard as the others are additions to or modifications hereof.

Biodiversity governance

Membership and participation

RSB is a multi-stakeholder certification scheme meaning that all its members have governing capacity through access to the Assembly of Delegates. Members are divided into seven chambers: 1) Biomass producers, 2) Biofuel and biomaterial producers, 3) Retailers, user and investors, 4) Trade unions and rights-based NGOs, 5) Social development NGOs, 6) Environmental NGOs and 7) Government and research[62]. Each of these chambers are represented in the Assembly of Delegates who is in charge of appointing the board of directors, approving standards as well as other administrative tasks[63]. Additionally, the RSB includes stakeholders from all these groups in the design process of its standards and certification procedures.

Participation to RSB is open to any organisation whose work or production is relevant to the production or use of biomaterials[64].

[61] RSB 2016a: http://rsb.org/about/vision-mission/
[62] RSB 2016f: http://rsb.org/about/governance/
[63] RSB 2016e: http://www.rsb.org/pdfs/documents_and_resources/PandCs%20Brochure.pdf
[64] RSB 2016b: http://rsb.org/pdfs/documents_and_resources/RSB%20Certification%20Guide.pdf

Mode of operation

The RSB certification is founded around twelve principles/focal points: Legality, Planning and monitoring, Greenhouse gas emissions, Human and labour rights, Rural and social development, Local food security, Conservation, Soil, Water, Air quality, Technology inputs and waste as well as Land rights[65].

To be certified RSB an operator follows a three-step procedure. First, the operator decides what type of standard to apply for, and send in an application though an online application portal. In this step, the costs of certification are also determined using a free calculation tool. The price varies largely depend on type and size of operation. For small agricultural producers (<150ha) the price is only $50, whereas for large farms (>1000ha) it can be as much as $2,000 depending on production type. For industrial companies, prices can reach up against $20,000[66]. Step two is audit preparation. Two certification bodies have been approved by Accreditation Services International (ASI) to certify the RSB standard. Once one of these have been ordered the operator has to prepare for the audit by showing adherence to the relevant RSB standard. To aid in this process, the RSB provides several online tools as well as a special advisory service[67]. Finally, in step three, the auditor will review the filed information and arrange field trips to a selected sample of the operator's locations to verify its validity. If major issues are identified, these have to be solved before certification can be awarded. In case of minor issues, they simply have to be solved before the next audit. Depending on an operator's risk rating audits have to be conducted annually or biennially[68].

In addition to the general standards operation, the RSB launched a Smallholder Program in 2013. The program tries to tackle issues commonly faced by smallholder farmers such as limited access to technology, limited market access, high certification costs and inadequate social and financial incentive to participate in certification schemes[69].

Output and performance

By developing and implementing several standards and programs the RSB has clear outputs relevant to biodiversity. Looking at some of RSB's twelve principles it is possible to assess what kind of outcomes and potential future impacts RSB certified products have in relation to biodiversity governance. Of largest direct relevance is the principle of conservation[70]. Other principles have indirect relevance such as water, land rights and GHG emission. The principle of conservation, the only one addressed further, broadly entails that:

a. Operators shall identify conservation values on the certified land and that they always prioritise areas of lowest values in their production.

b. Ecosystem functions directly affected by the operator shall be maintained or enhanced.

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65 RSB 2016e: http://www.rsb.org/pdfs/documents_and_resources/PandCs%20Brochure.pdf

66 RSB 2016b: http://rsb.org/pdfs/documents_and_resources/RSB%20Certification%20Guide.pdf

67 RSB 2016d: http://rsb.org/certification/apply-for-certification/step-2-preparation-for-audit/

68 RSB 2016c: http://www.rsb.org/pdfs/documents_and_resources/RSB%20Certification%20Guide.pdf

69 RSB 2016g: http://rsb.org/activities-and-projects/smallholder-program/

70 RSB 2016e: http://www.rsb.org/pdfs/documents_and_resources/PandCs%20Brochure.pdf (pp. 54-65)

c. Operations shall protect, restore or create buffer zones.

d. Ecological corridors have to be protected, restored or created to minimise habitat fragmentation.

e. Invasive species shall be prevented from entering operation sites.

It is possible to assume that these activities are upheld for operational areas that have been certified. However, without detailed knowledge of the areas size, location, fauna, etc. it is impossible to give more specialised account of RSB's outcomes in relation to direct biodiversity conservation.

RSB's impact/output report published in 2015 contains transparent objective and achievements over the two-year period 2012-2014[71]. By the end of 2014 RSB had certified 17 companies representing 23 operations across 14 countries. Their target was to reach an uptake of 30 operators. The only number available on area covered by the RSB standard is for feedstock production, which covered just over 20 thousand hectares by the end of 2014. RSB reports that, looking at the land covered by its standard, it can be extrapolated that a similar amount of land adheres to the above-mentioned conservation standards[72]. Finally, approximately 390Gt RSB certified biofuels were produced in the two-year period. It is not informed what this is equivalent to in terms of area covered.

MRV

RSB has a state of the art MRV framework in place. In fact, it has several. On the base-level, third party certifying bodies are employed, regularly ensuring that participants adhere to the RSB's standards. On the level above is the ISA verifying that the certifying bodies do their job correctly. Finally, the RSB is a full member of the ISEAL Alliance, which essentially serves as a meta-governance body for standards who seeks to ensure accountability, transparency, effectiveness and credibility of standards world-wide (Paiement 2016). In this way ISEAL adds to the legitimacy of standards and certification schemes (Loconto and Fouilleux 2014).

Additionally, RSB releases bimonthly newsletters with updates on upcoming events, new projects and the progress within the organisation[73]. Finally, RSB publishes an annual Monitoring and evaluations (M&E) reports, providing general trends in terms of their global performances[74].

Final remarks

Authors such as Subervie and Vagneron (2013) and Ruysschaert and Salles (2014) have identified several shortcomings pertaining to certification systems like the RSB. These include lacking financial compensation, too large room for interpretation, lack of effective external control and a failure to integrate the standards properly into national socio-politico-legal frameworks. Looking at the RSB in compared to these common issues one will notice that the standard is doing very well.

First, RSB has a clear system in place to alleviate issues regarding financial compensation to less wealthy participants, particularly smallholder farmers. A program

[71] RSB 2016i: http://rsb.org/pdfs/M&E/15-03-11%20RSB%20Outcome%20Evaluation%20Report.pdf

[72] Ibid. (pp. 8)

[73] RSB 2016h: http://rsb.org/news-and-publications/rsb-newsletters/

[74] RSB 2016i: http://rsb.org/pdfs/M&E/15-03-11%20RSB%20Outcome%20Evaluation%20Report.pdf

that simultaneously seek to increase their incentive to join the certification as well as aid them technologically. Looking at the RSB's M&E report one can see that, despite the Smallholder Program, the level of smallholder implementation still not as high as the organisation aimed at. However, the RSB is working on improving this further.

In terms on interpretation of the standard two things deserve attention. Firstly, the RSB have a state of the art verification system in place to ensure adequate compliance with the standards. Secondly, the RSB standards are very clear and easy to follow and all include with several minimum requirements that operators need to follow. Additionally, to achieve RSB certification, as opposed to other certification schemes, all criteria have to be upheld (Fortin and Richardson 2013). Although it is not possible to gauge exactly how much the operators do in case they exceed the minimum standard requirements, the standard provides a strong conservative estimate of what the standard entails in terms of potential impact across the twelve principle areas.

Due to the low level of implementation in the period for which the RSB has assessed its outcomes, it is difficult to provide more detailed information regarding the organisation's performance to biodiversity governance. However, in terms of transparency, MRV as well as the institution's efforts to promote its standard to both large and small operators, the RSB can be considered a front-runner in its field. Also, considering their main objective stated above, they are doing well towards achieving their goals. This is likely also why international organisations such as the IUCN, governmental institutions such as the EC and NGOs like WWF recognise the RSB as the most comprehensive and ambitious standards and certification scheme in the field[75] (Fortin 2013).

[75] WWF 2016: http://wwf.panda.org/what_we_do/how_we_work/our_global_goals/markets/mti_solutions/certification/agriculture/biofuels/
IUCN 2011: https://www.iucn.org/content/joint-statement-recognition-roundtable-sustainable-biofuels-certification-system-european

4.2.7 Sustainable Agriculture Initiative Platform (SAI)

Start year	2010
Membership type	Private: Only firm actors have governing capacity.
Members	75
Website	http://www.saiplatform.org/about-us/who-we-are
MRV	Monitoring and reporting in place. Several reports are publicly available. No verification procedure.
Output	Yes. Developed and publicised several protocols for sustainable management.
Performance	Clear outcomes, several members have adopted reporting procedures. No clear biodiversity impacts.

Background and objective

The Sustainable Agriculture Initiative Platform (SAI) is a voluntary private initiative founded by Nestlé, Unilever and Danone in 2002 as a mean to share knowledge and best practices regarding sustainable agriculture across the food value chain[76]. The platforms definition of sustainable agriculture is:

"The efficient production of safe, high quality agricultural products, in a way that protects and improves the natural environment, the social and economic conditions of farmers, their employees and local communities, and safeguards the health and welfare of all farmed species."[77]

The environmental segment of SAI's sustainability definition focus on soil fertility, water, energy and biodiversity[78].

