

# **The impact of conflict mineral initiatives interaction on conflict minerals governance performance**

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The thesis is dedicated to my grandfather.

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## Summary

During the past five years, a range of transnational governance initiatives have been developed to deal with the conflict minerals issue. Conflict minerals are mostly found in the Great Lakes Region and are extracted under severe human rights abuses. Over the years, conflict mineral initiatives have interacted with each other in various ways and to various degrees. It is then argued that interaction between conflict mineral initiatives has contributed to the performance of the conflict minerals governance arena as a whole. First, the development of institutional characteristics and interaction characteristics of conflict mineral initiatives are mapped. Then, patterns in institutional and interaction characteristics development are compared to establish the role of interaction in shaping institutional characteristics of conflict mineral initiatives. In a next step, these results feed into a threefold analysis of the effects of interaction on conflict minerals governance performance. First, the institutional characteristics development is set against good governance principles to assess whether conflict mineral initiatives start to practice more effective governance strategies due to interaction. Second, the network structure of interacting conflict mineral initiatives is analyzed to assess whether the network structure facilitates intensive forms of interaction between conflict mineral initiatives. Third, the production of conflict-free minerals is investigated to discuss whether interaction also motivates conflict mineral initiatives to extract more conflict-free minerals from the Great Lakes Region.

It is concluded that conflict mineral initiatives interact intensively with one another. Interaction positively influences the institutional characteristics development of conflict mineral initiatives by harmonizing regulatory standards, increasing stakeholder involvement, and fostering experimentation and learning opportunities. As a result, the performance of the conflict minerals governance arena as a whole is increased. The initiatives score higher on the integration of good principles. In addition, the network structure of the conflict minerals governance arena allows for more qualitative interaction, allowing good practices to spill over to other initiatives. Lastly, the production of conflict-free minerals is still modest. However, the conflict minerals governance arena is still in its infancy and it might be too early to judge its performance by its production figures. The current efforts and interaction of conflict mineral initiatives might lay the groundwork for solving the conflict minerals issue in the foreseeable future.

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## Abbreviations

3Ts	Tin, Tantalum, and Tungsten
AFDL	Alliance des Force Démocratiques pour la Libération du Congo-Zaïre
AIAG	Automotive Industry Action Group
ARM/FLO	Alliance for Responsible Mining/Fairtrade International
ASM	Artisanal and Small-scale Mining
AVX	Aerovox corporation
BGR	Bundesanstalt für Geowissenschaften und Rohstoffe
BSR	Business for Social Responsibility
CA	Canadian Conflict Mineral Bill
CFS	Conflict-Free Smelter
CFS EAF	Conflict-Free Early Adopters Fund
CFTI	Conflict-Free Tin Initiative
CGI	Congolese Government Initiatives
CoC	Chain-of-Custody
CTC	Certified Trading Chains
DMCC	Dubai Multi Commodities Centre
DRC	Democratic Republic of Congo
EICC	Electronic Industry Citizenship Coalition
EITI	Extractive Industries Transparency
EU	European Union
EU ITF	EU International Task Force
FDLR	Democratic Forces for the Liberation of Rwanda
G8	Group of Eight
GeSI	Global e-Sustainability Initiative
ICGLR	International Conference on the Great Lakes Region
IRMA	Initiative for Responsible Mining Assurance
ISEAL	International Social and Environmental Accreditation and Labeling
ITRI	International Tin Research Institute
iTSCi	ITRI Tin Supply-Chain initiative
ITU	International Telecommunications Union
KEMET	Kemet
LBMA	London Bullion Market Association
M23	March 23 Movement
MLC	Movement for the Liberation of Congo
MONUC	United Nations Organization Mission in the Democratic Republic of Congo
MONUSCO	Mission de l'Organisation des Nations Unies pour la stabilisation en République démocratique du Congo
NCDP	National Congress for the Defense of the People
NGO	Non Governmental Organization
OECD	Organisation for Economic Co-operation and Development
PAC	Partnership Africa Canada
PPA	Public-Private Alliance for Responsible Minerals Trade
PROMINES	Growth with Governance in the Mineral Sector Project
RCD	Rally for Congolese Democracy
REACH	Registration, Evaluation, Authorisation, and Restriction of Chemicals
RJC	Responsible Jewellery Council
RSN	Responsible Sourcing Network
SEC	Securities and Exchange Commission
SFH/SfH	Solutions for Hope
SOMO	Research Centre on Multinational Corporations
STAREC	Programme de Stabilisation et de Reconstruction des Zones sortant des conflits armés
UN	United Nations
UNEP	United Nations Environmental Programme
US	United States
USAID	United States Agency for International Development
WGC	World Gold Council



# Map of the Democratic Republic of Congo (DRC)



Source: <http://www.ezilon.com/maps/images/africa/political-map-of-D-R-of-Con.gif> on 5 August 2013.

# 1. Introduction

Against the backdrop of exponentially increasing resource scarcity, the mining industry has become more globalized during the last decades and increasingly expands its operations towards Africa, Asia, and Latin America (Bleischwitz *et al.*, 2012). The increasing resource scarcity can be related to a rise in the use of electronic devices such as mobile phones, laptops, and MP3 players, which contain rare metals that are essential for their manufacture and that are extracted from these regions (Nathan & Sarkar, 2010). Especially during the past decade, the demand for these rare metals has exponentially grown and is expected to grow further with the same pace (Bleischwitz *et al.*, 2012: 21). However, a significant part of these metals are mined under conditions of armed conflict and human rights abuses in the eastern part of the Democratic Republic of Congo (DRC). The mining and trade of these 'conflict minerals', which are defined as gold, coltan, cassiterite, and wolframite, as well as their derivatives (US Congress, 2010), are often controlled by the Congolese National Army and various armed rebel groups, notably the Democratic Forces for the Liberation of Rwanda (FDLR) and the National Congress for the Defense of the People (NCDP) (Nathan & Sarkar, 2010: 22). In addition, conflict minerals are associated with other negative conditions such as human rights abuse, bad working conditions, and local environmental degradation (Global Witness, 2009).

During the past five years, however, many international organizations, governments, and private actors have, independently or together, sought to address the issue of conflict minerals, in particular through setting up information disclosure mechanisms. Such mechanisms aim to increase transparency, traceability, and accountability along the global material supply chain (Bleischwitz *et al.*, 2012: 19). The United Nations (UN) and the Organisation for Economic Co-operation and Development (OECD) have developed guidance documents for responsible sourcing of minerals from conflict regions at the international level. In the United States (US), the Dodd-Frank Act, Section 1502 requires companies to register products containing conflict minerals from the Great Lakes Region. A similar proposal has now been introduced by the European Commission. In the Great Lakes Region itself, the International Conference of the Great Lakes Region (ICGLR) developed a regional certification scheme for conflict minerals that is being transformed into national legislation by the participating states. In addition, a wide range of private actors, such as companies and business associations, have developed independent conflict mineral initiatives - possibly as a reaction to developments taking place at the international level and motivated by NGO pressure. Several private conflict mineral initiatives are active in the Great Lakes Region.

The conflict mineral initiatives are faced with difficult challenges. Contrary to many food commodities, conflict minerals are commodities that are much harder to control. Most of the agricultural commodity sites are situated in relatively peaceful regions with rather stable governments. Conflict minerals, on the other hand, are produced in a conflict-prone environment with weak state capacities. In the upstream supply chain in the Great Lakes Region, many supply chain actors have the ability to mix illegitimate resources with legal ones (Bleischwitz *et al.*, 2012: 27). The large number of small producers, the so-called artisanal and small-scale miners, make it difficult to establish reliable control mechanisms (*ibid.*). Downstream, the supply chain is also complex due to the highly globalized nature of conflict mineral supply chains, involving companies from around the globe. The complexity of the conflict mineral supply chains might explain the current plethora of conflict mineral initiatives, which focus on different parts of the supply chain and make use of different strategies to approach the issue.

It could be argued that the increasing proliferation of conflict mineral initiatives might prove

to be an obstacle in solving the conflict minerals issue in a coordinated and effective way. Current conflict minerals governance presents a case of regime complexity: a situation where there is no single unified body of hierarchically imposed rules governing a transnational issue area, but a set of parallel or overlapping institutions instead (Alter & Meunier, 2009). Several scholars point out the negative consequences of regime complexity, where a great diversity of initiatives lead to unproductive outcomes. The negative consequences include duplication, lack of coordination, conflicts arising from rule inconsistencies, and cross-institutional political strategies which then results in actors exploiting governance diversity to pursue self-interested goals (Alter & Meunier, 2009; Eberlein *et al.*, forthcoming; Overdevest & Zeitlin, 2012). Many industry-sponsored reports on the conflict minerals issue stress the need for more harmonization among current initiatives in order to tackle the challenges presented by the conflict minerals issue. These reports present and suggest several pathways for improved design of current conflict mineral initiatives (e.g. Cuvelier *et al.*, 2010; Garrett *et al.*, 2010; International Alert, 2010; ITU 2012; Pact, 2010; Lezhnev & Sullivan, 2011; Resolve, 2010; Spittaels, 2010; Verbruggen *et al.*, 2011).

Whether or not the conflict mineral initiatives have taken these warning signals into account, the thesis shows that conflict mineral initiatives interact in many different ways with each other, rather than operating in isolation. It seems that interaction sets in motion a development of harmonization of conflict minerals governance. Such interaction between conflict mineral initiatives is understood here as the different ways in which initiatives exert causal influence on each other's development and effectiveness through direct contact (Gehring & Oberthür, 2009).<sup>1</sup> The observation of growing conflict mineral initiatives interaction fit in a more recent body of regime complexity literature, emphasizing positive consequences of regime complexity for governance outcomes. It suggests that overlap and parallelism in a situation of regime complexity also might promote innovation and experimentation. Furthermore, it might foster more flexibility across issues and adaptability over time than a hierarchical system of rules, imposed by a monopolistic international institution, which results in more effective outcomes (Keohane & Victor, 2011; Sabel & Zeitlin, 2008; Overdevest & Zeitlin, 2012). However, knowledge about transnational governance interaction is still limited.<sup>2</sup> The significance of interaction effects both generally and in specific cases is hardly studied. Little is known about the effects of interaction on the development of initiatives, the institutional characteristics of initiatives and on the performance of a single transnational governance arena (Eberlein *et al.*, forthcoming; Gehring & Oberthür, 2008, 2009). In addition, the few studies of transnational governance interaction are mostly single case studies. A range of scholars stress the need for multiple-*N* case studies to arrive at broader generalizations and more systematic comparison of transnational governance interaction (Beisheim & Campe, 2012; Bitzer *et al.*, 2012; Bulkeley & Jordan, 2012; Gehring & Oberthür, 2008, 2009; Pattberg, 2012). The limited knowledge makes it hard to arrive at solid claims about causal relationships between interinitiative interaction and governance performance over time. Up to now, a few scholars explore how interactions can be 'steered' to increase the performance of governance initiatives. Abbott (2012) stresses the need to 'orchestrate' transnational schemes by governments and international organizations to further global public interests. However, Glasbergen (2011) observed that private sector initiatives are capable to orchestrate themselves without the need of governmental intervention.

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<sup>1</sup> The literature features a diversity of terms to denote the phenomena that are similar to the concept of interaction here, including *interplay*, *linkage*, *interlinkage*, *overlap* and *interconnection* (see Gehring & Oberthür, 2008).

<sup>2</sup> The concept of transnational governance specifically refers here to transnational *sustainability* governance, as the conflict minerals issue is most of all a sustainability concern.

Such recent insights provide some first attempts at closing the transnational governance interaction knowledge gaps which the thesis can build upon, resulting in the following main research question:

“What impacts does interaction between conflict mineral initiatives, in different governance process phases, have on the overall performance of conflict minerals governance over time?”

The sub questions related to the main question are as follows:

1. In what ways do conflict mineral initiatives attempt to govern the conflict minerals issue?
2. What patterns are observed in the development of conflict minerals governance over time?
3. In what ways do conflict mineral initiatives interact with one another during different phases of the governance process?
4. What patterns are observed in the development of conflict mineral initiatives interaction over time?
5. What is the relationship between the development of conflict mineral initiatives interaction and the development of conflict minerals governance?
6. What criteria could be used to evaluate the performance of conflict minerals governance?

Assuming for the moment that there is interaction between conflict mineral initiatives to a large extent and recognizing there are many knowledge gaps in transnational governance interaction, the research aim is to further develop theory on transnational governance interaction. In particular, the research focuses on the impact of conflict mineral initiatives interaction on conflict minerals governance performance. It does so by analyzing the development of conflict mineral initiatives interaction and governance characteristics over time and during different stages in the governance process. The different governance process stages consist of the development, implementation, and monitoring and evaluation stages based on recent insights in transnational governance and sustainable supply chain governance systems (Bitzer *et al.*, 2012; Eberlein *et al.*, forthcoming; Vermeulen *et al.*, 2010). The governance process approach is adopted as it is assumed that conflict minerals governance is a form of regulatory governance that bring together heterogeneous actors from state, market, and civil society spheres, who perform different roles and functions at different stages throughout the policy cycle (Abbott & Snidal 2009; Abbott *et al.*, 2011; Black, 2002, 2003; Driessen *et al.*, 2012).

The research involves a global analysis of conflict mineral initiatives that are active along the global conflict mineral supply chains. Rather than studying individual or several initiatives separately, which dominates much of the current sustainable supply chain literature, there is a need for a multiple-*N*, global analysis of transnational sustainability initiatives and their interaction in complex supply chains in order to arrive at more systematic and generalizable causal relationships. Moreover, the research contributes to the analysis of successfulness of multi-actor arrangements, in which both civil society and front running businesses are very active, in the context of global trade. In this light, it should be stressed that much of the contemporary sustainable supply chain literature focuses on the fields of food (coffee, tea, cacao), clothes (cotton) or biofuels (palm oil), but ignores the production electronic devices and the sourcing of its components, including conflict minerals. The neglect of

conflict minerals commodities in sustainable supply chain literature is remarkable, because these minerals are part of an ever increasing electronic consumerism.