Biodiversity governance

Membership and participation

SAI's is made up of 75 active members, all companies from the food industry. Every two years a new executive committee is elected during the General Assembly. An advisory council, made up of six representatives from NGOs, farmers organisations and research institutes, is in place to provide critical advice on developments related to sustainable agriculture[79]. Finally, the working groups in individual segments are made up of members to whom the covered issues are relevant. Implementation of best practices and protocols on the farm level work partly through Farmer Self-Assessment, developed in 2014, and partly through ongoing projects initiated by SAI[80]. It is the responsibility of the SAI members to communicate such practices to the farmers in their supply chains, but it is unclear how this is done.

[76] 2016a: http://www.saiplatform.org/about-us/who-we-are
[77] SAI 2016b: http://www.saiplatform.org/sustainable-agriculture/definition
[78] Ibid.
[79] SAI 2016e: http://www.saiplatform.org/about-us/governance-3/regulatory-documents/statutes
[80] SAI 2016h: http://www.saiplatform.org/pressroom/108/46/SAI-Platform-launches-world-s-first-industry-aligned-Farmer-Self-Assessment-for-sustainable-agriculture

Mode of operation

SAI activities are focussed on two main areas, to 1) build capacity of sustainable agriculture and 2) communicate about sustainable agriculture. The former includes the development of principles, tools and best practices through research, testing these in pilot schemes across the globe and developing a Sustainability Performance Assessment tool. The second aspect involve communicating findings and results to the public, hold annual conferences and providing different training programs[81].

Development of best practices and activities are divided across five segments: Beef, dairy, arable and vegetable crops, coffee and fruit. For all working areas, except beef, sets of principles and best practices have been developed. Of highest relevance to biodiversity are the practices and principles developed in regards to crops, fruit and coffee[82]. Additionally, the SAI has working groups in charge of the different segments, assigned to help farmers use tools and implement practices as well as organise and run projects.

Aside from these working areas, the SAI has set up a committee focusing entirely on biodiversity and ecosystem services. This committee helps participants find answers to biodiversity related questions, e.g. how to identify and evaluate risks, how to manage or mitigate risks and what companies are expected to do[83].

In 2015 SAI implemented a Farm Sustainability Assessment (FSA) Committee responsible for steering activities related to FSA, including creating benchmark-methodologies, approving benchmarking of standards, engaging with standard owners as well as verification and integrity[84].

Output and performance

SAI is an active and informative platform. Looking at the 2015 annual report in light of the two targets related to knowledge creation and dissemination, the platform has produced relevant outputs[85]. It has researched, developed and published clear protocols and best practices for four out of five key issues areas, all containing clear recommendations related to sustainable management and biodiversity.

Furthermore, SAI is continuously trying to improve its facilities and activities to better help members implement practices and standards across their supply chains. This is for instance done through conducting workshops related to communication between the food companies and the farmers that supply them.

As a proxy of SAI's success rate in disseminating their best practices, 76% of their members have developed a strategy for sustainable sourcing of agricultural raw materials. 44% have set specific targets for some or all of the agricultural products they source and 75% of these have made their targets public[86].

These targets and standards are seemingly translated to the farm level through self-assessment, but it is unclear how exactly this works and to what extent. However, one

[81] SAI 2016c: http://www.saiplatform.org/about-us/what-we-do
[82] SAI 2016d: http://www.saiplatform.org/uploads/Modules/Library/pps-arable-vegetable-crops-2009.pdf
[83] SAI 2016i: http://www.saiplatform.org/activities/committees
[84] Ibid.
[85] SAI 2016g: http://www.saiplatform.org/uploads/Modules/Library/sai_platform-ar2015_final-version10-small.pdf
[86] SAI 2016g: http://www.saiplatform.org/uploads/Modules/Library/sai_platform-ar2015_final-version10-small.pdf.

of the current goals of the SAI is to improve the communicative link between the food industry and the farmers[87].

MRV

One of the roles of the advisory board is to evaluate the work and progress of the platform. Additionally, members are encouraged, but not required, to report annually on their activities related to developing sustainable agriculture practices[88]. Finally, annual reports are published to inform on new actions as well as the general development of the platform. An online library provide access to information on all protocols, principles, projects, news and relevant academic research.

The only mention of verification is that assistance with such falls under the FSA committee. There are no indications that verification is a mandatory part of SAI activities. Rather, it is an option available to members if they wish to implement it using external standards.

Final remarks

Despite the clear goals and development of thorough best practices and protocols, improvements can be made to increase the robustness of the SAI institution, particularly related to the implementation of best practices and protocols. Aside from the advisory committee the institution is made up solely of companies from the food industry. This runs the risk of losing touch with the farm level. Looking at comments in the 2015 Annual Report this is currently an issue within the SAI membership. However, this is also something that the institution is working to improve, for instance through the development of the FSA committee in 2015 as well as by conducting workshops bringing together farmers and companies[89].

In terms of reporting their progress, as well as hurdles, SAI is doing good and the level of transparency is seemingly high. They provide running updates on activities and reports and information regarding the internal and external workings of the platform are publicly available. SAI could further improve its information provision regarding where and to what extent their standards are being implemented and whether the farmers' self-assessments are carried out successful. One option is to implement a verification framework on the farm level to ensure that best practices are implemented and upheld. Another, less costly, way is to provide more detailed reports on the exact practices, strategies and standards implemented by the SAI members, alongside information on where such implementations are taking place.

87 Ibid.

88 SAI 2016f: http://www.saiplatform.org/about-us/governance-3/regulatory-documents/code-of-conduct

89 Ibid.

4.2.8 World Business Council on Sustainable Development (WBCSD)

Start year	1995
Membership type	Private: Only firm actors have governing capacity.
Members	186
Website	http://www.wbcsd.org/home.aspx
MRV	Monitoring and reporting of activities in place and made public. No verification procedure.
Output	Yes. Several projects and targets in place.
Performance	Outcomes related to reporting and projects. Biodiversity impacts are unclear.

Background and objective

WBCSD is a member organisation consisting of more than 200 businesses worldwide. Its overarching aim is to "accelerate the transition to a sustainable world by making more sustainable businesses more successful"[90]. Its members represent 19 million employees and over $8 trillion in combined revenues. Additionally, WBCSD has a broad reach through its global network of more than 70 business councils, representing some 5000 businesses[91]. Within the organisation and its network, the WBCSD focus across four economic areas: Energy, Food and Land-use, Cities and Mobility and Redefining Values.

WBCSD recognise that the loss of natural habitats, ecosystem services and biodiversity constitute a risk both to the planet and to successful business. In terms of biodiversity governance, one of the organisation's aims is "to provide meaningful and relevant contributions to the Convention on Biological Diversity's Aichi Biodiversity Targets and the associated Sustainable Development Goals"[92]. Some business-related goals relevant to biodiversity governance include: 1) increasing business awareness, 2) clarifying what can be done to manage and mitigate risks, 3) developing simple but sound tools and methodologies across different sectors, and 4) providing guidance, simple metrics and indicators to help assess businesses impacts at specific sites and across their supply chain[93].

Biodiversity governance

Membership and participation

WBCSD is led by an executive committee elected from its member base every two years[94]. The members consist of company CEOs or senior board members. Aside from access to the executive committee, all members are represented in the Council and all have the option to join or lead cluster Boards. Aside from the direct implication of council members, the WBCSD's global network reaches many thousand businesses across the world, two thirds of which resides in developing economies[95].

[90] WBCSD 2016a: http://www.wbcsd.org/Overview/About-us
[91] WBCSD 2016b: http://www.wbcsd.org/Overview/Global-Network
[92] WBCSD 2016c: http://www.wbcsd.org/Clusters/Ecosystems-Landscape-Management/Biodiversity-Measurement-Valuation-and-Reporting
[93] Ibid.
[94] WBCSD 2016e: http://old.wbcsd.org/about/organisation.aspx
[95] Ibid.

Mode of operation

As a network organisation, the WBCSD primarily relies on its members to take action and to encourage other businesses to follow. However, the organisation also provides a platform to facilitate and support companies with initiatives and projects.

The WBCSD's work is divided across six action clusters as well as several larger projects related to the four economic areas. The cluster "Ecosystems & Landscape Management" as well as the projects "Forest Solutions Group", "Non-financial Measurement and Valuation" and "Reporting" are the operational structures most significant to biodiversity governance[96].

Networking, facilitation, knowledge creation and dissemination are the main tools used by the WBCSD to help businesses become more sustainable in their conduct. The Council seek to create a critical mass of leading companies to realise cross cutting sustainable development in order to rethink and reconstruct the way business is done (WBCSD, 2016d). WBCSD aim to help develop and scale up state of the art sustainable business solutions across different companies and sectors[97].

Output and performance

The WBCSD network is very prolific in creating outputs by setting, and continuously increasing, targets, implementing and supporting projects, as well as reporting on all the projects conducted by their member base. This is illustrated for instance by the ambitious "Vision 2050 Initiative", initiated in 2010 by 29 member companies (Wilkinson and Mangalagiu 2012). This institution has received quite some praise from companies in that it has provided a set of clear areas for action, concrete visions to aim towards, good management tools as well as managed to apply concrete and pragmatic business solutions (Wilkinson and Mangalagiu 2012, 379–80).

Improving companies' financial and non-financial reporting, relevant to all the economic areas covered in the organisation's portfolio, is one of the WBCSD main targets and also part of its outcomes. In the 2016 "Reporting matters" report, the organisation informs how 76% of members have improved their reporting practices since 2013. 28% have combined financial and non-financial reporting and more than 50 companies are actively communicating on their progress related to the SDGs in their reports[98]. Additionally, 48% of reports were titled sustainability reports and 80% employed the GRI G4 guidelines.

Other outputs relevant to biodiversity include several reports published since 2010 related to how businesses can better measure, value, help and integrate biodiversity into their business plans. These are primarily written published by the WBCSD while some are made in collaboration with renowned institutions such as the IUCN[99]. These reports include examples of what businesses have done, including best practices, as well as what they can do moving forward. Finally, they provide a lot of knowledge and tools that the companies can use to improve their management and impacts on biodiversity.

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[96] WBCSD 2016c: http://www.wbcsd.org/Clusters/Ecosystems-Landscape-Management/Biodiversity-Measurement-Valuation-and-Reporting

[97] WBCSD 2016e: http://old.wbcsd.org/about/organisation.aspx

[98] WBCSD 2016f: http://www.wbcsd.org/Projects/Reporting/Resources/Reporting-Matters-2016

[99] WBCSD 2016g: http://www.wbcsd.org/Clusters/Ecosystems-Landscape-Management/Resources/Effective-biodiversity-ecosystem-policyregulation-Business-input-COP10-convention-on-biological-diversity

MRV

Although the WBCSD does not have a formal MRV framework in place, the organisation constantly assesses and reports on members' progress in relation to the organisation's overarching goals. These reports include summaries from Council meetings, collective annual assessment reports as well as reports on individual projects conducted by one or more of the WBCSD's members[100]. Additionally, the WBCSD regularly publish reports on accumulated information and knowledge as well as best practices developed through research and collaboration within the network.

Final remarks

Given the way WBCSD operates, it is difficult to exact which outcomes relevant to biodiversity are attributable to its actions. However, considering the goals formulated by the WBCSD as well as the performances described above, it seems clear that the organisation is doing a good job to include companies into its network, to provide information on what needs improvements as well as to develop tools for taking action. Looking at Wilkinson and Mangalagiu's (2012) study of companies' perception of the Vision 2050 Initiative, this picture is confirmed. They consistently report WBCSD has been successful in communicating how companies can have an impact, explaining what the issues are that they are facing, teaching and providing tools for better management of said issues, as well as in encouraging collaborative action across sectors.

WBCSD could make small improvements, for instance by implementing a formal MRV framework to better assess its overarching performance across the four economic areas. Still, the WBCSD does stand out as a very strong example of a successful network, inducing meaningful collaborative voluntary action across several issues areas including biodiversity.

[100] WBCSD 2016h: http://www.wbcsd.org/Overview/Resources

5 Final remarks

The institutional landscape for governing biodiversity has expanded beyond the Convention on Biological Diversity. Increasingly, institutions created to govern issue areas such as agriculture, climate change, fishery and forestry, influence biodiversity directly and indirectly. We refer to this emerging institutional structure as the institutional landscape on governing for biodiversity. This report maps and visualises the structure of the landscape. It explores functions and types of institutions that constitute the institutional landscape, in particular the role of Monitoring, Verification and Report. Starting with a sample of 385 institutions governing climate change, agriculture, fisheries and forests, we have identified a sub-set of 108 institutions occupying the institutional landscape on governing for biodiversity. The selection method has followed a conservative approach only considering institutions who clearly state a purpose to govern biodiversity. Consequently, institutions that indirectly govern biodiversity have been excluded. It is thus likely that the universe of institution in the institutional landscape on governing for biodiversity is larger than concluded in this report.

5.1 Methodological contribution

A key output of this report is a generalizable methodology for visualising a governance landscape. While the concept of institutional complexity is not new in itself, there are few mappings of institutional landscapes in global governance. The methodology we suggest, based on key-word analysis, certainly has some caveats. However, it can in principle be applied to any given issue area to map the institutional landscape on governing for biodiversity, a useful feature for both practitioners, policy makers and researchers. There are some risks of using key-words as a selection tool, including overlooking important words and that institutions do not phrase their actions using expected words. To minimise these risks, we collaborated with biodiversity experts who ensured all relevant keywords were included in our selection process and who subsequently went through all the institutions that were not selected to check if any had been overlooked. A fundamental strength of using key-word analysis is its potential for easily replication. In addition to the selection process, we present a carefully selected range of graphs and visualisation tools, useful to depicting the governance architecture of any issue area in a nuanced and extensive manner.

5.2 Visualising the institutional landscape on governing for biodiversity

The dataset in this report comprises 108 public, private and hybrid institutions, operating in different ways and consisting of different actor constellations. Mapping and analysing the institutional landscape in terms of institutional types and functions we use the governance triangle (see Figure 8). The report reaches five main conclusions: 1) It is clear that we have moved from a reliance on public governance-institutions towards more diverse multi-stakeholder participation. 2) There is still a dominance of institutions where only public actors are engaged as compared to those where only CSO and firm actors govern. 3) There is a strong prominence of hybrid institutions where all three actor-groups are involved. Dual-actor collaboration is strongest for public-CSO and CSO-firm. Only one institution has firm actors and public actors collaborating. 4) The decagon clearly shows that standards

and commitments, followed by information and networking, are the preferred forms of governance. This is may be due to a sample bias toward multilateral agreements and conventions that are coded as standards and commitments. 5) Through dividing institutions into clusters, we have clearly shown that conservation is the preferred approach to biodiversity governance, followed by a significant appliance of promoting sustainable use and finally only very little apparent focus on access and benefit sharing.

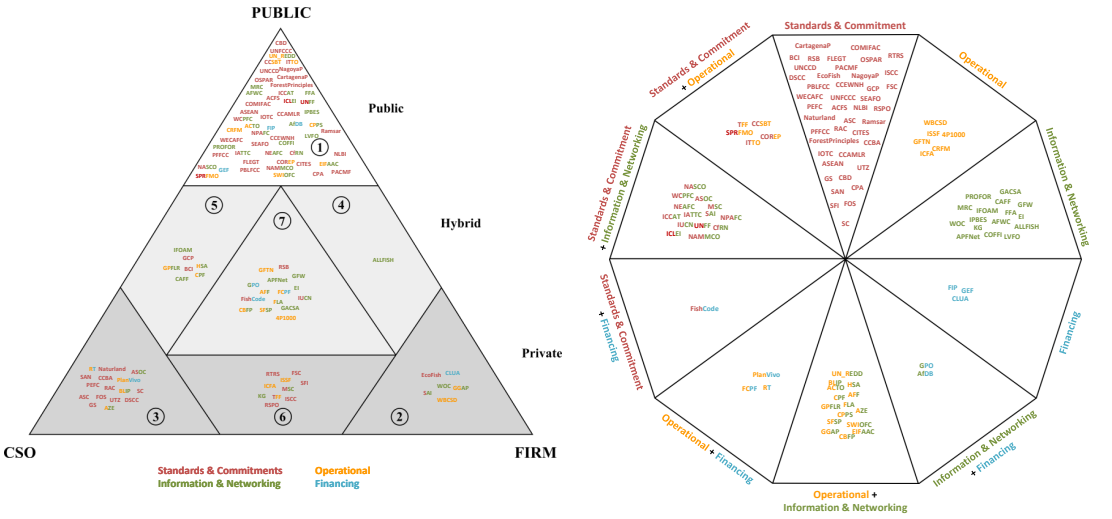

Figure 10 Governance triangle and decagon including all 108 institutions in the dataset.

5.3 Participants/members

The institutional landscape engages a combination of participants, partners and members, both the public and private. Understanding who is involved in the institutions is important to assess political agency in the governance architecture. In our analysis, we only consider members as the actors that have governing capacity within a given institution. By applying this selection criteria, we ensure that only the actors who are actively engaging with biodiversity governance are include in our results.

Across the 108 institutions in the landscape on governing for biodiversity there are a total of 12796 members and 9641 unique members. The vast majority of these members are engaged in institutions from the private and hybrid zones 5, 6 and 7, both when considering the total and the unique counts. This is a significant finding, which suggests that although the institutional landscape comprises a majority of public led institutions, there are in fact more actors and more agency involved in private and multi-stakeholder governance. Considering that the members included across the institutions include nation states, hundreds of cities and regions, large IOs as well as prominent international NGOs and firms, the institutional landscape on governing for biodiversity constitutes a significant amount political and practical agency.

5.4 Monitoring, reporting and verification

Monitoring, reporting and verification (MRV) is important to assess the extent to which checks and balances are in place ensuring that institutions actually do what they

proclaim to do. In addition, assessing MRV can help indicate the degree of institutionalisation of governance institutions. We present results of an MRV analysis, carried out on the transnational segment of the institutional landscape on governing for biodiversity, which revealed a larger degree of transparency and accountability than expected. Of the 55 institutions, only 7 did not have any form of monitoring or evaluation in place. A vast majority, not only carried out monitoring, but also reported this to the public through online data repositories, newsletters, annual reports and other updates. Most surprisingly was the degree to which third party verification is being employed. Although, more than half do not use verification measures, we posit that such procedures are of varying importance depending on the type of institution. For instance, when implementing standards and commitments, verification is more instrumental to the whole procedure than it is for a knowledge dissemination network. Therefore, it is positive to note that 90% of the transnational standard and commitment institutions have verification procedures in place. In summary, our results indicate that the level of transparency and thereby accountability is high for the transnational institutions in the institutional landscape. It would be interesting to examine how the institutions MRV frameworks have developed over time, but such data is not available.