The results of the analysis provide more insight into what conditions lead to more successful interactions and consequently to recommendations for a more effective conflict minerals governance. Aside from scientific relevance, the results could also contribute to an improvement of living conditions for an entire population in Africa's Great Lake Region and East Congo, specifically. Conflict minerals mining is important to thousands of livelihoods in East Congo, where the extraction of these minerals contribute greatly to income generation, economic growth, and employment (Perks, 2012).

The build-up of the thesis is as follows. First, the theories and concepts of the thesis are discussed, after which the methodology is explained. Then, the development of conflict mineral initiatives is presented. The third chapter focuses on interaction between conflict mineral initiatives. Fourth, development and interaction patterns of conflict mineral initiatives are compared to assess the influence of interaction in the institutional characteristics of conflict mineral initiatives. The last chapter focuses on the effects of interaction on the performance of the conflict minerals governance arena and their initiatives and is followed by a conclusion.

## 2. Theories and concepts

In this section, the theories and concepts used in the thesis are presented. First, the concept of transnational governance and its related scholarship are set out. It is argued here that conflict minerals governance initiatives are manifestations of transnational governance. In addition, it is proposed that the thesis fills a knowledge gap in the transnational governance debate. Second, conflict mineral initiatives are further conceptually defined and it is established how previous scholars have analysed transnational governance initiatives. This theoretical discussion forms the basis for an analysis of the institutional characteristics of conflict mineral initiatives. In the third part, the attention shifts to transnational governance interaction. It is argued that regime complexity theory has mainly influenced the field of transnational governance interaction analysis. Furthermore, it is assessed how previous scholarship discusses the consequences of regime complexity on the performance of transnational governance initiatives. Subsequently, it is discussed how actors could reap the benefits of regime complexity, while minimizing its negative consequences. Fourth, two approaches for the analysis of transnational governance interaction are presented. The governance process approach provides an analytical framework to study interaction across different stages in the governance process. The network approach, on the other hand, puts more emphasis on structural features of the conflict mineral initiatives network. Lastly, the question is posed how the performance of transnational governance interaction can be assessed. The two good governance frameworks of the United Nations (UN) and International Social and Environmental Accreditation and Labeling (ISEAL) Alliance are deemed to be of use here. By integrating the two frameworks, a reference frame is created. The reference framework can then be applied to assess the effects of conflict minerals governance initiatives interaction on the performance of conflict minerals governance.

### 2.1. Transnational governance<sup>3</sup>

The contemporary transnational governance literature focuses on many global environmental issues, climate change being among the most popular. However, it has neglected the conflict minerals issue so far. Still, the study of transnational governance interaction fits in this growing body of literature. Transnational governance scholars increasingly recognize the crucial role of transnational interactions in influencing the dynamics and outcomes in politics of global environmental issues. They seek to understand how a wide range of actors could organize the governance of global environmental issues more transnationally (e.g. Andonova *et al.*, 2009; Bulkeley & Newell, 2010; Cashore *et al.* 2004; Jagers & Stripple, 2003; Pattberg & Stripple, 2008). The transnational governance debate finds its origin in the broad field of global governance research. The concept of global governance can be linked to the work of Rosenau (2000) who distinguishes between government, describing the world of states, and governance, which “occurs on a global scale through both the co-ordination of states and activities of a vast array of rule systems that exercise authority in the pursuit of goals and that function outside normal jurisdictions” (Rosenau, 2000: 167). Out of global governance research, scholars started to focus more and more on transnational relations and interaction. These transnational relations or interactions can be understood here as “regular interaction across national boundaries when at least one actor is a nonstate agent or does not

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<sup>3</sup> The theories and concepts presented here specifically focus on transnational *sustainability* governance, as the conflict minerals issue is most of all a sustainable development concern. The term ‘sustainability’ is left out here, and the rest of the thesis, for readability reasons.

operate on behalf of a national government or an international organization” (Risse-Kappen, 1995: 3).

The core of the transnational governance debate deals with its conceptual scope. The controversy is mostly based on the composition of actors in transnational governance initiatives. A first strand of research mostly focuses on the emergence of transnational governance initiatives that (almost) exclusively consist of actors in the private sector (Biermann *et al.*, 2010; Cutler *et al.*, 1999; Falkner, 2003; Hall & Biersteker, 2002; Lipschutz & Rowe, 2005; Pattberg, 2005). A second strand looks more into public-private partnerships. Many of these public-private partnerships started out as ‘Type-II’ initiatives emerging during the aftermath of the World Summit on Sustainable Development in Johannesburg in 2002 (Andonova, 2010; Andonova & Levy, 2003; Bäckstrand, 2008; Benner *et al.*, 2004; Pinkse & Kolk, 2009). These type of partnerships notably involve both public and private actors.

Beyond this dichotomy in the transnational governance literature, scholars have more recently also identified transnational governance initiatives that fall somewhere in between these two categorizations (Bulkeley *et al.*, 2012; Hoffmann, 2011; Kolk *et al.*, 2010). The transnational governance initiatives landscape is thus characterized by increasing diversity and complexity. One observer suggests to view this transnational governance landscape as a spectrum with private self-regulation at one end, and public regulation at the other end (Bäckstrand, 2008). Kolk *et al.* (2010), on the other hand, distinguish private nonprofit partnerships of companies and NGOs; public-private partnerships of government (agencies) and companies; and tripartite partnerships involving all three types of actors. In a similar vein, Visseren-Hamakers and Glasbergen (2007) argue that partnerships can be divided in private intersectoral partnerships of civil society and business, and public-private intersectoral partnerships of government, business, and/or civil society. However, Andonova *et al.* (2009) propose that the involvement of nonstate actors are not a necessary condition for transnational governance. Studying the climate change governance arena, Andonova *et al.* (2009) present public transnational governance networks that are established by and for public actors, such as climate change city networks. Likewise, Bäckstrand (2008) identifies transgovernmental networks between different branches of national government, bringing together subnational state authorities from different national governments around the world. The increasingly complex transnational governance landscape makes it consequently far from straightforward to conceptualize which governance initiatives can be labeled as transnational.

Recognizing the conceptual difficulties around transnational governance, Andonova *et al.* (2009) present three common features that provide a definition of transnational governance. At the same time, the three features still accommodate the diversity of transnational governance. In their view, transnational governance is concerned with realizing public goals through the process of steering a particular constituency of actors that is regarded as authoritative. Such a definition makes a distinction possible between transnational governance initiatives that merely try to influence the establishment and operation of governance institutions, such as lobby organizations, and those that truly govern by bringing together actors with sufficient power and legitimacy to establish, operationalize, apply, enforce, interpret, or vitiate the network’s behavioral rules (Conca, 2005: 190).

However, in a reaction to this definition, Bulkeley *et al.* (2012) note that the focus on public goals might lead to problems in terms of conceiving of transnational governance as purely a matter of public purpose, ignoring the interests of private actors. This pitfall can be evaded when the ‘publicness’ of transnational governance is viewed as a domain where “expectations regarding legitimate social purposes, including the respective roles of different social sectors and actors, are articulated, contested, and take shape as social facts” (Ruggie, 2004: 504). Following this line of

reasoning, transnational governance is defined here as the involvement of a range of actors and forms of authority, concerned with what the legitimate social purpose of responding to a particular global environmental issue entails or should entail (Bulkeley *et al.*, 2012: 594). The development of the conflict minerals governance field fits in this definition and in the trend of a ‘Cambrian explosion’ of transnational governance initiatives witnessed in many environmental and sustainability issues (Keohane & Victor, 2011). Many initiatives are marked by great autonomy of nonstate actors, but public transnational initiatives have also emerged.<sup>4</sup>

As described above, much of transnational governance research has extensively analyzed how actor type and different forms of authority influence the composition and operation of transnational governance. However, the empirical proof in these studies does not reveal how certain actor characteristics might determine which governance strategies are available. In addition, transnational governance studies are not clear on how different forms of authority define the character of transnational governance itself (Bulkeley *et al.*, 2012).

Next to actor and authority-related research, another significant part of transnational governance literature focuses on functions that transnational governance is believed to perform. Although there is a great diversity in the terminology used in the literature, a delineated set of governance functions can be identified that consists of: agenda setting; information sharing; capacity building; soft and mandatory forms of regulation; and cross-sectoral global environmental governance integration (Andonova *et al.*, 2009; Bäckstrand, 2008; Bitzer *et al.*, 2008; Dingwerth, 2008; Pattberg, 2006; Visseren-Hamakers & Glasbergen, 2007). It should be noted that these governance functions do not necessarily exclude one another. Indeed, most transnational governance initiatives engage in performing several functions at the same time. Here too, however, there is only a small empirical basis to explain how such governance functions could be clustered, to which extent they are taken up by different types of transnational governance, or whether they are effective (Bulkeley *et al.*, 2012).

To summarize, a large part of transnational governance theory focuses on the emergence, forms, and effectiveness of transnational governance initiatives, mostly using isolated cases as empirical proof. Many of these scholars stress the importance of transnational governance interaction for environmental governance success. Still, there is too little knowledge about transnational governance interaction themselves, their implications for transnational institutional characteristics, and the effects of interactions on the performance of transnational governance. With the study of interaction among conflict minerals governance initiatives, a first attempt at addressing this knowledge gap is made. Apart from this particular knowledge gap, the transnational governance theory is useful in providing a theoretical context for answering the research question of the thesis. It draws attention to the different forms of transnational governance initiatives and the functions they can perform. In this context, the next paragraph outlines an analytical approach towards the study of conflict mineral initiatives’ institutional characteristics.

## **2.2. Analyzing institutional characteristics of transnational governance initiatives**

The previous discussion on transnational governance serves as a starting point and background for a multiple-*N* analysis of conflict mineral initiatives. The prevailing dominance of single cases studies in transnational environmental governance research limits the scope for producing broader generalizations (Bulkeley & Jordan, 2012), which has recently led scholars to stress the need for

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<sup>4</sup> Why conflict minerals governance initiatives are transnational, is more extensively discussed in later sections of the thesis.



multiple-*N* studies of development in and across different environmental issue areas (Beisheim & Campe, 2012; Pattberg, 2012). Such an approach may enhance the development of an understanding of the extent and nature of transnational conflict minerals governance at the least, but with possible implications for the domains of other global commodity chains. There have not been many attempts in the transnational environmental governance literature to systematically study multiple transnational governance initiatives in a specific environmental domain at the same time, moving beyond the study of a single or a handful of transnational environmental governance initiatives. Almost all of the current available multiple-*N* studies have taken place in the field of climate change (e.g. Abbott, 2012; Bulkeley *et al.*, 2012; Hoffmann, 2011; Bitzer *et al.* 2012 being the exception). However, the strong focus of current multiple-*N* studies on climate change does not pose a significant barrier to applying the definitions and concepts of these authors to the study of conflict minerals governance initiatives. The following two subparagraphs outline various definitions of and selection criteria for transnational governance initiatives, and institutional characteristics of transnational governance initiatives scholars have focused upon, respectively.

### *2.2.1. Defining and selecting transnational governance initiatives*

Research on transnational governance initiatives does not present a large conceptual diversity. With regard to the transnational character, Abbott (2012) regards initiatives transnational when they are active in more than one country and include private actors and/or subnational units of governments. Similarly, Bulkeley *et al.* (2012) define the transnational character as a phenomenon working across one national border, involving at least one nonstate actor and explicitly addressing the transnational environmental issue at hand. Eberlein *et al.* (forthcoming) also stress that transnational governance initiatives should cross national borders and involve an exercise of a significant degree of authority by nonstate actors. In sum, transnational governance initiatives should invoke an impact beyond a national border and involve one, if not more, nonstate actor.

In a similar fashion, these scholars collectively seem to point to the regulatory character of the institutional characteristics of the initiatives. According to Abbott (2012), these institutional characteristics influence the ability and authority of initiatives to steer target actors towards collective goals. He argues that the initiatives engage in regulatory standard setting (Abbott and Snidal, 2009a; 2009b; 2010) as the initiatives mostly produce voluntary norms of conduct, created mostly by nonstate actors and addressing nonstate actors more than states. In a similar vein, Eberlein *et al.* (forthcoming) emphasize how transnational governance initiatives should focus on organized and sustained attempts for behavioural change of target actors. Such changes help to solve collective problems by setting rules or norms, and appropriate tools and techniques for their implementation and enforcement. Bulkeley *et al.* (2012) adopt a much broader definition of the regulatory character by claiming that transnational governance initiatives should explicitly steer a certain constituency of actors towards specific ends. A comparable general definition is provided by Bitzer *et al.* (2012), stating that the transnational governance initiatives should come up with institutionalized forms of a collaboration in which actors either provide or protect collective goods.

The definition used in the thesis is for the most part in line with the definitions presented by these scholars and consists of the following items. First, the transnational governance initiatives should explicitly focus on a sustainable transformation of the supply chain of one or more conflict minerals, rather than focusing on a more sustainable production of metals or minerals in general. In addition, the initiatives should operate or cause an impact beyond a single national border. Second, the initiatives should involve transnational actors in some stage of the governance process, whether

it is in the development or in the implementation of an initiative. Third, the initiatives should engage in norm or standard setting with the aim of organizing and steering targeted actors towards collective action. The definition applied here comes closest to the definition of Bulkeley *et al.* (2012). One of the implications of these selection criteria is that a broad set of initiatives can be included in the database of conflict mineral initiatives, both in terms of actor type and governance mode of the initiatives. Another implication is that decentral conflict mineral initiatives, such as municipal conflict mineral legislative initiatives, are omitted as their implementation, nor their impact, goes beyond any national border. With these selection criteria, the research focuses on 20 of 36 identified initiatives. The remaining initiatives range from outright unilateral centralized law to voluntary industry standards, which are discussed more extensively in the development of conflict minerals governance section.