5.5 A closer look at eight cases

Eight case studies of institutions in the institutional landscape on governing for biodiversity illustrate a more detailed image of how the different types of institutions function, what type of actors they work with, how they are structured as well as how they perform and whether their outcomes are relevant to biodiversity. The eight institutions span wide in terms of how they approach biodiversity governance. For some institutions, such as the certification schemes GGAP and RSB the link to biodiversity is straight-forward and established than for others, e.g. the learning network GPFLR. This, however, does not mean that GPFLR's activities are any less relevant or valuable for biodiversity than RSB's, but merely that they are more difficult to assess empirically. It is not possible to link any of the institutions' actions to concrete and direct impacts on biodiversity. However, they all show outputs relevant to governing biodiversity, and half perform well in terms of verifiable biodiversity-relevant outcomes. In addition, it is positive to discover that most of the institutions are very inclusive in the way they operate, both in terms of their organisational structure and the types of actors involved in the governance mechanisms, and in terms of the stakeholders with which they collaborate.

Our results suggest the following:

5. Biodiversity governance has changed from being predominantly carried out by public actors towards increasing multi-stakeholder participation. As of December, 2016, 9641 unique public and private actors are actively engaging with biodiversity governance.
6. Although roughly half of the institutions are purely public, private members including civil society organisations, companies and investors, make up roughly two thirds of the active members involved with biodiversity governance.
7. Besides hybrid institutions (those engaging all types of actors: Public, private and CSO), joint governance is most frequently public-CSO and CSO-firm.
8. Certain functional types (what we refer to as roles) stand out as the preferred way for institutions to achieve their biodiversity governance objectives. *Standards and commitments* is most commonly applied followed by *information and networking*.

9. Biodiversity governing institutions most frequently frame their activities under the scope of *conservation* (81%) followed by a significant proportion promoting *sustainable use* (35%), whereas only few accentuate *access and benefit sharing* (5%).
10. Considering MRV, 45 (82%) of the 55 transnational institutions implement at least monitoring, 42 (76%) also publish reports and 21 (47%) also verify their actions through third party verification procedures.
11. Verification is used mainly in the institutions where it is essential to the mode of operation. 17 (85%) of the 20 institutions enforcing standards and certification have full MRV frameworks in place.

The institutional landscape on governing for biodiversity is characterised by a multitude of actors and institutions occupied with governing biodiversity through different issue areas. In this report, we have shown a range of results that visualise and highlight aspects of how the governance architecture is composed. Biodiversity is mainly governed through institutions concerned with issues related to forestry and fishery. Additionally, we found that biodiversity governance has certainly moved from being governed primarily by public institutions towards a much more inclusive structure where private actors have gained relevant agency. Although our results do not tell the full story, they provide a robust foundation relevant to practitioners, policymakers and scholars interested in further assessing the institutions and the actions taken in the name of governing biodiversity. Finally, the method applied in this report provide a valuable contribution, applicable to analysing the full extent of global governance pertaining to any given issue area. Considering how much of biodiversity governance is carried out through institutions that are not primarily focused on biodiversity, it begs the question whether this is similarly the case for issues such as climate change, energy or agriculture. Without understanding this degree of 'hidden' governance, it is difficult to assess the full potential and agency in any given issue area. Therefore, similar studies could widen the perspective of the increasingly fragmented and intertwined array of institutions in global environmental governance. An important next step would be to analyse the governance architecture for synergies and conflicts between the institutions.

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Annex A Keywords

A.1 Keywords for identifying institutions in the landscape on governing for biodiversity

Biodiversity keywords	Alternative i	Alternative ii
Strong indicators:		
Biodiversity conservation	Conservation of biodiversity	Conservation of biological diversity
Biological diversity	Biodivers*	
Convention on Biological Diversity	CBD	
Ecosystem service*		
Protected area		
Other keywords:		
Access and benefit sharing		
Aichi		
Area-based conservation		
Benefit-sharing	Benefit sharing	Sharing of benefits
Biodiversity protection		
Biodiversity stewardship		
Biological resources		
Conserv*		
Conservation agriculture		
Conservation status		
Critical ecosystems		
Degraded ecosystems (ecosystem degradation)		
Earth stewardship		
Ecological limits		
Ecological stewardship		
Economics of ecosystems		
Ecosystem		
Ecosystem change		
Ecosystem function*		
Ecosystem resilience		
Ecosystem restoration		
Equitably managed	Equitable management	Manage equitably
Fair and equitable sharing of (the) benefits		
Forest protection		
Genetic diversity	Diversity of genes	
Genetic erosion		
Genetic resources		
Global Biodiversity Outlook		
Habitat restoration		
Invasive species	Alien species	
Mainstream*		
Nagoya Protocol		
Natural capital		

Biodiversity keywords	Alternative i	Alternative ii
Natural habitat*		
Nature based solutions		
Nature protection		
Payment for ecosystem services	PES	
Precautionary approach		
Recovery plan*		
Safeguard*		
Species-recovery	Recovery of species	
Stewardship		
Sustainable management	Manage sustainably	
Sustainable use	Use sustainably	
Threatened species		
Vulnerable ecosystems		

A.2 Keywords for defining biodiversity clusters

Conservation	Sustainable use	Access and benefit sharing
Conserv*	Sustainable Use	Benefit Sharing
Preserv*	Sustainable Management	Benefit-Sharing
Protect*	Use Sustainably	Sharing of benefits
Habitat*	Manage Sustainably	Equitable Management
NA	Stewardship	Manage Equitably
NA	Economic Sustainability	Fair distribution
NA	Economically sustainable	Distribute Fairly
NA	NA	Genetic Resource

Annex B Database

Table 5 Our database of institutions in the institutional landscape on governing for biodiversity (see section 3.1 as well as Widerberg, Pattberg and Kristensen (2016) for the collection methods).

Zone	Acronym	Name	Origin	Year	Members	Actors	Type	Role	Conservation cluster	Sustainable use cluster	Website
1	ACFS	Agreement on cooperation in the forestry sector and forestry	Forest	1998	8	Public	Public	1	1	0	http://2009.pravoby.info/docum09/part29/akt29522.htm
1	ACTO	Amazon Cooperation Treaty Organisation	Forest	1995	8	Public	Public	6	1	1	http://otca.info/portal/index.php?p=index
1	AfDB	African Development Bank	Energy	1964	54	Public	Public	7	1	1	http://www.afdb.org/en/
1	AFWC	FAO African Forestry and Wildlife Commission	Forest	1959	49	Public	Public	3	1	0	http://www.fao.org/unfao/govbodies/gsb-subject-matter/gsb-forestry/detail/en/c/113/
1	ASEAN	ASEAN Agreement On The Conservation Of Nature And Natural Resources	Forest	1985	6	Public	Public	1	1	1	https://cil.nus.edu.sg/rp/pdf/1985%20Agreement%20on%20the%20Conservation%20of%20Nature%20and%20Natural%20Resources-pdf.pdf
1	CartagenaP	Cartagena Protocol on Biosafety to the Convention On Biological Diversity	Forest	2000	170	Public	Public	1	1	1	https://www.cbd.int/doc/legal/cartagena-protocol-en.pdf
1	CBD	Convention On Biological Diversity	Forest	1992	196	Public	Public	1	1	1	http://www.cbd.int/
1	CCAMLR	Commission for the Conservation of Antarctic Marine Living Resources	Fish	1982	24	Public	Public	1	1	0	https://www.ccamlr.org/en/organisation/about-ccamlr
1	CCEWNH	Convention On The Conservation Of European Wildlife And Natural Habitats	Forest	1979	51	Public	Public	1	1	0	http://www.coe.int/t/dg4/cultureheritage/nature/bern/default_en.asp
1	CCSBT	Commission for the Conservation of Southern Bluefin Tuna	Fish	1994	3	Public	Public	5	1	0	https://www.ccsbt.org/en/content/home

Zone	Acronym	Name	Origin	Year	Members	Actors	Type	Role	Conservation cluster	Sustainable use cluster	Website
1	CfRN	Coalition for Rainforest Nations	Forest	2005	52	Public	Public	8	1	1	http://www.rainforestcoalition.org/nations.aspx
1	CITES	Convention On International Trade In Endangered Species Of Wild Fauna And Flora	Forest	1973	51	Public	Public	1	1	0	http://www.cites.org/
1	COFFI	UNECE Committee on Forests and the Forest Industry	Forest	1947	2	Public	Public	3	1	1	http://www.unece.org/forests.html
1	COMIFAC	Central African Commission	Forest	1995	10	Public	Public	1	1	1	http://www.comifac.org/
1	COREP	Regional Fisheries Committee for the Gulf of Guinea	Fish	1984	5	Public	Public	5	1	0	http://www.fao.org/fishery/rfb/corep/en
1	CPA	Convention Concerning The Protection Of The Alps	Forest	1991	9	Public	Public	1	1	0	http://www.alpconv.org/en/convention/framework/default.html
1	CPPS	Permanent Commission for the South Pacific	Fish	1952	4	Public	Public	6	1	1	http://cpps-int.org/
1	CRFM	Caribbean Regional Fisheries Mechanism	Fish	2003	17	Public	Public	2	1	1	http://www.crfm.net/
1	EIFAAC	European Inland Fisheries and Aquaculture Advisory Commission	Fish	1957	34	Public	Public	6	1	0	http://www.fao.org/fishery/rfb/eifaac/en
1	FFA	Pacific Islands Forum Fisheries Agency	Fish	1979	17	Public	Public	3	0	1	http://www.ffa.int/
1	FIP	Forest Investment Program	Forest	2008	23	Public	Public	4	1	0	https://www.climateinvestmentfunds.org/cif/node/5
1	FLEGT	EU Forest Law Enforcement, Governance_and Trade Action Plan	Forest	2003	1	Public	State	1	0	0	http://www.euflegt.efi.int/flegt-action-plan