### 2.2.2. Analyzing institutional characteristics of transnational governance initiatives

The previous paragraph showed that there is a significant amount of uniformity among researchers in defining transnational governance initiatives. However, a more diffuse picture arises when attention is shifted to particular institutional characteristics that have been ascribed to transnational governance initiatives. Most of the research in this field is of a descriptive nature and many authors are inspired by a move away from the dominant case study approach. They argue for a need to analyze multiple transnational governance initiatives at the same time, including their institutional characteristics (Abott, 2012; Bulkeley *et al.*, 2012; Hoffmann *et al.* 2011).

Although not focusing on transnational governance initiatives, Driessen *et al.* (2012) provide a framework for differentiating between different modes of environmental governance, which could also be applied to categorize different transnational governance initiatives. Their differentiation of environmental governance modes is based on actor characteristics, institutional characteristics, and content features. These describing features can equally be applied to study the characteristics of transnational governance initiatives, because they are manifestations of environmental governance modes. The authors distinguish between centralized governance, decentralized governance, public-private governance, interactive governance, and self-governance modes. Many transnational governance initiatives fall in the latter three categories, as nonstate actors are usually influential in the decision making of these type of initiatives. Some also fall in the centralized governance category, when state governments or agencies are most influential in cooperating with nonstate actors.

Focusing more specifically at transnational governance initiatives, Abbott (2012) categorizes 68 transnational climate change initiatives according to their constituent actor identity by placing them in a so-called governance triangle. Each point of the triangle reflects one of the three governance spheres in society: state, market, and civil society. The placement of a transnational climate initiative then depends on the share of every actor group in the initiation, governance, and implementation of the transnational climate initiative. A second characteristic is the principal activity of each initiative. Abbott (2012) distinguishes between rule making and implementation; operational activities, such as standard setting, financing, and information sharing and networking. In his analysis, Abbott (2012) analyzes the transnational climate change arena in terms of regime complex theory. He proposes to support and steer initiatives that further global public interests by means of 'orchestration', which is discussed later on in this section, in order to benefit from institutional complexity.

In studying 60 transnational climate change initiatives, Bulkeley *et al.* (2012) explore the type

of actors that initiate transnational governance initiatives and the actors at which the initiatives are targeted. Furthermore, they identify governance functions exercised by the initiating actors: capacity building, information sharing, direct action, monitoring and certification, provision of funding, target setting, and rule setting.<sup>5</sup> The authors further look into the origin of actors (North or South), the type of governance instruments used (hard or soft), and the issue focus. In their conclusion, the authors point out “the importance of considering patterns emerging across different types of initiatives and the relationships between them as critical in shaping this emerging governance landscape” (Bulkeley *et al.*, 2012: 609).

Hoffmann (2011) characterizes 58 transnational climate initiatives on their date of initiation, geographic location, the initiating and implementing actors, the activities undertaken, the governance functions, and the roles of the initiatives in climate change governance. With geographic location, Hoffmann (2011) does not only try to characterize the location of the initiatives’ initiation (North or South), but also its operational focus ranging from local to international to multi-level. The distribution of initiating and implementing actors distinguishes between states, substates, municipalities, NGOs, companies, individuals, and multiple actors. Hoffmann (2011) further characterizes the issue areas that the transnational climate initiatives focus on and their so-called core functions, consisting of networking, direct action, and planning and oversight. Here, networking refers to interacting constituent members with the goal of information diffusion, while planning refers to preparing actors for the implementation of goals. Direct action, on the other hand, stands for taking measures among members themselves, such as emission reductions. Lastly, the planning and oversight function means to gauge member activities, including monitoring and enforcement of governance mechanisms. Interestingly, Hoffmann also characterizes different roles of initiatives. Networkers mostly focus on fostering information exchange, while infrastructure builders set up systems to monitor and track progress. Voluntary actors take voluntary action to achieve a sustainability goal and, lastly, accountable actors set up initiatives that perform all key governance functions of networking, direct action, and planning and oversight.

### **2.3. Transnational governance initiatives interaction**

In comparison to transnational governance studies, the study of transnational governance interactions is a more specific and rather modest field of study. Nevertheless, transnational governance interaction increasingly gained more attention by scholars during the past years and developed out of regime complexity theory. Although only a few studies make an attempt at explicitly studying transnational governance interaction, they focus on a mere handful of cases. More systematic, multiple-*N* attempts at studying transnational governance interaction have not been performed yet.

The build-up of this part starts with a more theoretical part, followed by an analytical discussion of transnational governance interaction studies. The first part focuses on regime complexity literature and how a regime complexity situation might influence interaction and performance of transnational governance initiatives. The second part outlines two approaches to the study of transnational governance interaction: the governance process approach and the social network approach. Where the governance process approach represents a more agency-oriented approach, the social network approach looks for more structural explanations in the network

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<sup>5</sup> Bulkeley *et al.* (2012) distinguish between international organizations, national governments, regional governments, local governments, companies, business associations, environment NGOs, foundations and community-based organization.

structure of the conflict minerals governance arena. Both approaches help to map how conflict mineral initiatives interact with one another and how initiatives and their interaction develop over time.

### *2.3.1. Regime complexity theory*

Transnational governance interaction theory is mostly dominated by regime complexity theory, even though regime complexity theory does not pretend to explain transnational governance interaction alone. Regime complexity theory is concerned with the analysis of institutional interaction or interplay in general, addressing the effects that institutions have on one another and proposing pathways and causal mechanisms that help to explain interaction effects (Gehring & Oberthür, 2008, 2009; Oberthür & Stokke, 2011). In a situation of regime complexity there is no single unified body of hierarchically imposed rules governing a transnational governance arena, but rather a set of parallel or overlapping institutions instead (Alter & Meunier, 2009). Traditional regime complexity literature mostly focuses on interstate regimes and is mostly concerned with regimes that promulgate legally binding rules (Aggarwal, 1998; Alter & Meunier, 2009; Helfer, 2004; Oberthür & Gehring, 2011; Raustalia & Victor, 2004). These traditional studies focused on nesting, a relationship in which one institution is the principal over other agents and can solve any rule conflict between them (Aggarwal, 1998).

However, Raustalia and Victor (2004) observed that separate, nonnested regimes began to overlap within one governance arena. Observing this, Raustalia and Victor (2004) were the first to introduce the concept of regime complexity, which they term as “an array of partially overlapping and nonhierarchical institutions governing a particular issue-area” (Raustalia & Victor, 2004: 279). The characteristics of such a regime complex consist of a “horizontal, overlapping structure and the presence of divergent rules and norms” (Raustalia & Victor, 2004: 305). The division between hierarchical regimes, on the one hand, and nonhierarchical and nonexclusive overlapping regimes, on the other, continues to dominate regime complexity theory (Abbott, 2012). More recently, Alter and Meunier (2009) even add a third category of parallel regimes, where there is no formal or direct substantive overlap and where institutions are consequentially not part of a larger regime complex.

The intergovernmental conception of regime complexity later became the subject of criticism. Auld & Green (2012) criticize the regime complexity concept for its narrow focus on public actors and not considering the role of nonstate actors in regime complexity. According to Auld & Green (2012), private actors are also contributing to increasing institutional complexity and possess unique qualities compared to intergovernmental actors. A second critique is that regime complexity scholars do not specify conditions under which regime complexity leads to positive or negative outcomes. In addition to this critique, Abbott (2012) satirizes the dominant focus on regimes which mostly promulgate legally binding rules, which has little to say about the regulatory practices of voluntary standard setting.

In light of this critique, Keohane and Victor (2011) make an attempt at broadening the scope of the regime complexity concept, proposing a continuum of governance structures that features a single integrated institution with comprehensive rules, at one end, to a fragmented governance arrangement without an identifiable core and with, at the most, weak linkages among individual institutions, at the other end. Regime complexity is then close to the middle of the continuum and can be “marked by connections between the specific and relatively narrow regimes but the absence of an overall architecture or hierarchy that structures the whole set” (2011: 8). The components of a

regime complex are not nested, nor do they need to be overlapping as long as they are 'loosely connected'. This broader definition of regime complexity theory shifts the focus from the specific relationships of nesting and overlap towards the degree of fragmentation among organizations and standards. It also shifts the focus to the causes and effects of fragmentation, and to ways of dealing with fragmentation within a regime complexity situation for which different strategies are proposed (Abbott, 2012). Keohane and Victor's (2011) definition therefore better suits the diversity of actors, interests, issues, governance mechanisms, et cetera, related to contemporary transnational environmental governance than the interstate situation in traditional regime complexity literature. In this context, the range of conflict minerals governance initiatives are defined here as a part of a regime complex that is marked by certain functional connections but without an (official) overarching governance architecture that organizes and structures the set of initiatives.

### *2.3.2. Regime complexity and performance*

Contemporary regime complexity theory identifies several positive and negative consequences of institutional diversity (Abbott, 2012). However, up to now, there exists no consensus on the influence of regime complexity on transnational governance outcomes.

One strand of literature points to negative consequences of regime complexity, where a great diversity of initiatives may lead to unproductive outcomes. Most of the negative consequences refer to duplication, a lack of coordination, conflicts arising from rule inconsistencies, and cross-institutional political strategies in which actors exploit governance diversity to pursue self-interested goals (Alter & Meunier, 2009; Eberlein *et al.*, forthcoming; Overdevest & Zeitlin, 2012). Most negative consequences of regime complexity are related to competitive incentives resulting from the existence of multiple initiatives. Competition can lead to turf battles, duplicative programmes, and failure to coordinate efforts among institutions and actors. Furthermore, competition might lead to the use of so-called 'cross-institutional strategies' by the involved actors. The cross-institutional strategies consist of forum shopping, regime shifting, and strategic inconsistency. Forum shopping refers to a strategy where actors select "from among a set of institutional venues in hopes of obtaining a decision that will advance their own specific interests" (Overdevest & Zeitlin, 2012: 2). International regime complexity fosters the number of forums where actors can 'shop', because it contributes to rule fragmentation and ambiguity (Alter & Meunier, 2009). The result might be a race to the bottom situation, where standards are increasingly relaxed over time. In regime shifting, actors attempt to move the governance agenda of a specific issue from one institution to another to reshape the global set of rules in their advantage (Helfer, 2004). In case of strategic inconsistency, actors try to exploit contradictions between overlapping institutions to weaken the effect of existing disadvantageous rules (Raustalia & Victor, 2004). Regime complexity also increases the possibility of unintentional reverberations, which refers to a situation where changes in one institution result in unintended effects in parallel domains. Actors may shift their preferences when they meet and inform each other about their experiences in multiple forums. Regime complexity can also make it harder to pinpoint the institution or actor responsible for a given issue, which undermines accountability. Exiting a regime through noncompliance, regime shifting or withdrawal is easier under regime complexity (Alter & Meunier, 2009). Lastly, the fragmentation associated with regime complexity could increase transaction costs for private actors that must decipher multiple standards, methodologies, and programmes (Abbott, 2012). In sum, this particular strand of literature suggests that a proliferation of governance schemes leads to an overall lack of effectiveness of transnational

governance initiatives.

At the same time, recent regime complexity literature also stresses the potential positive consequences from the existence of multiple initiatives, arguing that the same competitive incentives might also lead to positive outcomes. Regime complexes might promote innovation and experimentation, as well as more flexibility across issues and adaptability over time than a hierarchical system of rules imposed by a monopolistic international institution (Keohane & Victor, 2011; Sabel & Zeitlin, 2008; Overdevest & Zeitlin, 2012). Especially in the implementation stage, there is much room for experimentation with different solutions to the ambiguities and inconsistencies that arise from divergent rules and interests (Alter & Meunier, 2009; Raustalia & Victor, 2004). Apart from experimentation, the existence of multiple initiatives also allows for fine tuning standards and programmes to local conditions. Ultimately, such a development might result into a race to the top, where initiatives start to mimic the more ambitious standards of their peers. Over a longer period of time, it may lead to the emergence of clubs or groups, binding like-minded participants in voluntary initiatives. Abbott (2012) suggests such clubs could show more willingness towards rigorous standards and procedures, could set social benchmarks against which other initiatives are judged and are more flexible to changing conditions than unitary systems. In a similar vein, although focusing on interstate regimes only, Alter and Meunier (2009) argue how regime complexity increases the number of international venues, boosting the number of occasions for actors to interact with one another, which in turn creates a small group environment. A small group environment stimulates deeper connections among actors, fostering trust that induces collective problem solving and less costly risks. This, in turn, facilitates innovation and increases the reputation of initiatives. Alter and Meunier (2009) further stress that regime complexity heightens the role of nonstate actors that help states manage rule and institutional confusion, and the value of loyalty, as activities of actors will affect the perceptions of others (e.g., states, citizens, firms) in other arenas. Furthermore, Smith and Fischlein (2010) argue that competition among rival governance networks results in rule convergence, rule innovation, and creative solutions to social problems. In relation to that, Meidinger (2008) discusses how competition for standard acceptance leads to more transparent, participatory processes responding to public demands. Making more use of empirical research, increased interactions between cacao partnerships have proven to reinforce the capacities of individual partnerships (Bitzer *et al.*, 2012). A similar trend has been observed in the sustainable forestry sector, where public pressure seems to have ratcheted up transnational forestry standards through regulatory competition (Overdevest, 2004, 2010; Overdevest & Zeitlin, 2012).

By way of conclusion, the thesis can be situated in the regime complexity theory that emphasizes positive consequences of regime complexity on the performance of the regime. The assumption is that interaction among the different conflict mineral initiatives plays a significant role in evading the pitfalls of regime complexity. The results of the thesis might therefore help to further advance regime complexity theory.

### *2.3.3. Improving performance in a situation of regime complexity*

The debate on both the positive and negative consequences of regime complexity is quite elaborate. More limited knowledge exists, however, about the conditions under which actors can reap the benefits of regime complexity and minimizing its negative consequences at the same time (Auld & Green, 2012). Several scholars have explored how transnational governance interaction should be steered to increase the performance of transnational governance initiatives. Abbott and Snidal (2009b, 2010; Abbott *et al.*, 2011; Abbott, 2012) have advanced this claim the most. These authors

stress the necessity to orchestrate transnational governance initiatives by governments or international organizations to further global public interests. Orchestration refers to different ways of mobilizing and working with private actors and institutions to achieve regulatory goals, such as fostering voluntary and collaborative programmes, convening and facilitating private collaborations, convincing firms and industries to regulate themselves, developing private capacities, negotiating regulatory targets with firms, and providing incentives to firms for attaining those targets (Abbott & Snidal, 2010).

In more recent contributions, Abbott and Snidal (2012; Abbott, 2012) further identify 'regulatory cooperation' or 'regulatory collaboration' as a steering strategy. Regulatory cooperation refers to ways in which international organizations and states can engage with private actors and institutions to achieve regulatory goals. In case of regulatory collaboration international organizations or states directly engage with private actors to influence their behaviour. In regular cooperation, however, international organizations or states engage with intermediaries, such as private, multi-stakeholder initiatives, to ultimately influence behaviour of private actors. In this context, Gulbrandsen (2012) found that state responses to the emergence of certification schemes in transnational forestry and fisheries governance resulted in a legitimization of certification as a policy tool, helping them to grow and consequently make them more effective.

Glasbergen (2011), on the other hand, argues that metagovernance by private actors is one of the governance mechanisms that could help to increase performance of transnational governance initiatives. Metagovernance can be described as the regulation of self-regulation (Sørensen, 2006) and should be understood as a structuration of interactions between classic governmental rules and private and public-private regulation, as part of an orchestration effort (Glasbergen, 2011: 194). However, Glasbergen (2011) criticizes the focus on the state, or international organizations for that matter, as the central actors of metagovernance. He argues that transnational governance initiatives can become more effective by metagovernance of private actors, without the need of governmental intervention. Glasbergen (2011) identifies conditions under which metagovernance roles by private actors can be successful. The private actors should be inclusive, bringing in the most important stakeholders from civil society and business from the North and the South; they should be creating legitimacy through a balanced, open and accountable decision making process; they should keep contact with scientists and involve them in the development of standards; they should base their activities on strategic thinking which includes networking and building relationships with relevant governments at all levels (Glasbergen, 2011: 203). In this context, Bitzer *et al.* (2012) describe how the World Cacao Foundation performed a metagovernance role in the cacao sector, thereby enhancing the positive effects of interaction between different cacao partnerships. The World Cacao Foundation helped to steer cacao partnerships to broad sustainability goals, improved conditions at the production level, and was able to increase legitimacy towards actors outside of the cacao governance network. The authors argue how a metagovernance role of the World Cacao Council was in that regard "a prerequisite for the linkages between partnerships to unfold an impact beyond the reinforcement of individual partnerships capacities" (Bitzer *et al.*, 2012: 370).

In a somewhat different account, Overdevest & Zeitlin (2012) criticize regime complexity theory for not delineating a governance architecture in which favourable conditions, such as experimentation and diversity, are encouraged. They argue that regime complexes are more effective when they incorporate elements of the experimentalist governance architecture, which puts emphasis on benchmarking and learning processes. Experimentalist governance typically occurs under conditions of strategic uncertainty as well as under a polyarchic or multi-polar power

distribution. Under strategic uncertainty, actors do not know their goals or how to achieve their goals beforehand. In a polyarchic power distribution, no single actor is capable of enforcing a unilateral solution, which seems to fit to a situation of regime complexity. The architecture consists of broad participatory goal setting; decentralized experimentation with alternative implementation approaches; performance monitoring, information pooling, and peer review; and revision of goals, metrics, and procedures based on deliberative comparison of experience (Overdevest & Zeitlin, 2012; Sabel & Zeitlin, 2008). All these governance mechanisms can be provided through a variety of institutional forms by different combinations of public and private actors (Sabel & Zeitlin, 2008). In their case study, Overdevest and Zeitlin (2012) show how the EU and the US developed two transnational forestry governance initiatives architectures to combat illegal logging, particularly in developing countries. In addition, they showed how their interactions generated an effective regime of which the core elements are experimentalist in their institutional characteristics. Overdevest and Zeitlin (2012) then go on to argue that the initiatives increase their capacity for coordinated learning by combining local experimentation with performance monitoring, information pooling, and deliberative review of successes and failures. This type of transnational forestry governance has already resulted in a significant reduction in illegal logging (Overdevest & Zeitlin, 2012). A Chatham house study of 12 countries, together accounting for 50 percent of illegal wood production estimates, showed a 22 percent reduction in illegal logging between 2002 and 2008, while imports of illegally sourced wood also dropped 30 percent from their peak (Lawson & MacFaul, 2010).

All studies point to the importance of interference by either state agents, international organizations, or by private actors themselves if the benefits of transnational governance initiatives under conditions of regime complexity are to be reaped. Overdevest and Zeitlin (2012) complement these notions by proposing a governance setting in which the steering mechanisms are further fostered, pointing to the importance of institutional design. In any case, the literature suggests that a proper study of transnational governance initiatives should involve the identification of involved actors and their particular role in the initiatives' development. Many times, re-regulatory actions by these involved actors are pivotal for the success of transnational governance initiatives. These insights fuel into the analysis of conflict mineral initiatives, which is extensively discussed in the next paragraph.

However, some questions remain open in the current theoretical debate. It remains unclear how institutional characteristics can be shaped through interaction in order to arrive at favorable conditions. In addition, the literature is less illuminating about the desired character of interaction between transnational governance initiatives, nor about successful interaction pathways or trajectories. The research question aims to address these open questions. However, as it is the aim of the thesis to address transnational governance interactions in a systematic way, the next paragraph introduces two different approaches to analyze interaction.

#### **2.4. Analyzing transnational governance initiatives interaction**

The previous paragraphs showed how interaction is important in reaping the benefits of regime complexity. In the following paragraphs, the focus shifts to theory on transnational governance interaction analysis. Analytical approaches towards the study of the transnational governance interaction remain very rudimentary and have only emerged during the past few years, despite a recognition of the importance of interaction by transnational governance scholars (Bulkeley *et al.*, 2012). One of the main arguments of the thesis is that there is a lot of potential and value in addressing transnational governance interaction more systematically. In doing so, knowledge about



the development, role, and drivers of success of transnational governance initiatives can be greatly enhanced. A second premise of the thesis is that a complex phenomenon, such as transnational governance interaction, should be approached in a methodological diverse way to arrive at valid results. This implies that the result of interaction is studied in several ways. The first part outlines the recently introduced analytical framework for the study of 'transnational business governance interactions' (Eberlein *et al.*, forthcoming), labeled here as the 'governance approach'. The second part introduces the network approach, which has previously been used by Bitzer *et al.* (2012) to study interaction between sustainable cacao partnerships.

#### 2.4.1. Governance process approach

The previously presented theories point out some conditions that enhance the performance of transnational governance initiatives in a situation of regime complexity. However, they do not explicitly make clear how transnational governance researchers should systematically analyze interaction. Only very recently, Eberlein *et al.* (forthcoming) proposed an analytical framework to study transnational business governance interactions. Transnational business governance is in its essence not different from the concept of transnational governance. It focuses on transnational governance initiatives that "take diverse forms and involve heterogeneous actors – from individuals to organizations, technical experts to political entrepreneurs, NGOs to business firms to government agencies" (Eberlein *et al.*, forthcoming: 7). It is typically characterized by varying compositions of public and private actors who possess varying degrees of regulatory capacities and who can act in very diverse institutional contexts. With regular capacities they refer to financial resources, organizational capacity, expertise, authority and legitimacy, and the strategic position. Each of the public and private actors seeks to influence the allocation and exercise of regulatory authority and each performs a range of regulatory tasks throughout the entire policy process, from the point of agenda setting and rule formation to compliance promotion and sanctioning. Each of these steps requires a high degree of interaction whether it is within a transnational governance initiative, between transnational governance initiatives, or between transnational governance initiatives and state-based regulation and agents.

Eberlein *et al.* (forthcoming) argue that interactions involve many different actors, can be driven and shaped by different factors, differ in character, have varied effects on regulatory results, and exhibit temporal dynamics. First of all, transnational governance initiatives bring together a wide range of actors that perform different roles at different points in the governance process. Transnational governance interaction analysts must therefore specify different categories of actors. Also, analysts need to indicate the level of analysis they are operating in. At the micro level, individuals and organizations interact to develop and oversee transnational governance initiatives. At the meso level, interactions take place among transnational governance initiatives themselves and with governmental institutions. Finally, at the macro level, interaction of whole regulatory complexes is analyzed.

Second, a proper analysis of transnational governance interaction focuses on factors that drive and shape interactions. In this context, Eberlein *et al.* (forthcoming) refer to the structure of the governance problem, such as the geographic distribution of natural resources. Several other factors are found at the actor level, like actors' interests, values, perceptions, knowledge, and resources, but also industry characteristics, which include ownership concentration, value chain integration et cetera. At a more metaphysical level, interactions can be influenced by social, economic, technological, and political structures. Lastly, interactions are conditioned by ideational factors,

including cultures, discourse, mentalities, and epistemic communities.

Third, interactions can be studied as outcomes themselves or as units that cause an effect. When interactions are studied as outcomes, research should be focused on factors driving and shaping interactions. When interactions are the factors causing different kinds of effects, the focus should lie on the ways in which interactions affect transnational governance initiatives, regime complexes and the performance of both initiatives and regime complexes. At any time, mechanisms and pathways of interaction should be identified (Hedström & Swedberg, 1998). Eberlein *et al.* (forthcoming) identify the site of interaction, that is the institutional setting in which interaction takes place, as important in determining which mechanisms and pathways of interaction are possible. Such site of interactions include organizations, markets, networks, and (epistemic) communities. Although explicit definitions are not provided, mechanisms are governance tools and techniques that facilitate and shape interaction, while pathways refer to the different ways of development of transnational governance initiatives. The authors then go on to argue that these mechanisms and pathways, including metagovernance, standard convergence, organizational cross-membership, and so on, manifest themselves at different points in the governance process.

Fourth, Eberlein *et al.* (forthcoming) distinguish between four different characters of interaction, which are competition, coordination, cooptation and chaos. Naturally, transnational governance interaction may exhibit several different characters of interaction at the same time.

Fifth, for the effects of transnational governance interactions Eberlein *et al.* (forthcoming) suggest to focus on capacity and performance of either transnational governance initiatives themselves or entire transnational regime complexes. However, the authors do not delineate how to measure or qualify capacity and performance of transnational governance.

Sixth, interactions should be studied as temporal dynamics, as the character of interaction can change during the development of transnational governance initiatives, just as it can change the character of transnational governance initiatives themselves. Initiatives may converge or diverge in institutional design, membership or standards. They may diffuse ideas and practices, resulting in mutual adaptation and learning. Interactions can result in the concentration or fragmentation of transnational governance regime complexes, or in the proliferation or demise of individual transnational governance initiatives. The transnational governance standards may become more stringent, or alternatively more relaxed. Eberlein *et al.* (forthcoming) note that these processes must be accounted for and probed in a theoretical perspective in an analysis of transnational governance interaction.

According to Eberlein *et al.* (forthcoming) there is no specific theory or methodology that is capable of dealing with the complexity associated with the study of transnational governance interaction. Researcher may draw from both structuralist as well as agency approaches. Analysis of transnational governance interaction may also focus on only some of the analytical framework elements, as described above. The next paragraph outlines the complimentary network analysis approach that is operationalized next to the governance process approach.

#### 2.4.2. Network analysis approach

Policy networks can be defined as “*organized entities* that consist of actors and their relations engaged in processes of collective action for joint problem solving” (Sandström & Carlsson, 2008: 498; italics in original). The actors in policy networks can be individual people, businesses, or organizations. Their relations can consist of sharing information, resources, materials, services or

social support. The policy network approach is often used in policy analysis and starts at the notion that networks have become increasingly important in governance, fostered by the increasing political complexity that the modern state needs to face. Many contemporary governance problems are perceived as too multifaceted to solve with traditional, command-and-control government. More specifically, many of today's global environmental problems are characterized by their interdependent and cross-scale nature, transcending boundaries between different levels of government, policy sectors, and indeed, states (Berkes, 2002; Henf & Scharpf, 1978; Koppenjan & Klijn, 2004; Scharpf, 1991). As a consequence, the policy network approach argues that networks are increasingly considered as a necessity to deal with collective action problems in any given policy area. Naturally, most policy network studies are concerned with deepening the understanding of how cross-boundary or transnational networks operate and how their characteristics might affect their success in order to improve the effectiveness of policymaking (Agranoff & McGuire, 2001; Hanf & O'Toole, 1992; Hanf & Scharpf, 1978, O'Toole, 1997). Such research has shown that policy network formation is motivated by mutual resource dependency, common problem definitions or a common discourse between actors (Benson, 1975; Sabatier & Jenkins-Smith, 1993). Networks are then characterized by an absence of formal authoritative control and cooperative bargaining processes to foster collective action in conditions of pluralist interests, views, and meanings (Bitzer *et al.*, 2012: 358), very similar to a situation of regime complexity and to conditions that foster experimentalist governance (Sabel & Zeitlin, 2008).

It is only a small step from networks to transnational governance initiatives, which can be regarded as networks themselves. The initiatives often gather actors from different societal spheres who interact through collaborative, nonhierarchical relationships with which the actors share resources, risks, and expertise (Bitzer *et al.*, 2012). Many individual transnational governance initiatives have also been analyzed as networks which have been labeled as Global Public Policy Network (Witte *et al.*, 2000), Global Action Network (Waddell, 2003) or multisectoral networks (Bäckstrand, 2006). Pooling their capacities and resources, it is argued that the transnational governance initiatives constitute more than the aggregation of actors alone (Sandström & Carlsson, 2008). The interactions among the actors contribute to better communication, to norm creation, and exchange of information and resources (Diani & McAdam, 2003; Keck & Sikkink, 1998; Stone, 2002). The interactions therefore facilitate collective action, while at the same time being a result of collective action (Glasbergen, 2010; Della Porta & Diani, 1999).