Zone	Acronym	Name	Origin	Year	Members	Actors	Type	Role	Conservation cluster	Sustainable use cluster	Website
1	ForestPrinciples	Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests	Forest	1992	158	Public	Public	1	1	1	http://www.un.org/documents/ga/conf151/aconf15126-3annex3.htm
1	GEF	Global Environment Facility	Energy	1991	166	Public	Public	4	1	1	https://www.thegef.org/gef/
1	IATTC	Inter-American Tropical Tuna Commission	Fish	1950	21	Public	Public	8	1	0	http://www.iattc.org/
1	ICCAT	International Commission For The Conservation Of Atlantic Tunas	Fish	1969	50	Public	Public	8	1	0	http://www.iccat.int/en/
1	ICLEI	ICLEI - Local Governments for Sustainability	Climate	1990	1156	Public	Public	8	0	0	http://www.iclei.org/
1	IOTC	Indian Ocean Tuna Commission	Fish	1996	14	Public	Public	1	1	0	http://www.iotc.org/English/index.php
1	IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services	Forest	2012	125	Public	Public	3	1	1	http://www.ipbes.net/
1	ITTO	International Tropical Timber Organisation	Forest	1986	71	Public	Public	5	1	1	http://www.itto.int/
1	LVFO	Lake Victoria Fisheries Organisation	Fish	1994	5	Public	Public	3	0	1	http://www.lvfo.org/
1	MRC	Mekong River Commission	Fish	1995	4	Public	Public	3	1	0	http://www.mrcmekong.org/
1	NagoyaP	Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity	Forest	2010	87	Public	Public	1	1	1	https://www.cbd.int/abs/doc/protocol/nagoya-protocol-en.pdf

Zone	Acronym	Name	Origin	Year	Members	Actors	Type	Role	Conservation cluster	Sustainable use cluster	Website
1	NAMMCO	North Atlantic Marine Mammal Commission	Fish	1992	4	Public	Public	8	1	0	http://www.nammco.no/
1	NASCO	North Atlantic Salmon Conservation Organisation	Fish	1983	5	Public	Public	8	1	0	http://www.nasco.int/
1	NEAFC	Northeast Atlantic Fisheries Commission	Fish	1982	5	Public	Public	8	1	0	http://www.neafc.org/
1	NLBI	Non-Legally Binding Instrument on All Types of Forests	Forest	2007	193	Public	State	1	0	1	http://www.un.org/esa/forests/pdf/notes/bali_081207_pc.pdf
1	NPAFC	North Pacific Anadromous Fish Commission	Fish	1993	5	Public	Public	8	1	0	http://www.npafc.org/new/index.html
1	OSPAR	OSPAR Commission	Fish	1992	16	Public	Public	1	1	1	http://www.ospar.org
1	PACMF	Protocol For The Implementation Of The Alpine Convention Concerning Mountain Forests	Forest	1996	9	Public	Public	1	1	0	http://www.alpconv.org/en/convention/protocols/Documents/protokoll_bergwaldGB.pdf
1	PBLFCC	Protocol on Conservation and Sustainable Use of Biological and Landscape Diversity to the Framework Convention on the Protection and Sustainable Development of the Carpathians	Forest	2008	7	Public	Public	1	1	1	http://www.carpathianconvention.org/tl_files/carpathiancon/Downloads/01%20The%20Convention/1.1.2.1%20BiodiversityProtocolFinalsigned.pdf
1	PFFCC	Protocol on Sustainable Forest Management to the Framework Convention on the Protection and Sustainable Development of the Carpathians	Forest	2011	7	Public	Public	1	1	1	http://www.carpathianconvention.org/tl_files/carpathiancon/Downloads/01%20The%20Convention/1.1.2.2%20ProtocolonSustainableForestManagementsigned27may2011.pdf
1	PROFOR	Program on Forests	Forest	1997	1	Public	Public	3	1	0	http://www.profor.info/
1	Ramsar	Convention On Wetlands Of International Importance Especially As Waterfowl Habitat	Forest	1971	169	Public	Public	1	1	0	https://treaties.un.org/doc/Publication/UNTS/Volume%20996/volume-996-I-14583-English.pdf

Zone	Acronym	Name	Origin	Year	Members	Actors	Type	Role	Conservation cluster	Sustainable use cluster	Website
1	SEAFO	South East Atlantic Fisheries Organisation	Fish	2003	6	Public	Public	1	1	1	http://www.seafo.org/
1	SPRFMO	South Pacific Regional Fisheries Management Organisation	Fish	2012	13	Public	Public	5	1	0	https://www.sprfmo.int/
1	SWIOFC	Southwest Indian Ocean Fisheries Commission	Fish	2004	8	Public	Public	6	0	1	http://www.swiofp.net/
1	UN_REDD	The UN-REDD Programme	Climate	2008	73	Public	Public	6	1	1	http://www.un-redd.org/
1	UNCCD	Convention To Combat Desertification In Those Countries Experiencing Serious Drought And/Or Desertification, Particularly In Africa	Forest	1994	116	Public	Public	1	0	0	http://www.unccd.int/
1	UNFCCC	United Nations Framework Convention on Climate Change	Climate	1992	195	Public	Public	1	0	0	http://unfccc.int/essential_background/convention/items/6036.php
1	UNFF	United Nations Forum on Forests	Forest	2010	193	Public	Public	8	1	0	http://www.un.org/esa/forests/
1	WCPFC	Western and Central Pacific Ocean Fisheries Commission	Fish	2004	26	Public	Public	8	1	0	http://www.wcpfc.int/
1	WECAFC	Western Central Atlantic Fishery Commission	Fish	1973	34	Public	Public	1	1	0	http://www.fao.org/fishery/rfb/wecafc/en
2	CLUA	Climate and Land Use Alliance	Forest	2010	4	Firm	Private	4	1	0	http://www.climateandlandusealliance.org/en/about-us-en/
2	EcoFish	EcoFish/Henry & Lisa's	Fish	1999	7	Firm	Private	1	1	0	http://www.ecofish.com/
2	GGAP	Global G.A.P	AGRI	1997	247	Firm	Private	6	1	0	http://www.globalgap.org/uk_en/who-we-are/
2	SAI	Sustainable Agriculture Initiative Platform	AGRI	2010	75	Firm	Private	8	1	0	http://www.saiplatform.org/about-us/who-we-are
2	WBCSD	World Business Council on Sustainable Development	Energy	1995	186	Firm	Private	2	0	0	http://www.wbcsd.org/home.aspx
2	WOC	World Ocean Council	Fish	2008	11	Firm	Private	3	0	1	http://www.oceancouncil.org/site/

Zone	Acronym	Name	Origin	Year	Members	Actors	Type	Role	Conservation cluster	Sustainable use cluster	Website
3	ASC	Aquaculture Stewardship Council	AGRI	2010	2	CSO	Private	1	1	1	http://www.asc-aqua.org/index.cfm?act=tekst.item&iid=2&lng=1
3	ASOC	Antarctic and Southern Ocean Coalition	Fish	1978	7	CSO	Private	8	1	0	http://www.asoc.org/
3	ASE	Alliance for Sero Extinction	Forest	2000	203	CSO	Private	6	1	0	http://www.seroextinction.org/
3	BLIP	BirdLife International Partnership	Fish	1922	123	CSO	Private	6	1	0	http://www.birdlife.org/worldwide/programmes/marine
3	CCBA	Climate, Community and Biodiversity Alliance (CCB Standard)	Climate	2003	5	CSO	Private	1	1	0	http://www.climate-standards.org/
3	DSCC	Deep Sea Conservation Coalition	Fish	2004	79	CSO	Private	1	1	0	http://www.savethehighseas.org/about us/
3	FOS	Friend of the Sea	Fish	2006	1	CSO	Private	1	1	0	http://www.friendofthesea.org/about-us.asp?ID=9
3	GS	The Gold Standard	Climate	2004	1	CSO	Private	1	1	0	http://www.goldstandard.org/
3	Naturland	Naturland - Association for Organic Agriculture	Forest	1982	1	CSO	Private	1	1	1	http://www.naturland.de/en/naturland-3.html
3	PEFC	Program for the Endorsement of Forest Certification	Forest	2003	64	CSO	Private	1	1	1	http://www.pefc.org/
3	PlanVivo	Plan Vivo	Climate	2008	1	CSO	Private	10	1	0	http://www.planvivo.org/
3	RAC	Rainforest Alliance Certified	Forest	1987	1	CSO	Private	1	1	1	http://www.rainforest-alliance.org/about
3	RT	Rainforest Trust	Forest	1988	1	CSO	Private	10	1	0	https://www.rainforesttrust.org/
3	SAN	Sustainable Agriculture Network	AGRI	1997	11	CSO	Private	1	1	0	http://san.ag/web/about-us/who-are-we-2/
3	SC	SOCIALCARBON	Climate	2008	1	CSO	Private	1	1	0	http://www.socialcarbon.org/