At the same time, the collection of transnational governance initiatives themselves may form a network as well. Bitzer *et al.* (2012) explore this possibility by performing a network analysis on a network of partnerships in the cacao sector. They explore how the partnerships link to one another, in which issue area they compete or collaborate, and the ways in which linkages reinforce the goals and activities of the partnerships. Their results show that interactions among different partnerships indeed lead to a reinforcement of the capacity of partnerships. In addition, the research shows that metagovernance further enhances the positive influence of partnership interactions.

Sandström and Carlsson (2008) and Sandström and Rova (2010), on the other hand, adopt a more structural approach towards interaction by making use of social network analysis. The method of social network analysis provides techniques to map and quantify social relations, in an attempt to show how network structure influences network performance. In doing so, it is argued that network structure influences the behavior of actors and the quality of their interactions, which in turn affects the performance of a governance system (Knoke, 1990; Marsh & Smith, 2000; Sandström & Rova, 2010). The social network research shows that an efficient and innovative policy network should

consist of heterogeneous group of actors that are centrally and densely integrated (Sandström & Carlsson, 2008). Density refers here to number of connections in a network, while centralization refers to the level of hierarchy in a network, with mostly one actor serving as a connection center. Although both Sandström and Carlsson (2008) and Sandström and Rova (2010) focus on local policy networks, there can be no clear objection found to apply social network analysis to interacting transnational governance initiatives. Such a network approach accommodates the exploration of patterns in and quality of interaction between transnational governance initiatives that could help explain the performance of conflict minerals governance (Sandström & Rova, 2010). When both the governance process approach and network approach lead to similar results, the case for a positive influence of certain interactions among conflict mineral initiatives on their performance becomes stronger. What still needs to be established, then, is what a 'good' performance exactly entails. The following section therefore discusses how the performance of conflict minerals governance is evaluated.

## **2.5. Evaluating transnational governance initiatives interaction**

As the study of transnational governance initiatives interaction is beginning to be picked up by scholars in the field of transnational governance, the question of how to assess the effectiveness of interactions remains (Jordan & Bulkeley, 2012). Some scholars have focused on the question whether competitive interactions lead to a strengthening or weakening of standards (e.g. Cashore *et al.*, 2004; Overdevest, 2004; Smith & Fischlein; Bartley, 2007). Other studies focus more on the question why significant differences persist between different initiatives, despite interaction (e.g. Dingwerth & Pattberg, 2009; Bartley, 2011). However, these studies do not provide any indications on how to systematically study the effectiveness of transnational governance initiatives interaction.

In general, transnational governance interaction studies emphasize the difficulty of measuring the effectiveness related to initiative interaction (Abbott, 2012; Bulkeley *et al.*, 2012; Eberlein *et al.*, forthcoming). Beisheim and Campe (2012) propose to think in terms of output, outcome and impact (Underdal, 2004). Eberlein *et al.* (forthcoming) also acknowledge the value of using this division to serve as a starting point for evaluation, but also highlight the difficulty of isolating and quantifying outcome and impact with the many variables that are at play in transnational governance interaction. Taking into account that knowledge about transnational governance initiatives interaction is limited up to now, these authors propose to take one step back and focus first on the effect of regulatory performance of the transnational governance regime. Such an approach would make it necessary to return to the claims of regime complexity theory where conditions for effective performance include steering mechanisms and a governance architecture that fosters experimentation, flexibility, learning, and so on. However, current studies lack the concepts and indicators for the assessment of the performance of transnational governance initiatives and governance arenas that could help in guiding the empirical analysis.

Outside of the academic realm, the United Nations (UN) principles of good governance and the International Social and Environmental Accreditation and Labeling (ISEAL) Credibility Principles could be used to provide a basis for the development indicators for the performance of transnational governance initiatives. The United Nations (UN) principles of good governance form the basis for the decision making of major donors and international financial institutions about allocating aid and loans (UN, 2013). The International Social and Environmental Accreditation and Labeling (ISEAL), on the other hand, is a private metaorganization that was founded by several private standard setting

organizations with the aim of developing and promoting a global reference for standard development. Its Credibility Principles aim to improve the performance of transnational sustainability initiatives, to assist users of standards to assess the credibility of standards they are engaging with, to communicate what makes standards credible, to reward good practice, and filter out greenwashing standards (ISEAL, 2012). The principles of both organizations are inspired by a normative claim. It is assumed that the incorporation of normative principles such as accountability, fairness, legitimacy, participation and transparency, in the development and operation of transnational governance initiatives foster their performance by increasing clarity, consensus, knowledge exchange, mutual learning, target setting, and so on. The normative view on good governance comes close to the claims underlying the experimentalist governance architecture, as discussed before, which indeed “provides an analytical framework for evaluating transnational governance interactions in regime complexes” (Overdevest & Zeitlin, 2012: 25). In the analysis, the development of institutional characteristics is compared to indicators based on a synthesis of both principal frameworks. Both the UN principles of good governance and the ISEAL Credibility Principles assist in evaluating whether interaction induces progress towards a good governance performance and in establishing whether there is some orchestration or metagovernance pattern in the institutional characteristics development of conflict mineral initiatives.

### 3. Methodology

In order to answer the research question, the research moves away from the case study approach. Inspired by actor-network theory principles (Latour, 2005), conflict minerals governance is conceptualized as a network of interacting conflict mineral initiatives and their development over time. The research framework of the thesis is presented below in Figure 1. Essentially, the analysis of conflict minerals governance consists of two parts that together form the content of the conflict mineral initiative database (see Table 1). First, data is collected about institutional characteristics of the conflict mineral initiatives over time. Secondly, it is assessed whether certain institutional characteristics are the subject of interaction between different initiatives over time. The two assessments then form the basis of three further analysis procedures. First, patterns in initiatives characteristics development can be compared to patterns in interaction characteristics development to see whether there is a correlation between the development of interaction and institutional characteristics of conflict mineral initiatives. Second, based on the more structural social network approach, a network analysis is performed to assess the relationship between network structure and network performance. Lastly, a simple impact analysis is performed by analyzing the production figures of conflict-free minerals extracted by the investigated conflict mineral initiatives. Using these different methods to analyze the performance of conflict minerals governance, it possible to collect a richer and stronger set of evidence than by a mere case study alone (Yin, 2009: 63). The analysis focuses on 20 out of 36 identified conflict mineral initiatives, where their institutional characteristics and interaction characteristics serve as observations.

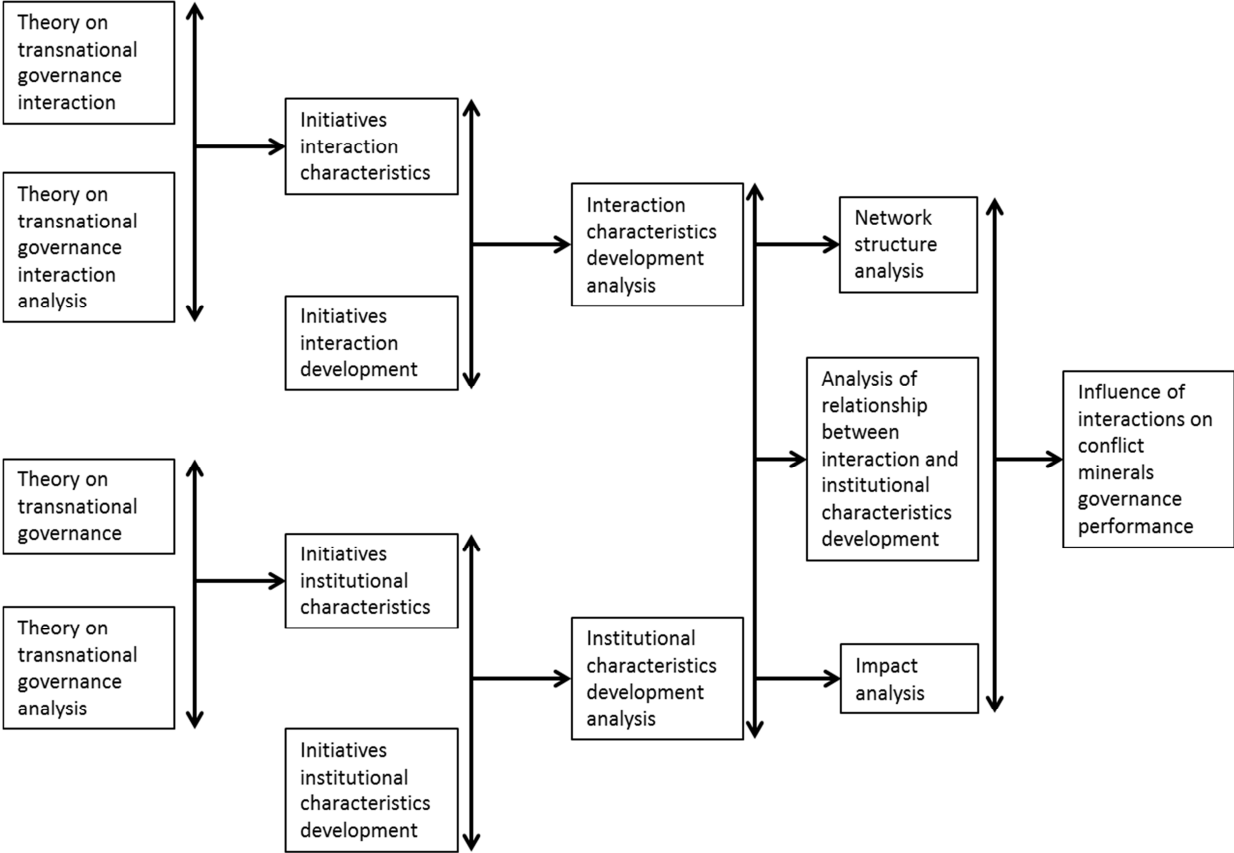


Figure 1 Research framework.

Centralized governance	Decentralized governance	Interactive governance	Self-governance
Canadian Trade in Conflict Minerals Act (CA)	State of California Transparency in Supply Chains Act (SB 657)	Conflict-Free Tin Initiative (CFTI)	ARM/FLO Fairtrade and Fairmined (FT/FM) Standard for Gold from Artisanal and Small-scale Mining (ASM)
Congolese Governance Initiatives (CGI)	State of Maryland Conflict Minerals Bill (SB 551)	Extractive Industries Transparency Initiative (EITI)	Automotive Industry Action Group (AIAG) Conflict minerals programme
EU International Task Force on Illegal Exploitation Of and Trade In Natural Resources in The Great Lakes Region (EU ITF)	City of Pittsburgh Proclamation on Conflict Minerals	OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas	Conflict-Free Smelter Early-Adopters Fund (CFS EAF)
Dubai Multi Commodities Centre (DMCC) Responsible Gold Guidance	City of St.Petersburg Resolution to Favor Products Free of Congo Conflict Minerals	Public-Private Alliance for Responsible Minerals Trade (PPA)	Conflict-Free Smelter Programme (CFS)
EU Transparency and Accounting Directives		Voluntary Principles on Security and Human Rights Initiative	Initiative for Responsible Mining Assurance (IRMA)
German Federal Institute for Geosciences and Natural Resources (BGR) Certified Trading Chains Programme			International Council on Mining and Metals Sustainability Framework
Growth with Governance in the Mineral Sector Project (PROMINES)			International Tin Research Institute Tin Supply Chain Initiative (ITRI)
International Conference of the Great Lakes Region's (ICGLR) Regional Initiative Against Illegal Exploitation of Natural Resources			Kemet Partnership for Social and Economic Sustainability (KEMET)
US Dodd-Frank Act, Section 1502 (US SEC)			London Bullion Market Association (LBMA) Responsible Gold Guidance
UN-EU Partnership on Natural Resources, Conflict and Peacebuilding			Partnership Africa Canada (PAC) Conflict-Free Gold
UN Security Council Resolutions			Responsible Jewellery Council's (RJC) Chain-of-Custody standards
			Responsible Sourcing Network (RSN) Conflict Minerals Programme
			Solutions for Hope Project (SfH)
			World Gold Council's (WGC) Conflict-Free Gold Standard

**Table 1** Overview of identified conflict mineral initiatives according to their governance mode (Driessen *et al.*, 2012). Disregarded initiatives based on the selection criteria, as outlined in the theory section, are marked in red.

### 3.1. Conflict mineral initiatives institutional characteristics

The first part of the analysis focuses on the institutional characteristics of conflict mineral initiatives. A template was designed featuring a synthesis of elements that are mentioned in the literature with which a conflict mineral initiatives characteristics database was created (see Table 2). The elements of the template first require to indicate some general information: the name of the initiative, its objective, and its implementation status, including its year of initiation. After this, the actor, content, and governance characteristics are addressed, as these features are expected to be most influential on the performance of conflict minerals governance. In deciding which elements to choose from the literature, elements that were referred to by multiple scholars gained preference, such as the elements of initiating actors and issue area (e.g. Bitzer *et al.*, 2012; Bulkeley *et al.*, 2012). However, relevance for the research topic was given higher preference. For instance, some elements from the literature were discarded as they were either too specific or too much related to the climate change issue. The latter was for instance the case with Hoffmann's (2011) actor role typology. In addition, a few elements were added by the author. The elements of supply chain focus and conflict mineral focus are inherent to the conflict minerals issue and therefore do not rely on a literature basis.

The actor characteristics consist of three items: initiating actors, involved actors and origin of actors. Initiating actors are actors that initiate the initiative and are categorized in different actor groups, based on Bulkeley *et al.* (2012). The involved actors refer to actors that are added to decision making processes of the initiative later on, either during the developmental, implementation, or monitoring and evaluation stage. Involved actors can be members of the initiative, formally consulted stakeholders, actors who are commissioned by the initiative to do research, et cetera. Regardless of their exact role, actors are labeled as involved actors when they play a certain, though formal, role in the decision making process of the conflict mineral initiative. The involved actors are then categorized in the same groups as in the initiating actors item. Furthermore, the origin of actors refers to the geographical basis of the actor groups, either initiating or involved in the conflict mineral initiative, and split up in developed (North) and developing (South) nations. Northern countries are defined as Organisation for Economic Co-operation and Development (OECD) member countries, while southern countries are considered as non-OECD members. Lastly, while many actor categories speak for themselves, some categories need some further explanation. Business associations are defined here as umbrella organizations for companies that mostly focus on one particular business sector. The International Tin Research Institute (ITRI) business association represents for instance the interests of the tin industry. Next, community-based organizations are understood as not-for-profit organizations that are based in the Great Lakes Region itself, characterized by a developmental or capacity building mission. Finally, research organizations can either be actors from the academic realm or from a consultancy and research institute environment.

Next to the actor characteristics, the content characteristics consist of the items conflict mineral focus, supply chain focus, operational focus, and issue focus. The conflict mineral focus refers to the four conflict minerals that are defined by the Dodd-Frank Act, Section 1502: coltan (mainly for tantalum production), cassiterite (mainly for tin production), wolframite (mainly for tungsten production), and gold (US Congress, 2010).

Furthermore, the conflict mineral supply chain can be divided in several stages. The analysis distinguishes between an upstream, downstream, and entire supply chain focus. This approach was



<b>Conflict mineral initiatives institutional characteristics</b>		
<b>General characteristics</b>		
Name		
Objective		
Implementation status		
<b>Actor characteristics</b>		
Initiating actors (Bulkeley <i>et al.</i> , 2012; Hoffmann, 2011)	International organizations	Nongovernmental organizations
	National governments	Community-based organizations
	Regional governments	Research organizations
	Local governments	Companies (up- or downstream)
	Business associations	Other conflict mineral initiatives
Involved actors (Bulkeley <i>et al.</i> , 2012; Hoffmann, 2011)	International organizations	Nongovernmental organizations
	National governments	Community-based organizations
	Regional governments	Research organizations
	Local governments	Companies (up- or downstream)
	Business associations	Other conflict mineral initiatives
Origin of actors (Bulkeley <i>et al.</i> , 2012; Hoffmann, 2011)	North	South
<b>Content characteristics</b>		
Conflict mineral focus	Gold	Cassiterite (tin)
	Coltan (tantalum)	Wolframite (tungsten)
Supply chain focus	Upstream	Entire supply chain
	Downstream	
Operational focus (Hoffmann, 2011)	Local	National
	Regional	International/transnational
Issue focus (Bitzer <i>et al.</i> , 2012; Bulkeley <i>et al.</i> , 2012; Hoffmann, 2011):	Environment	Traceability/chain-of-custody
	Society	Risk management
	Economy	Audit
<b>Governance characteristics</b>		
Governance mode (Driessen <i>et al.</i> , 2012)	Centralized governance	Interactive governance
	Decentralized governance	Self-governance
	Public-private governance	
Governance instruments (Driessen <i>et al.</i> , 2012)	Mandatory instruments (legislation, government standards, etc.)	Negotiated instruments (trading mechanisms, covenants, etc.)
	Incentive-based instruments (taxes, grants, etc.)	Voluntary instruments (private standards, certification, etc.)
Governance functions (Bulkeley <i>et al.</i> , 2012)	Capacity building	Provision of funding
	Information sharing	Target setting
	Direct action	Rule setting
	Monitoring and certification	

**Table 2** Conflict mineral initiative characteristics template.

chosen as several initiatives only focus on a specific part of the supply chain. Upstream refers here to supply chain stages within the Great Lakes Region. Starting from the smelter stage, the downstream supply chain starts, because this is the first stage where the minerals are processed into pure metals. Finally, the operational focus categorizes initiatives according to the geographical span of their activities.

The issue focus item is split in two parts. One part focuses on the sustainability issue focus of the initiative, concentrating on whether it focuses on the environmental, societal, and/or economical dimension of sustainability. The initiatives show an environmental focus when the environmental effects of mining are, at least partly, considered in the policy of the conflict mineral initiatives. Initiatives stressing, at least partly, human rights abuses associated with conflict mineral mining in their policies, receive a societal dimension label. Economic conflict mineral initiatives need to show, at least partially, a focus on improving the local livelihoods of the miners and/or on blocking the money flow from mining activities to rebel groups in their strategies. Obviously, initiatives can manifest multiple sustainability foci. The second part focuses more on the technical supply chain issue foci. Based on preliminary research and an International Telecommunication Union (ITU) report (2012), three main conflict mineral solutions were identified, namely: traceability and chain-of-custody, risk management, and auditing. Traceability and chain-of-custody refer to mechanisms to trace the point-of-source of minerals, e.g. the specific mine where the mineral was extracted, and focuses on the upstream supply chain. Risk management means the initiative engages in assessing, mitigating and managing human rights and conflict risks in the conflict mineral supply chains. In transnational governance jargon, this particular process of risk management is often referred to as 'due diligence'. These due diligence measures are usually taken in the downstream supply chain by companies processing the minerals. Lastly, initiatives can facilitate an audit in which an independent, third-party actor checks whether the initiative itself or its adherents (which are mostly companies) have taken appropriate measures to manage risk in the conflict mineral supply chain and lived up to their standards. Audits can be undertaken at both the up- and downstream level of the conflict mineral supply chains. At the upstream level, it could involve mine site inspections, while at the downstream level it could involve the monitoring of the implementation of due diligence measures. Again, the initiatives might show a focus on several of these technical supply chain issues.

The final items represent the governance characteristics of the initiatives and are identified using the three items of governance mode, governance instruments, and governance functions. The different governance modes are based on Driessen *et al.* (2012). The governance modes are distinguished on the basis of initiating actors in the governance sphere (state, society, and market) and the relations between these different actors. Self-governance refers to governance processes that have been initiated by market or civil society actors, which hardly involve any state participation. Interactive governance, on the other hand, can be initiated by any governance actor and is characterized by an equal power relationship among the three actors. Public-private governance occurs when state actors initiate agreements with market actors, such as state-industry covenants. A public-private conflict mineral initiative did not surface during the data collection. Decentralized governance is initiated by lower-level state actors, such as municipal or regional councils, where centralized governance is initiated by national state actors or international organizations. In both latter categories the state actors dominate the two other governance sphere actors.

Subsequently, the governance instruments can be linked to their respective governance modes. Mandatory governance instruments, such as legislation, belong to centralized governance, while voluntary instruments belong to self-governance. It is possible that conflict mineral initiatives

apply several instruments at the same time. It was for instance observed that the business initiative of Kemet Partnership for Social and Economic Sustainability uses voluntary conflict mineral guidance instruments, while at the same time providing funding for local development, which is an incentive-based instrument. In the analysis, the number of governance instruments is not taken into account, but rather the occurrence of any of the governance instruments in the institutional characteristics of the conflict mineral initiative.

Lastly, governance functions are added to get an understanding of the types of governance actions the initiatives perform to contribute to an end of conflict minerals. The governance functions presented in Table 2 are taken over from Bulkeley *et al.* (2012). Although Bulkeley *et al.* (2012) used this particular governance typology for climate change initiatives, it is also particularly applicable to conflict mineral initiatives. The first governance function of capacity building is defined as any activity of an initiative that aims to enhance the abilities, skills, and resources of governments and its people that are associated with institutional empowerment. The information sharing governance function is understood as sharing information on operational activities publically on a website. Furthermore, direct action refers to activities that aim to actually intervene in the current governance of conflict mineral supply chains in the Great Lakes Region itself, as opposed to mere campaigning or funding for conflict mineral supply chain intervention. The monitoring and certification item applies to initiatives that invoke some effort to monitor their own activities and the activities of their adherents on a regular basis, and where deemed important, deploy a certification mechanism. Next, the provision of funding implies that the initiative provides financial resources to fund activities that address the conflict minerals issue. Further, the governance function of target setting means the initiative sets itself a numerical goal, indicating an amount of extracted conflict-free minerals in a given year. Lastly, rule setting refers to any regulatory activity of the initiative, whether it sets standards, rules, or laws for their own adherents or for external actors. Naturally, initiatives can perform several of these governance functions at the same time.

The result is a template consisting of 13 items that was used to systematically map institutional characteristics of conflict mineral initiatives. The produced results are used to help answering sub question 1.

### **3.2. Conflict mineral initiatives interaction characteristics**

In the second part of the research, data are collected to categorize the different ways conflict mineral initiatives interact with one another during different phases in the governance process (see Table 3 for the analytical framework). The framework that is used to analyze interaction is largely based on the work of Eberlein *et al.* (forthcoming) and transnational governance interaction theory.

First, the governance process approach is applied, although it has been modified to make it fit to the conflict minerals issue. Partly also inspired by Vermeulen *et al.* (2010), it distinguishes between the development, implementation, and monitoring and evaluation phase. The development phase is understood as the governance process taking place between the moment an initiative starts to raise attention to the conflict minerals issue and the point in the process where it has drawn up a plan or an agenda to tackle the conflict minerals issue. Implementation then starts when initiatives start to execute their plan or agenda, while monitoring and evaluation starts at the first moment the initiatives reflect on their achieved results.

Second, several dimensions of transnational governance interaction are also incorporated. The categories used to identify the involved actors and the governance functions are the same as used for the conflict mineral database. Next, the interaction character item describes the nature of

<b>Conflict mineral initiatives interaction in governance process</b>	<b>Development</b>	<b>Implementation</b>	<b>Monitoring and evaluation</b>
With which other initiative(s) does this particular initiative interact?			
What type of actor(s) is/are involved in the interaction?			
What is the character of the interaction? <ul style="list-style-type: none"> <li>• Competition</li> <li>• Coordination</li> <li>• Cooptation</li> </ul>			
What issue focus (foci) is/are concerned with the interaction?			
What, if at all, kind of governance function(s) is/are involved with the interaction?			

**Table 3** Conflict mineral initiatives interaction framework (Bitzer *et al.*, 2012; Bulkeley *et al.*, 2012; Eberlein *et al.*, forthcoming; Hoffmann, 2011; Vermeulen *et al.*, 2010).

interaction between different initiatives (Eberlein *et al.*, forthcoming). In case of competition, conflict mineral initiatives compete for recognition, legitimacy, relevance, financial resources, adherents, and so forth. Coordination refers to a situation where transnational governance initiatives collaborate together or divide different tasks in the governance process, usually to gain legitimacy and policy relevance and to learn from previous experiences. Cooptation can range from convergence on certain standards to full-fledged metagovernance and even a monopoly of certain transnational governance initiatives. Third, some extra elements are added that are not included in the framework of Eberlein *et al.* (forthcoming), based on theoretical insights covered in chapter 2. From the transnational governance literature, it was for instance learned that the issue focus can be an important incentive for initiatives to interact, as initiatives that work on similar issue issues are more inclined to interact with one another in order to exchange information and resources and therefore, to become more effective (e.g. Bitzer *et al.*, 2012; Hoffmann, 2011). Lastly, Eberlein *et al.*'s (forthcoming) item of interaction drivers are covered separately in chapter 5. Similarly, interaction effects are extensively discussed in chapter 6.

The resulting framework is used to categorize interactions between 20 conflict mineral initiatives over time. The interactions are addressed at the meso level of conflict mineral initiatives, where the initiatives interact among themselves rather than focusing on individual actor interaction (Eberlein *et al.*, forthcoming: 11). The results are used to answer sub question 3. Similar to the institutional characteristics, the development of conflict mineral initiatives interaction are analyzed over a period of five years, focusing on the items that are shown in Table 4 to map their development. This analysis helps to answer sub question 4.

<b>Conflict mineral initiatives institutional characteristics and interaction characteristics development</b>	<b>Conflict minerals governance arena year 1</b>	<b>Conflict minerals governance arena year 2</b>	<b>Conflict minerals governance arena year 2</b>	<b>Etc.</b>
<b>Conflict mineral initiatives institutional characteristics development</b>				
Initiating actor distribution				
Involved actor distribution				
Origin of actor distribution				
Supply chain focus distribution				
Conflict mineral focus distribution				
Operational focus distribution				
Issue focus distribution				
Governance mode distribution				
Governance instruments distribution				
Governance functions distribution				
<b>Conflict mineral initiatives interactions development</b>				
Actor type involvement distribution (incl. development, implementation, and monitoring and evaluation)				
Character of interaction distribution (incl. development, implementation, and monitoring and evaluation)				
Issue focus of interaction distribution (incl. development, implementation, and monitoring and evaluation)				
Governance function subject to interaction distribution (incl. development, implementation, and monitoring and evaluation)				

**Table 4** Conflict mineral initiatives institutional characteristics and interaction characteristics development framework (Bitzer *et al.*, 2012; Bulkeley *et al.*, 2012; Driessen *et al.*, 2012; Eberlein *et al.*, forthcoming; Hoffmann, 2011; Vermeulen *et al.*, 2010).

**3.3. Comparing interaction and institutional characteristics development**

In a third part of the research, the patterns found in the first and the second part of the analysis - the development in institutional characteristics and interaction characteristics, respectively - are compared to assess whether conflict mineral initiatives interactions genuinely correlate with changes in institutional characteristics of conflict mineral initiatives over time. By comparing the patterns, it can be established whether conflict mineral initiatives diffuse, diverge or adapt their institutional characteristics as a consequence of interaction, thereby addressing sub question 5.

Next, these observations can be set against previous theoretical insights in transnational governance interaction to discuss whether these changes in institutional characteristics, as a consequence of interaction, contribute to the overall performance of conflict minerals governance. This “analytical generalization” will also establish external validity with which the findings can be generalized beyond the realm of conflict minerals governance alone (Yin, 2009: 38).