Zone	Acronym	Name	Origin	Year	Members	Actors	Type	Role	Conservation cluster	Sustainable use cluster	Website
3	UTZ	UTZ	AGRI	2002	1	CSO	Private	1	0	0	https://www.utz.org/
4	ALLFISH	ALLFISH	Fish	2010	6	Public/ Firm	Hybrid	3	1	0	http://www.allfish.org/about.html
5	BCI	Better Cotton Initiative	AGRI	2005	853	Public/ CSO	Hybrid	1	0	0	http://bettercotton.org/about-bci/
5	CAFF	Conservation of Arctic Flora and Fauna	Fish	2013	14	Public/ CSO	Hybrid	3	1	0	http://www.caff.is
5	CPF	Collaborative Patnership on Forests	Forest	2001	14	Public/ CSO	Hybrid	6	1	1	http://www.cpfweb.org/73947/en/
5	GCP	Global Coffee Platform	AGRI	2003	305	Public/ CSO	Hybrid	1	0	0	http://www.globalcoffeeplatform.org/
5	GPFLR	The Global Partnership on Forest Landscape Restoration	Forest	2003	36	Public/ CSO	Hybrid	6	1	0	http://www.forestlandscaperestoration.org/
5	HSA	High Seas Alliance	Fish	2011	33	Public/ CSO	Hybrid	6	1	0	http://highseasalliance.org/about-us
5	IFOAM	IFOAM - Organics International	AGRI	1972	586	CSO/ Firm	Private	3	0	0	https://www.ifoam.bio/en/about-us
6	FSC	Forest Stewardship Council	Forest	1993	509	CSO/ Firm	Private	1	1	1	https://ic.fsc.org/
6	ICFA	International Coalition of Fisheries Associations	Fish	2010	4	CSO/ Firm	Private	2	1	0	http://www.allfish.org/about/partnerships.html
6	ISCC	International Sustainability and Carbon Certification	Forest	2010	84	CSO/ Firm	Private	1	1	0	http://www.iscc-system.org/en/
6	ISSF	International Seafood Sustainability Foundation	Fish	2009	9	CSO/ Firm	Private	2	1	1	http://iss-foundation.org/
6	KG	The Katoomba Group (Forest Trends)	Forest	1999	1	CSO/ Firm	Private	3	1	0	http://www.katoombagroup.org/about.php
6	MSC	Marine Stewardship Council	Fish	1997	1	CSO/ Firm	Private	8	0	1	http://www.msc.org
6	RSPO	Roundtable on Sustainable Palm Oil	Forest	2004	3080	CSO/ Firm	Private	1	0	0	http://www.rspo.org/en/who_is_rspo

Zone	Acronym	Name	Origin	Year	Members	Actors	Type	Role	Conservation cluster	Sustainable use cluster	Website
6	RTRS	Roundtable on Responsible Soy	Forest	2006	159	CSO/ Firm	Private	1	0	0	http://www.responsiblesoy.org/
6	SFI	Sustainable Forestry Initiative	Forest	1995	1	CSO/ Firm	Private	1	1	0	http://www.sfiprogram.org/
6	TFF	Tropical Forest Foundation (Reduced Impact Logging Verified/Standard)	Forest	1990	1	CSO/ Firm	Private	5	1	1	http://www.tropicalforestfoundation.org/about
7	4P1000	4 Pour 1000	AGRI	2015	169	Public/ CSO/Firm	Hybrid	2	1	0	http://4p1000.org/
7	AFF	African Forest Forum	Forest	2007	19	Public/ CSO/Firm	Hybrid	6	1	1	http://www.afforum.org/
7	APFNet	Asia-Pacific Network for Sustainable Forest Management and Rehabilitation	Forest	2007	31	Public/ CSO/Firm	Hybrid	3	0	0	http://www.apfnet.cn/index.php?option=com_content&view=article&id=10&Itemid=103
7	CBFP	Congo Basin Forest Partnership	Forest	2002	79	Public/ CSO/Firm	Hybrid	6	1	1	http://pfbc-cbfp.org/home.html
7	EI	Equator Initiative	Fish	2002	15	Public/ CSO/Firm	Hybrid	3	1	0	http://www.equatorinitiative.org/
7	FCPF	Forest Carbon Partnership Facility	Climate	2008	62	Public/ CSO/Firm	Public	10	1	1	https://www.forestcarbonpartnership.org/
7	FishCode	Global Partnerships for Responsible Fisheries (FishCode Programme)	Fish	1995	195	Public/ CSO/Firm	Hybrid	9	1	0	http://www.fao.org/fishery/fishcode/en
7	FLA	Forest Legality Alliance	Forest	2010	90	Public/ CSO/Firm	Hybrid	6	1	0	http://www.forestlegality.org/about
7	GACSA	Global Alliance for Climate-Smart Agriculture	Climate	2014	147	Public/ CSO/ Firm	Hybrid	3	0	0	http://www.fao.org/gacsa/en/
7	GFTN	WWF's Global Forest & Trade Network	Forest	1991	1	Public/ CSO/Firm	Private	2	1	0	http://gftn.panda.org/about_gftn/

Zone	Acronym	Name	Origin	Year	Members	Actors	Type	Role	Conservation cluster	Sustainable use cluster	Website
7	GFW	Global Forest Watch 2.0	Forest	1997	21	Public/ CSO/Firm	Hybrid	3	1	0	http://www.globalforestwatch.org/about/video
7	GPO	Global Partnership for Oceans	Fish	2012	8	Public/ CSO/Firm	Hybrid	7	1	0	http://www.globalpartnershipforoceans.org/
7	IUCN	International Union for Conservation of Nature and Natural Resources	Forest	1948	1393	Public/ CSO/Firm	Hybrid	8	1	0	http://www.iucn.org/
7	RSB	The Roundtable on Sustainable Biofuels (RSB Standard)	Climate	2007	80	Public/ CSO/Firm	Hybrid	1	0	1	http://rsb.org/
7	SFSP	Sustainable Food Systems Programme	AGRI	2015	22	Public/ CSO/Firm	Hybrid	6	0	0	http://www.unep.org/10yfp/Programmes/ProgrammeConsultationandCurrentStatus/Sustainablefoodsystems/tabid/1036781/Default.aspx

Annex C MRV assessment overview

Table 6 An overview of the MRV assessment made of the 55 transnational institutions. M = 1 if Monitoring takes place, R = 1 is reporting is carried out, V = 1 if internal verification is in place a V = 2 if third-party verification is employed.

Zone	Acronym	Name	M	R	V	Comment	Websites
2	CLUA	Climate and Land Use Alliance	0	0	0	No mention of any MRV and not reports on initiative projects	http://www.climateandlandusealliance.org/en/about-us-en/
2	EcoFish	EcoFish/Henry & Lisa's	1	1	0	Independent advisory board, but they seem to only give advice regarding impacts of fisheries and aquaculture. They have reports explaining why individual fish species were chosen by the Seafood Advisory Board. They also have a clear guide as to how they ensure seafood quality, but no verification of their standards.	http://www.ecofish.com/about/selectioncriteria.htm http://www.ecofish.com/about/advisory.htm
2	GGAP	Global G.A.P	1	1	2	Clear 3rd party MRV in place for certified bodies. The Certification Integrity Program (CIPRO) monitors and assesses the performance of all GLOBALG.A.P.-approved certification bodies. It ensures that certification bodies conduct their audits in line with GLOBALG.A.P guidelines and procedures and verifies that the same criteria and quality standards have been used on a consistent basis. The Integrity Surveillance Committee (ISC) assesses integrity issues and certification body non-conformances and proposes correctional measures and sanctions.	http://www.globalgap.org/uk_en/what-we-do/the-gg-system/ http://www.globalgap.org/uk_en/who-we-are/governance/Other-committees/integrity-surveillance-comm./
2	SAI	Sustainable Agriculture Initiative Platform	1	1	0	Advisory board "participates in the evaluation of the work of the Platform and its progress". Also, members are encouraged to report annually. Additionally, they publish annual reports reflecting on their practices and new initiatives. No mention of verification.	http://www.saiplatform.org/about-us/governance-3/regulatory-documents/code-of-conduct
2	WBCSD	World Business Council on Sustainable Development	1	1	0	They have an annual report called Reporting Matters where they show how reporting have changed member companies conduct and performance: "*Spanning 163 world-leading companies from more than 20 sectors and 35 countries, Reporting matters is the outcome of the fourth review of the WBCSD members' sustainability and integrated reports*". No mention of verification.	http://www.wbcsd.org/Projects/Reporting/Resources/Reporting-Matters-2016

Zone	Acronym	Name	M	R	V	Comment	Websites
2	WOC	World Ocean Council	1	1	0	The WOC has 6 focus areas, and for each it reports its goals and impacts. Also, an annual summit is held from which reports are published online. Further, under Ocean Policy and Governance it is stated that they have "*Active monitoring and analysis of major policy developments for WOC Members*". WOC has been formally accredited by several parties, but there is no mention of actual verification procedure.	http://oceancouncil.org/global-issues-platforms/ http://oceancouncil.org/global-issues-platforms/ocean-policy-governance/
3	ASC	Aquaculture Stewardship Council	1	1	2	ASC has a monitoring and evaluation framework in place which is based on the ISEAL code of good practice. There are several published reports including, case studies, standard explanation, revision of accreditation and certification etc. ASC's standard is a part of ISEAL, meaning that it meets credible standard setting. Third party verification is in place.	http://www.asc-aqua.org/index.cfm?act=tekst.item&iid=561&iids=565&lng=1 http://www.asc-aqua.org/index.cfm?act=tekst.item&iid=6&iids=382&lng=1 http://www.asc-aqua.org/index.cfm?act=tekst.item&iid=365&lng=1
3	ASOC	Antarctic and Southern Ocean Coalition	1	1	0	ASOC publish all their reports and scientific publications. The reports include performance reviews where the ASOC analyses and report how certain actors have dealt with the organisation's advice. No mention of verification	http://www.asoc.org/storage/documents/cc-xxxii-bg-19.pdf
3	ASE	Alliance for Sero Extinction	0	0	0	The ASE researches and review habitats globally to identify areas that should be protected to conserve endangered species. They publish these sites along with information and how they are determined on their website. In the statutes, it is stated that the ASE should establish a forum for best practices and lessons learned which should be presented at the CBD COPs starting with number 11. No sign of actual monitoring and reporting of impacts, nor verification.	http://www.seroextinction.org/overviewofase.htm http://www.arcgis.com/home/webmap/viewer.html?webmap=4ecca6a29bf142338e459e27ade152c8 http://www.seroextinction.org/pdf/ASEMemorandumofCooperationCBDSecretariat2010.pdf
3	BLIP	BirdLife International Partnership	1	1	0	BLIP has a detailed list of actions and aims related to each sub component/project. It publishes documents like action plans, educational and information brochures.They have a whole database outlining all IBA areas and explain impacts to biodiversity resulting from such protected areas. This constitutes monitoring and reporting.No mention of verification	http://www.birdlife.org/worldwide/programmeshttp://www.birdlife.org/datazone/sowb
3	CCBA	Climate, Community and Biodiversity Alliance	1	1	2	Clear MRV framework in place with third party verification. Three international research institutions help revise the standards.	http://www.climate-standards.org/