### 3.4. Interaction effects on conflict minerals governance performance

What is still missing after this step, is a more empirical explanation of the impact of conflict mineral initiatives interaction on conflict minerals governance performance, next to the theoretical explanation in the third part of the research. In a fourth part of the research, it is therefore established what a 'good' overall performance exactly entails, answering sub question 6. The performance is assessed in three ways. First, the institutional characteristics development is set against the United Nations (UN) principles of good governance and the International Social and Environmental Accreditation and Labeling (ISEAL) Credibility Principles. This helps to assess whether the institutional design of the conflict mineral initiatives correspond with principles of good governance. The United Nations (UN) principles of good governance are defined as follows (UN, 2013):

- The initiative is *consensus oriented*, implying that divergent opinions are shared and decisions are taken on the basis of a long-term perspective.
- The initiative is *participative* in providing a platform to relevant stakeholders and minorities in the developmental and decision making process.
- The principle of *rule of law* requires that the initiative makes use of legal framework that promotes impartiality and clarity on its rules.
- The initiative is *effective and efficient* when it realizes its targets and making the best use of its resources.
- When the initiatives institutions and processes serve all stakeholders within a reasonable time, the initiative is deemed *responsive*.
- *Equity and inclusiveness* means that the initiative takes all relevant stakeholders into account, especially stakeholders with less power and resources.
- The initiative should be *accountable*, both to the public and its direct stakeholders.
- *Transparency* refers here to a reasonable availability of information on the internet, both on the initiative itself and its progress on realizing its objectives.

Although the International Social and Environmental Accreditation and Labeling (ISEAL) Credibility Principles are slightly different, they can be roughly allocated under all the UN good governance principles. As these principles are tailored more towards sustainability standards, they provide useful indicators for the good governance performance of conflict mineral initiatives. The ISEAL Credibility Principles are defined as follows (ISEAL, 2013):

- *Engagement* is ensured when representation of stakeholders is balanced and stakeholders are meaningfully involved.
- *Impartiality* implies that mechanisms are in place to settle conflicts of interest.
- An initiative manifests *rigour* when it is organized to deliver quality outcomes and can provide accurate assessments of its activities.
- *Efficiency* is improved by sound organizational management and engagement with other standards to improve efficiency.

- An initiative must also be *relevant*, in the sense of addressing significant impacts, reflecting the latest developments in science and adapting itself to diverse local conditions.
- *Sustainability* implies the initiative sets itself clear and measured objectives and integrates learning mechanisms.
- *Accessibility* is increased when barriers and costs to join an initiative are lower and training, support, and resources are provided.
- *Truthfulness* means the claims and communication of the initiative are accurate.
- An initiative is *transparent* when information on the initiative, its activities and its impacts are freely available.

Good governance principle	ISEAL Credibility Principle	Institutional characteristics implications
Consensus oriented + participatory	Engagement	<b>Actor characteristics:</b> <ul style="list-style-type: none"> <li>• Involved actors from all three governance spheres: government, market and society</li> <li>• Governance mode: interactive or self-governance</li> </ul>
Follows rule of law	Impartiality	<b>General characteristics:</b> <ul style="list-style-type: none"> <li>• Objective is stated</li> </ul> <b>Governance characteristics:</b> <ul style="list-style-type: none"> <li>• Governance instruments: mandatory instruments</li> <li>• Governance function: target setting</li> <li>• Governance function: rule setting</li> </ul>
	Rigour	
Effectiveness and efficiency + responsiveness	Efficiency	<b>Content characteristics:</b> <ul style="list-style-type: none"> <li>• Covers all conflict minerals</li> <li>• Covers entire supply chain</li> <li>• Operational focus: international/transnational level</li> <li>• Covers all issue foci</li> </ul> <b>Governance characteristics:</b> <ul style="list-style-type: none"> <li>• Governance instruments: incentive-based instruments</li> <li>• Governance instruments: voluntary instruments</li> <li>• Governance function: capacity building</li> <li>• Governance function: direct action</li> <li>• Governance function: provision of funding</li> </ul>
	Relevance	
	Sustainability	
Equity and inclusiveness	Accessibility	<b>Actor characteristics:</b> <ul style="list-style-type: none"> <li>• Origin of actors: North and South</li> <li>• Involved actors: local governments and/or community-based organizations</li> </ul> <b>Governance characteristics:</b> <ul style="list-style-type: none"> <li>• Governance instruments: negotiated instruments</li> </ul>
Accountability	Truthfulness	<b>Content characteristics:</b> <ul style="list-style-type: none"> <li>• Issue focus: audit</li> </ul> <b>Governance characteristics:</b> <ul style="list-style-type: none"> <li>• Governance function monitoring and certification</li> </ul>
Transparency	Transparency	<b>Content characteristics:</b> <ul style="list-style-type: none"> <li>• Issue focus: traceability/chain-of-custody</li> <li>• Issue focus: risk management</li> </ul> <b>Governance characteristics:</b> <ul style="list-style-type: none"> <li>• Governance function: information sharing</li> </ul>

**Table 5** Conflict mineral initiatives good governance framework (ISEAL, 2013; UN, 2013).

The combination of UN and ISEAL principles provides a frame of reference from which a broad set of implications for institutional characteristics of conflict mineral initiatives can be derived (see Table 5). In the third, most right column it is shown what specific institutional characteristics of the initiatives are linked to certain good governance principles. The more of these implication items were found in the institutional characteristics conflict mineral initiatives, the better the performance of the initiative was believed to be. The implications thus serve as indicators for the good governance performance of conflict mineral initiatives. By identifying the development of the institutional characteristics of conflict mineral initiatives over time, it can be established whether certain interactions correspond to ‘good governance changes’ in their institutional design. Such changes consequently lead to a better overall performance of conflict minerals governance.

A significant weakness of this method is that the placement and formulation of the institutional characteristics implications is arbitrary, as the institutional characteristics do not always fit one on one to certain good governance principles. From a pragmatic point of view, however, it is believed this method assists in arriving at some modest insights on the relation between the initiatives’ institutional structure and their good governance performance, while most institutional characteristics can arguably be linked to the good governance principles.

Recognizing this weakness of the former evaluation method, however, a network analysis of conflict mineral initiatives interaction is performed as a second check. It is intended to provide a more structural explanation for the conflict minerals governance performance in comparison to the normative good governance indicators. Additionally, a mixed method approach will help to increase the construct validity of the research (Yin, 2009). The network analysis aims to capture the network structure of the different interaction characteristics for each of the five years. Based on Sandström & Carlsson (2008) and Sandström & Rova (2010), the items include the size, the number of new initiatives for each year, the density degree (degree of connections between initiatives), the centralization degree (degree of hierarchy in a network), the actor diversity, and the cross-boundary interaction (percentage of interaction crossing different administrative borders) (see Table 6).

The social network analysis approach argues that network structure influences the behavior of actors and the quality of their interactions, which in turn affects the performance of a governance system (Sandström & Rova, 2010). A high network closure, with high levels of density and centralization, plus high network heterogeneity, with high actor diversity and cross-boundary interaction, result in the best performing networks. The network data are imported to and analyzed in the open source software programme Pajek to visualize the networks.

<b>Network structure</b>	<b>Network conflict mineral initiatives year 1</b>	<b>Network conflict mineral initiatives year 2</b>	<b>Network conflict mineral initiatives year 3</b>	<b>Etc.</b>
Size (number of initiatives)				
New (number of initiatives)				
Density (%)				
Degree of centralization (%)				
Diversity of initiatives (number)				
Cross-boundary interaction (%)				

**Table 6** Conflict minerals governance network structure framework (Sandström & Carlsson, 2008; Sandström & Rova, 2010).



A third, and last, evaluation method is performed by collecting conflict-free mineral production data. By comparing these data with the total production of conflict free minerals, the impact of the conflict mineral initiatives on the extraction industry can be established. Data from the US Geological Survey and NGO Enough provide information from two different sources on both the world production of conflict minerals and their production in the Great Lakes Region. Production figures of conflict-free minerals are provided by conflict mineral initiatives themselves. This evaluation method and the previous evaluation methods help to answer sub question 6.

Combined with the theoretical explanation for the influence of interaction on institutional characteristics in the third part of the research, the thesis contains a total of four different systematic accounts for an answer to the main research question. By verifying the influence of interaction through four different approaches, the certainty about which particular interaction influences performance of conflict minerals governance is greatly increased.

### **3.5. Data collection**

Data for the institutional characteristics and interaction characteristics were for the most part collected through desk research. Most of the sources were therefore secondary sources, such as websites, reports, documents, presentations, newsletters, press releases, and correspondence. In addition, several research and consultancy reports on conflict mineral initiatives and the conflict minerals issue in the Great Lakes Region in general provided more contextual background information, next to the systematic information in the database. Preliminary research helped to select which conflict mineral initiatives were important for the research and to identify relevant literature, consultancy documents, and conflict mineral initiative documents.

The indications for interaction between conflict mineral initiatives found during the desk research were checked with representatives from organizations that are in charge of the conflict mineral initiatives. However, due to a low response to interview requests, only 7 of the 20 conflict mineral initiatives could be interviewed. The interviews were conducted by telephone and in a semi-structured fashion. In addition to the links between initiatives, the interviews also provided data on the motives and importance of interaction. This information helped to gain a deeper understanding about the implications of interaction for the institutional characteristics of the conflict mineral initiatives. As much as possible, data triangulation of sources was exercised in the data collection, helping to increase research quality. In case of interaction, for instance, it was checked whether both initiatives mention their mutual interaction.

## 4. Development of conflict mineral initiatives

The development of conflict mineral initiatives is discussed in several parts. The first part provides contextual background information on the conflict situation in the Great Lakes Region, but focuses on the conflict hotbed in East Congo in particular. In a second part, the rise of conflict mineral initiatives is described by highlighting the role of international organizations, states, and NGOs in the emergence of conflict minerals governance. In a separate part, it is also shown how partnerships, business associations, and companies contributed to the development of conflict minerals governance.

After the context-oriented parts, the development of conflict mineral initiatives is discussed in a more systematic manner in the remaining parts. First, the development of actor characteristics is outlined by discussing which actor types have initiated and have been involved in initiatives. In addition, it is discussed what the origin of the involved actors is. Second, the content characteristics describe how the conflict mineral, supply chain, operational, and issue focus of the initiatives have developed. Third, the development of governance characteristics are presented by focusing on governance modes, instruments, and functions. The section ends with a brief discussion on the development of conflict mineral initiatives.

### 4.1. Conflict in the Great Lakes Region and East Congo

Although conflict mineral mining is found throughout the Great Lakes Region area, most conflict mineral mining takes place in East Congo. Not accidentally, East Congo is also one of the most war-torn areas in the Great Lakes Region. Unrest in the East Congo starts in 1996, when the bordering Rwandan war and genocide also ignites conflict in the eastern part of Congo. Rebel forces of Rwandan Hutus use East Congo as a base to incite Tutsis in Rwanda. Soon, however, the Hutu rebel forces merge with the Congolese armed force to attack Congolese Tutsis in East Congo. As a reaction, Congolese Tutsis went to arms to defend themselves. The Congolese government supported the Hutus by deliberately escalating the conflict, leading to a Tutsi rebellion against president Mobutu in November 1996 and heralding the First Congo War.

The Tutsi rebel groups were able to attract other opposition groups that were supported by other countries such as Rwanda and Uganda. Led by Laurent-Desire Kabila, the *Alliance des Forces Démocratiques pour la Libération du Congo-Zaïre* (AFDL), the goal of the rebel groups was now to oust Mobutu. By gaining more support from other Congolese politicians, the *Alliance des Forces Démocratiques pour la Libération du Congo-Zaïre* (AFDL) was able to create a considerable military force, forcing Mobutu to enter into peace talks with Kabila. Mobutu left the country and Kabila became president.

However, little changed under the leadership of Kabila. As a result, a new rebel group emerged, called the Movement for the Liberation of Congo (MLC) and led by Jean-Pierre Bemba. Their attacks began in August 1998 and were supported by troops from Rwanda and Uganda. Soon after, other African states got involved in what came to be known as the Second Congo War. Where Namibia supported the Movement for the Liberation of Congo (MLC), Angola and Zimbabwe supported the government. Eventually a ceasefire contract was signed in July 1999, but the rebel groups continued their attacks. After the assassination of Laurent-Desire Kabila in 2001, his son Joseph was installed in office and managed to broker a peace deal, resulting in a withdrawal of Ugandan and Rwandan troops. However, Uganda still hung on to an area in the North of Congo, while Rwandese troops still controlled part of East Congo. It was during this phase of the Second

Congo war that the phenomenon of conflict mining began to emerge in these areas. Clashes in these areas remained and only in 2003 Joseph Kabila signed a peace treaty in which he would share his power with the rebel groups.

Soon, however, the rebel group Rally for Congolese Democracy (RCD) stepped out of the newly integrated national army in 2004 under the leadership of Laurent Nkunda. During succeeding years, the Rally for Congolese Democracy attracted other rebel groups as well and created more and more havoc in the East Congo region, while conflict mining was reported to fuel the rebels income (Global Witness, 2010). Only in 2009, after several failed attempts at cease fires and peace treaties, the conflict in East Congo effectively ended with the capture of Laurent Nkunda in Rwanda and the signing of a peace treaty by the remaining rebel force.

Even after the capture of Nkunda, the security situation in East Congo remained very fragile. The remaining rebel force that signed the peace agreement of 2009, known as the National Congress for the Defence of the People (NCDP) mutinied against the national army in which they were integrated in April 2012 and labelled themselves as the March 23 Movement (M23) under Bosco Ntaganda. The March 23 Movement managed to take control over the major city of Goma on 20 November 2012, but left after successful negotiations with national and regional government. Most recently, however, the national government army clashed again with March 23 Movement rebel forces, leading thousands of Congolese civilians to flee to Uganda.