Zone	Acronym	Name	M	R	V	Comment	Websites
3	DSCC	Deep Sea Conservation Coalition	1	1	0	Publishes annual report outlining aims and achievements. No mention of verification.	http://www.savethehighseas.org/aboutus/
3	FOS	Friend of the Sea	1	1	2	There is a monitoring and reporting framework in place for companies that wish to be certified. They measure and report their coverages/impact (published on website). Use independent certification bodies accredited by the International Accreditation Forum (IAF).	http://www.friendofthesea.org/public/page/fos%20accred%207%20-english-v2.pdf
3	GS	The Gold Standard	1	1	1	There is an MRV framework in place that needs to be adhered to in order to get the Gold Standard. It includes auditing (monitoring), annual reporting and regular performance certification (verification). It is not clear whether the verification is 3rd party. All projects and their continuous progress and work are tracked and published in an online registry.	http://www.goldstandard.org/our-work/our-principles-process http://www.goldstandard.org/our-work/our-project-registry
3	Naturland	Naturland - Association for Organic Agriculture	1	1	2	An MRV framework is in place to ensure that parties applying for certification adhere to Naturland's standards. The monitoring and reporting takes place both before and after potential certification is awarded. The initial inspection process is carried out by a third party. The decision to award certification is made by the Naturland Certification Committee. However, Naturland itself is annually inspected by third party accreditation organisations like the IOAS to ensure that certification has been handled /awarded appropriately.	http://www.naturland.de/en/producers/steps-to-naturland-certification.html http://www.naturland.de/en/naturland/what-we-do/our-quality-approach/accreditations.html
3	PEFC	Program for the Endorsement of Forest Certification	1	1	2	A multitude of information is reported through the PEFC online platform including: case study reports on certified projects and companies, impact assessments and aims as well as technical reports outlining criteria/standards for achieving certification through a range of focus areas.To achieve PEFC certification one need to be accredited by a third-party certifier that check for adherence to all PEFC's standards in the relevant area. To renew certification the process has to be repeated.	http://www.pefc.org/resources/technical-documentation http://www.pefc.org/resources/case-stories http://www.pefc.org/certification-services/forest/advantages
3	PlanVivo	Plan Vivo	1	1	2	Plan vivo engage with a range of projects focusing on PES funding through selling certificates. PES monitoring is in place to ensure adherence to agreements. For each project design reports, annual reports and auditing reports are provided. Verification is carried by third parties such as the Rain Forest Alliance	http://www.planvivo.org/about-plan-vivo/ http://www.planvivo.org/project-network/validation/ http://www.planvivo.org/project-network/ http://www.planvivo.org/project-network/scolelte-mexico/

Zone	Acronym	Name	M	R	V	Comment	Websites
3	RAC	Rainforest Alliance Certified	1	1	2	RAC has a very clear monitoring and reporting scheme for their projects in order to measure their work and impact. Furthermore, they have the option of providing certification through FSC or SAN (both co-organised with RAC). Additionally, they have third party researchers examining some of their projects, providing independent assessment of the projects. Finally, RAC is a full member of the ISEAL Alliance. ISEAL membership entails independent verification	http://www.rainforest-alliance.org/impact/monitoring-evaluation http://www.rainforest-alliance.org/impact/assessing-results http://www.rainforest-alliance.org/impact/monitoring-evaluation
3	RT	Rainforest Trust	1	1	0	There is no mention of any M, R or V frameworks on their website, and no presentation of impact from their funding. The examined projects only outline what they are trying to do, not whether this has been successful. However, they do have some monitoring in place through implementing guards on the land that the RT buys. Also, they publish annual reports outlining where projects have been implemented.	https://www.rainforesttrust.org/
3	SAN	Sustainable Agriculture Network	1	1	2	SAN clearly monitors and reports their impacts, achieved through certification in the network.They also have a very clear third party verification structure in place for all the certification bodies that are part of the SAN network.	http://san.ag/web/our-impact/the-san-in-figures/ http://www.san.ag/biblioteca/biblioteca.php?cat=6 http://san.ag/web/our-work/accreditation-of-certification-bodies/
3	SC	SOCIALCARBON	1	1	2	In order to be certified by Social carbon a clear MRV framework has to be adhered to. This includes continuous monitoring, reporting and third party verification.	http://www.socialcarbon.org/who-we-are/criteria/ http://www.socialcarbon.org/documents/ http://www.socialcarbon.org/developers/certifying-entities/
3	UTZ	UTZ	1	1	2	UTZ has a very clear monitoring and evaluation system to measure the impact of their certification. The findings are published on their website. To be UTZ certified an entity has to be audited by a third-party CB. The CBs are approved by the UTZ. Finally, UTZ is an ISEAL alliance member.	https://www.utz.org/?attachment_id=3887 https://www.utz.org/wp-content/uploads/2015/12/EN_UTZ_Certification-Protocol_v4.1_2015.pdf https://www.utz.org/who-we-work-with/certification-bodies/
4	ALLFISH	ALLFISH	0	0	0	AllFish has a document outlining fishery performance indicators, but it is not clear whether or how they implement this. In general, the website is not very informative. They have a 2010 work plan, but no mention of whether the steps have been completed.	https://www.utz.org/wp-content/uploads/2015/12/UTZ_Monitoring-and-Evaluation_System-Report_v3.pdf http://www.allfish.org/programs.html

Zone	Acronym	Name	M	R	V	Comment	Websites
5	BCI	Better Cotton Initiative	1	1	2	BCI publish annual reports and harvest reports. For each country/project they have detailed annual information regarding cotton production under the BCI standard. The BCI standard system has 6 key areas. One of these is a measuring and evaluation mechanism to check impacts. BCI conducts or commissions certain qualitative sample tests of initiatives to verify impacts as well as commissioning independent researchers. As a full member of ISEAL they need to have independent verification in place	http://bettercotton.org/about-bci/bci-reports-2/ http://bettercotton.org/about-better-cotton/better-cotton-standard-system/ http://bettercotton.org/about-better-cotton/better-cotton-standard-system/results-and-impact/
5	CAFF	Conservation of Arctic Flora and Fauna	1	1	0	CAFF operates by providing policy advice through monitoring, assessment and expert groups. On their website, they clearly inform all the findings from the monitoring entity CBMP. There is no verification framework implemented.	http://www.caff.is/about-the-cbmp http://www.caff.is/monitoring-publications
5	CPF	Collaborative Partnership on Forests	1	1	0	The CPF has clear clauses encouraging monitoring, assessment and reporting. Additionally, they regularly publish progress reports. There is no obvious verification mechanism in place	http://www.fao.org/forestry/31127-0ce358e3ef9bf3ecb58dabe1282c0dc93.pdf http://www.cpfweb.org/73055/en/
5	GCP	Global Coffee Platform	1	1	2	Progress reports and annual reports are published through their website. The baseline common code clearly outlines an imperative to continuously monitor and report on several aspects of the coffee production. Also the global progress framework demand transparent monitoring and reporting. A third party independent accreditation/verification procedure is in place.	http://www.globalcoffeeplatform.org/resources/gcp-guidelines http://www.globalcoffeeplatform.org/assets/files/GCP_Doc_01_Baseline-Common-Code_v2.1_en.pdf http://www.globalcoffeeplatform.org/baseline-common-code/accreditation---assurance http://www.globalcoffeeplatform.org/progressframework/overview
5	GPFLR	The Global Partnership on Forest Landscape Restoration	1	1	0	FPLR has a clear monitoring and reporting network meant to facilitate knowledge transfer and learning. Additionally, they publish case study reports of projects where Forest and landscape restoration is being or has been implemented. No mention of verification.	http://www.forestlandscaperestoration.org/case-study/learning-sites
5	HSA	High Seas Alliance	1	0	0	In the HSA charter, there is a clear aim to implement a monitoring framework, however there are no mentioning of reporting, and no impact assessments are available through the website. Also, no mention of verification.	http://highseasalliance.org/sites/highseasalliance.org/files/HSA-Charter.pdf
5	IFOAM	IFOAM - Organics International	1	1	0	For each finished project the IFOAM publish reports and studies. No mention of verification	https://www.ifoam.bio/en/programs/completed-projects

Zone	Acronym	Name	M	R	V	Comment	Websites
6	FSC	Forest Stewardship Council	1	1	2	FSC has a clear monitoring system in place to measure impact of their certification. They also publish report from several projects.Finally they use third party certification as a verification mechanism.	https://ic.fsc.org/en/our-impact/program-areas/monitoring-and-evaluation https://ic.fsc.org/preview.celebrating-success-stories-of-fsc-certification.a-618.pdfhttps://ic.fsc.org/preview.report-on-the-structure-of-the-fsc-certification-system.a-5358.pdf
6	ICFA	International Coalition of Fisheries Associations	0	0	0	Website is down!	http://www.icfa.net/
6	ISCC	International Sustainability and Carbon Certification	1	1	2	In the ISSCs sustainability requirements framework it is clearly outlined that certified members have to monitor and report on several issue areas. The ISCC uses third party CBs to do the certification audits. Additionally, they publish annual overview of developments within the organisation. Additionally, they have an integrity program in place to ensure appropriate monitoring and verification by CBs.	http://www.iscc-system.org/en/certification-process/process-overview/ http://www.iscc-system.org/en/certification-process/certification-bodies/recognised-cbs/ http://www.iscc-system.org/en/iscc-system/iscc-integrity-program/ http://www.iscc-system.org/index.php?eID=tx_nawsecuredl&u=0&file=fileadmin/content/documents/ISCC-System/Overview_Changes_ISCC_2016.pdf&t=1478257909&hash=581ce6194b6ace9350e6d31ac92a74d84ac7c395
6	ISSF	International Seafood Sustainability Foundation	1	1	2	A key part of the strategic plan is to continuously monitor evaluate and report on tuna conservation. Furthermore, they have an annual compliance report where efforts by members are recorded and reported. Finally they have an independent auditing procedure to ensure that members comply with conservation goals and measures	http://iss-foundation.org/who-we-are/governance/strategic-plan/ http://iss-foundation.org/what-we-do/commitments-compliance-2/ http://iss-foundation.org/what-we-do/commitments-compliance/audit-process/
6	KG	The Katoomba Group (Forest Trends)	0	0	0	KG does not have a monitoring and reporting system in place. They do provide some information of running projects, but no reporting on impacts is available.	http://www.katoombagroup.org/about.php?focus=roles http://www.katoombagroup.org/regions/asia/

Zone	Acronym	Name	M	R	V	Comment	Websites
6	MSC	Marine Stewardship Council	1	1	2	MSC has a very clear reporting framework and report their impacts annually. In the certification program, there is also a clear structure including annual audits to verify compliance. Independent CBs are used.	https://www.msc.org/global-impacts https://www.msc.org/about-us/standards/reviewhttps://www.msc.org/documents/policy-procedural-documents/msc-standard-setting-procedure https://www.msc.org/get-certified/fisheries/getting-your-fishery-certified
6	RSPO	Roundtable on Sustainable Palm Oil	1	1	2	The RSPO provides information on implementation and impact assessment. Public annual reports. Furthermore, they have a clear procedure as to how they set and review RSPO standards and a Standards and Certification Standings Committee that focus amongst others: "Organise a credible mechanism for scrutinising and recording the production of RSPO defined sustainable palm oil in the various environments". This entails monitoring of the program and reporting to the public. Finally, all certified bodies are verified by 3rd party verifiers	http://www.rspo.org/key-documents/certification/standards-setting-process
6	RTRS	Roundtable Responsible Soy	1	1	2	In the RTRS standards a monitoring and evaluation framework is clearly outlined. They clearly report all standard and certification guidelines and use of third party certification.	http://www.responsiblesoy.org/wpdm-package/rtrs-standard-for-responsible-soy-production/?wpdmdl=1974&ind=LSSNQFPCuOaYDKalkUcbMnETxI_EaR7VKDql8oAv_08ORUrxea_jBB-iTX6yJZd-RrPeyblE6ip48QoFP7PvrV-8a9jhzSBTlS5pNAcAYcw&lang=en http://www.responsiblesoy.org/certification/nuestra-certificacion/?lang=en http://www.responsiblesoy.org/docs/?lang=en
6	SFI	Sustainable Forestry Initiative	1	1	2	The SFI has two MRV processes both based on external third party verification. One aimed at the certification and the other aimed at improving the SFI organisation and procedures.	http://www.sfiprogram.org/get-the-facts/independence-inclusion/ http://www.sfiprogram.org/about-us/external-review-panel/ http://www.sfiprogram.org/sfi-standard/
6	TFF	Tropical Forest Foundation (Reduced Impact Logging Verified/Standard)	0	0	0	Website is down!	http://www.tropicalforestfoundation.org/about

Zone	Acronym	Name	M	R	V	Comment	Websites
7	4P1000	4 Pour 1000	0	0	0	No mention of any M, R or V.	http://4p1000.org/
7	AFF	African Forest Forum	1	0	0	A part of the framework is to issue reports on ongoing projects which also entails measuring/monitoring. There is, however, no clear reporting of impacts.	http://www.afforum.org/about/how http://www.afforum.org/activities/overview
7	APFNet	Asia-Pacific Network for Sustainable Forest Management and Rehabilitation	1	1	0	In APFNet's operational framework, it outlines that the board has the responsibility to monitor ongoing projects. Also, members have the right to receive APF progress reports, and the progress of each project is published online. No mention of verification.	http://www.apfnet.cn/uploads/about-us/APFNet_Operational_Framework_with_revised_membership_procedures.pdf http://www.apfnet.cn/index.php?option=com_content&view=article&id=120&Itemid=117
7	CBFP	Congo Basin Forest Partnership	1	0	0	The advisory committee has the responsibility to regularly perform monitoring of activities conducted within the CBFP and to provide advice to the CBFP Facilitator. However, there are no mentioning/sign of a reporting or verification framework on impacts.	http://pfbc-cbfp.org/workingstructure.html
7	EI	Equator Initiative	1	1	0	The initiative hands out the *Equator Prise* and publish reports/books with information from case studies and prise winning initiative. In order to win the prise: "Initiatives that have improved community wellbeing and local livelihoods through the protection, restoration and sustainable management of forests; sustainable agriculture and food security; community-based adaptation to climate change; or biodiversity conservation." This is considered monitoring by the technical committee and the publications of case studies as reporting. However, there is no mention of verification.	http://www.equatorinitiative.org/images/2015_Nomination_Fors/EP2015%20Nomination%20Form%20EN.pdf http://equatorinitiative.org/index.php?option=com_content&view=article&id=978&Itemid=1044&lang=en
7	FCPF	Forest Carbon Partnership Facility	1	1	0	The FCP has two M&E frameworks in place. One evaluating country level REDD+ programs and one evaluating the organisation's performance. Additionally, annual reports are published online. No mention of verification.	https://www.forestcarbonpartnership.org/monitoring-and-evaluation-0 https://www.forestcarbonpartnership.org/sites/forestcarbonpartnership.org/files/FCPF_Info_Memo_06-13-08.pdf
7	FishCode	Global Partnerships for Responsible Fisheries (FishCode Programme)	1	1	1	In the FishCode's code of conduct there are clear clauses for monitoring and reporting. Furthermore, it is mentioned that reported data should be verified by appropriate systems, however as such system is not identified this is recorded simply as non-third party verification.	http://www.fao.org/docrep/005/v9878e/v9878e00.htm

Zone	Acronym	Name	M	R	V	Comment	Websites
7	FLA	Forest Legality Alliance	0	0	0	No mention of any type of M, R or V. They use already established legal mechanisms to achieve their goals. No impact assessment framework.	http://www.forestlegality.org/about
7	GACSA	Global Alliance for Climate-Smart Agriculture	0	0	0	No mention of any type of M, R or V.	http://www.fao.org/gacsa/en/
7	GFTN	WWF's Global Forest & Trade Network	1	1	0	In their sector-specific position papers there are clauses for monitoring and evaluation. Online they provide specific impact data for each project (protected area). No mention of verification.	http://gftn.panda.org/gftn_worldwide/ http://gftn.panda.org/resources/position_papers/
7	GFW	Global Forest Watch 2.0	1	1	0	"Global Forest Watch (GFW) is an interactive online forest monitoring and alert system " Furthermore, they report online all the data they are provided. No mention of any type of verification mechanism.	http://www.globalforestwatch.org/about
7	GPO	Global Partnership for Oceans	0	0	0	Website is down!	http://www.globalpartnershipforoceans.org/
7	IUCN	International Union for Conservation of Nature and Natural Resources	1	1	0	The IUCN has a very clear M&E policy framework as well as publishing annual reports. No mention of verification	https://www.iucn.org/sites/dev/files/import/downloads/evaluation_policy_eng.pdf https://www.iucn.org/secretariat/about/programme-work-and-reporting/annual-reports
7	RSB	The Roundtable on Sustainable Biomaterials (RSB Standard)	1	1	2	There is a clear system in place for monitoring and verification of certification by third party CBs. Furthermore, they have a framework in place for measuring and reporting their impacts. The RSB has further been evaluated by an independent body in 2015 to assure general compliance with the certification framework.	http://rsb.org/pdfs/documents_and_resources/RSB%20Certification%20Guide.pdf http://rsb.org/activities-and-projects/monitoring-evaluation/ http://rsb.org/pdfs/documents_and_resources/RSB%20Standards%20Guide.pdf
7	SFSP	Sustainable Food Systems Programme	1	1	0	A progress report was prepared to the UN secretary general in 2015. This can be seen as M and R. No mention of verification.	http://www.unep.org/10yfp/Portals/50150/downloads/ECOSOC_10YF_nov13.pdf