#### **4.2. International organizations, states, and NGOs**

International concern about conflict minerals dramatically increases at the dawn of this century. While the Second Congo War rages on, more evidence surfaces that minerals trade is playing a role in financing the conflict, particularly with regards to gold, tin, tantalum, and tungsten. The concern is so great that the United Nations (UN) Security Council passes a resolution in June 2000 that establishes a Panel of Experts with a mandate to investigate the illegal exploitation of natural resources in the Great Lakes Region and to identify any links between the natural resources trade and the conflict in East Congo. The final report was published in 2003, concluding that there is an inextricable link between the exploitation of natural resources and conflict in Congo (UN, 2003). The Panel also produced an accompanying list of 125 companies operating in the Democratic Republic of Congo (DRC) that have refused cooperation in the research. As a result, the UN Security Council passed another resolution that created a Group of Experts to further investigate the matter. In addition, the Security Council imposed an arms embargo on all armed groups in the North Kivu and South Kivu provinces in East Congo. Since its establishment, the Group of Experts has reported back to the Council on an annual basis and issued several guidelines in 2010 for the Security Council's Sanctions Committee to follow-up on the conflict minerals issue. The Security Council used the guidelines for a resolution calling onto governments, markets, and companies to establish due diligence mechanisms for conflict minerals. In addition, it imposed asset freezes and travel bans for individuals included in the conflict (Bleischwitz *et al.*, 2012).

At the same time, NGOs and several research institutions had started to pick up on the conflict minerals issue by starting several campaigns. The concerns of the UN Security Council coincided with a boom in the coltan market at the end of 2000 after a sudden increase in demand for tantalum capacitors. When the coltan rush in East Congo was covered extensively in western media, processing companies were blamed for supporting the rebel organisations. Initially, NGO campaigning focused on the dramatic fall in the population of eastern low land gorilla, which was

International organizations, states, and NGOs timeline	
June 2000	UN Panel of Experts established.
Mid 2001	Start of Dian Fossey Gorilla Fund.
June 2001	No Blood on My Mobile Campaign.
Second half of 2003	UN Panel of Experts publishes final report and publishes a name-and-shame list of 125 companies.
February 2007	NGO Global Witness files complaint at OECD National Contact Point.
June 2007	<i>Bundesanstalt für Geowissenschaften und Rohstoffe</i> (BGR) starts to develop conflict mineral traceability method.
2007	Start of Make IT Fair campaign by research centre SOMO.
Late 2008	NGO Enough begins its Raise Hope for Congo project.
2008	<i>Bundesanstalt für Geowissenschaften und Rohstoffe</i> (BGR) starts pilot project in Rwanda.
February 2009	European Union sets up international task force to address conflict minerals.
December 2009	OECD organizes first multi-stakeholder meeting to address conflict minerals.
December 2009	<i>Centres de négoce</i> project starts.
2009	<i>Bundesanstalt für Geowissenschaften und Rohstoffe</i> (BGR) starts pilot project in East Congo.
2009	STAREC plan announced by Congolese Government.
Mid 2009	US starts drafting first conflict minerals act.
July 2010	US president Obama signs Dodd-Frank Act.
September 2010	President Kabila announces mining ban.
December 2010	OECD presents Due Diligence Guidelines for conflict minerals.
December 2010	Regional Initiative on Natural Resource signed by International Conference on the Great Lakes Region (ICGLR).
Late 2010	European Parliament requests European conflict minerals provisions.
2010	Congolese government starts update <i>Code Minier</i> and <i>Reglement Minier</i> .
2010	Conflict minerals bill proposed in Canada.
March 2011	Congolese mining ban lifted.
March 2011	European Commission announces proposal to increase transparency in extractive industries.
October 2011	State of California passes conflict minerals law.
April 2013	New conflict minerals bill introduced in Canada.
August 2013	US Securities and Exchange Commission (SEC) presents guidance for Section 1502 implementation.
2013	Dubai Multi Commodities Centre (DMCC) presents its gold guidance.

**Table 7** Timeline of activities of international organizations, states, and NGOs regarding conflict minerals.

linked to artisanal and small-scale mining activities in the Congo's Kahuzi-Biéga National Park (ITU, 2012). Several companies operating in Congo started receiving letters calling for a stop on the use of tantalum from fragile ecosystems. The actor Leonardo DiCaprio was raising support for 'gorilla-friendly' mobile phones as part of a campaign of the Dian Fossey Gorilla Fund (*Ibid.*). However, other NGOs placed more emphasis on human rights conditions in Congo. The 'No Blood on My Mobile' campaign, for instance, was set up in 2001 and supported by a broad range of international NGOs to show how the private sector was impacting the war in Congo (Cuvelier & Raeymaekers, 2002). After these first NGO campaigns, a gap in NGO attention occurs between 2003 and 2007 that is not accounted for in any report or literature on the conflict minerals issue. Possibly, NGOs, especially with a human rights focus, might have turned their attention to the Iraqi invasion and all its consequences, which began in 2003. Similarly, a new conflict in the province of Darfur in Sudan began in the spring of 2003, creating a dramatic human crisis. At the same time, the Second Congolese War officially ended in 2003. Moreover, the launch of the Extractive Industries Transparency Initiative (EITI) in 2002, aiming to increase transparency in the extractives industry, might have convinced NGOs that mining companies were ready to deal with the conflict minerals issue.

Whatever the explanation for the sudden absence of attention, the United Kingdom-based NGO Global Witness is the first to renew attention to the conflict minerals issue. In early 2007, it filed a complaint under the Organisation for Economic Cooperation and Development (OECD) Guidelines for Multinational Enterprises against the British mineral trading company Afrimex for funding conflict and strengthening the rebels capacity via payments to the RCD rebel group. The OECD National Contact Point of the United Kingdom upheld the charge and Afrimex stopped trading minerals from Congo (ITU, 2012). In the same year, the Dutch organization SOMO (Centre for Research on Multinational Corporations) launched the Make IT Fair project in cooperation with several partners from all over Europe, aiming to raise awareness among younger consumers about sourcing practices of the electronics industry. In several reports, the organization addressed misbehaviour of companies in the copper and cobalt supply chains in Zambia, platinum mining in South Africa, and tin mining in Indonesia (Make IT Fair, 2008). With regards to Congo, it published several reports on corporate misconduct in the tin, tantalum, copper, and cobalt supply chains (Make IT Fair, 2007; 2008). SOMO is still an active NGO in the conflict minerals debate, seeking to involve Congolese stakeholders as much as possible in drafting legislation and fostering the development of initiatives in their country (ITU, 2012). During late 2008, NGO Enough starts its Raise Hope for Congo project, focusing on conflict minerals in East Congo. Although initially focusing on the sexual violence component of Congo's natural resources war, it later also started to raise attention to security and livelihood issues in East Congo. After the US start drafting a first conflict minerals act in mid-2009, partly based on a 2007 report by NGO Pact, more NGOs began to publish reports on conflict minerals. This resulted in even more attention for the conflict minerals issue and increased pressure on conflict mineral end-users (Pact, 2007).<sup>6</sup>

It could be argued that the introduction of the US Congo Conflict Minerals Act in 2009 was a direct result of these NGO campaigns. Not surprisingly, the Act was very much welcomed by these same NGOs. At the same time, the Conflict Minerals Act also proved to be a very important stepping stone for the emergence of conflict minerals governance. Originally sponsored by Senators Brownback, Durbin and Feingold, the bill would demand annual disclosure of activities that involve

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<sup>6</sup> e.g. BSR, 2010; Cuvelier *et al.*, 2010; Garrett *et al.*, 2010; International Alert, 2010; ITU 2012; Lezhnev & Sullivan, 2011; Pact, 2010; Resolve, 2010; Spittaels, 2010; Verbruggen *et al.*, 2011.

the use of coltan, cassiterite, and wolframite from Congo to the Securities and Exchange Commission (SEC). The Securities and Exchange Commission (SEC) is a federal agency that supervises several stock and options exchanges and electronic securities markets in the United States. Although the proposal already died in the committee phase, the bill would be incorporated in a similar language in Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, which was adopted in July 2010. Section 1502 required the Securities and Exchange Commission (SEC) to draft rules that would force US companies to make the use of conflict minerals from Congo and adjoining countries in the Great Lakes Region public. The unilateral move by the United States invoked great concern among US and global companies that operate in or trade with the Great Lakes Region. As a result, many companies decided to source their minerals from other countries. However, a more positive side effect was the establishment of many conflict mineral initiatives in a response to the Dodd-Frank Act. In addition, several existing initiatives adapted their standards and regulations to the Act. Moreover, as many electronic companies started to source the minerals from other countries, the livelihoods of the several million artisanal and small-scale miners in the Great Lakes Region were threatened, possibly resulting in new conflict in the East Congo region (Hogg, 2012). Concerned about this development, a few initiatives started activities that aimed to deliberately source from Congo itself by setting up so-called closed-pipe supply chains, in order to ensure artisanal and small-scale miners' livelihoods in the region. The Dodd-Frank Act therefore marked a breakthrough for conflict minerals governance and greatly increased its momentum.

However, not only companies reacted to the Dodd-Frank Act. In Canada, a bill was proposed in 2010 which required Canadian companies to perform due diligence before purchasing minerals from Congo in order to make sure it was not benefitting any armed group. The bill never made it into law, but a Canadian parliamentarian has recently introduced a new bill that aims to transform the OECD guidelines on conflict minerals into Canadian law (Whittington, 2013). Similarly, the adoption of the Dodd-Frank Act also set the stage for several decentralized legislative conflict mineral initiatives, both at the state level in California as well as Maryland, and at the city level in Pittsburgh and St. Petersburg (Florida) (KPMG, 2012). All of these initiatives are based on the Dodd-Frank Act and demand the use of conflict-free materials in products sold within the respective boundaries of these political entities.

Notwithstanding the importance of these national, regional, and local legislative initiatives, all eyes turned towards the EU after the adoption of the Dodd-Frank Act. Pressure on the European Union to address the conflict minerals issue grew. In October 2010 the European Parliament requested the European Commission to investigate the possibility of a European Dodd-Frank Act. However, the Commission preferred to address the issue of extractive industry transparency in a much broader financial regulatory reform, similar to the US government, by promoting more disclosure of financial information and transparency for the extractive industry (Valvodova, 2011; Verbruggen *et al.*, 2011). In March 2011, the European Commission announced to work on a proposal that included a mandatory country-by-country disclosure of money flows between the extractive industries and governments.<sup>7</sup> However, the proposal merely focused on financial transparency and did not demand transparency on the sourcing of conflict minerals (ITU, 2012). A legislative proposal that specifically considered reporting on the sourcing of conflict minerals was at this point therefore not considered. Informally, the European Union set up an international ad-hoc

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<sup>7</sup> The legislative process that accompanied this proposal resulted in a set of rules demanding disclosure of extractive company payments to governments that were adopted in April 2013. The rules are to be incorporated in the EUs Transparency and Accounting Directives.

task force to address the illegal exploitation of natural resources in February 2009. The task force included representatives and experts from the United Nations Organization Mission in the Democratic Republic of Congo (MONUC), the OECD, the United States, Canada, Norway, and several European Union Member States. Eventually, the task force would also include the International Conference on the Great Lakes Region (ICGLR)<sup>8</sup>, Japan, India, South Africa, and China (Wikileaks Cable, 2010). The task force is mostly concerned with the promotion of political dialogue and coordination on the illegal exploitation and trade of natural resources. It works closely together with local governments on six areas: the mapping of areas that are controlled by armed groups and the army; improvement of due diligence in Congo; the promotion of regional certification mechanisms; the promotion of legal trade of natural resources; capacity building of Congolese authorities in surveillance and control; and fostering regional cooperation between the Great Lakes countries (Van de Geer, 2009).

Obviously, the Congolese government was very much aware of the legislative developments and NGO campaigns on conflict minerals at the international level. If not for the legislative developments and campaigns themselves, the Congolese government surely noted the withdrawal of companies out of the Congolese mining sector out of fear of negative repercussions for continued sourcing from the region. In response, the Congolese Ministry of Mines set up a number of work groups in an attempt to coordinate several traceability and certification efforts. Of the three different working groups, the so-called *Groupe Thématique des Mines* coordinates activities taking place between the Congolese government and the various international partners, including conflict mineral initiatives operating on the ground within Congolese borders (Verbruggen *et al.*, 2011). In addition, the Congolese government has revised the Congolese *Code Minier* (2002) and its sub-part, the *Reglement Minier* (2003) in order to support efforts that aim to foster traceability, certification, and due diligence in the conflict mineral supply chains (ITU, 2012). One revision has resulted in a Traceability Procedures Manual for Mining Products. A second revision led to the *Certification Nationale*. The manual is meant to be used by actors in the upstream supply chain: the artisanal and small-scale miners; the *negociants*, who operate in trading houses (*centres de négoce*) where the minerals are sold to foreign buyers; any mineral processor; any mining permit holder; customs; and relevant government bodies in Congo. If the actors comply with the rules set out in the manual, they prove to make sufficient efforts to apply for national certification. However, it does not mean the operators automatically become certified (*Ibid.*). The *Certification Nationale*, on the other hand, is designed to do just that. Its rules aim to establish certified, conflict-free mineral supply chains and has started operating in the North and South Kivu provinces, the epicentre of the conflict minerals issue. It contains several environmental provisions that require mine operators to have a cohesive environmental management plan for waste. The law further outlines mine audits for every three years, including additional inspections by the Congolese Ministry of Mines. The *Certification Nationale* programme is also part of a regional initiative, namely the International Conference on the Great Lakes Regions Regional Certification Mechanism (ITU, 2012).

A third relevant effort by the Congolese government is the STAREC programme, which stands for *Programme de Stabilisation et de Reconstruction des Zones sortant des conflits armés* [Programme for the Stabilization and Reconstruction of Zones Coming Out of Armed Conflict]. The STAREC programme distinguishes itself from the other initiatives with an additional focus on security.

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<sup>8</sup> The International Conference on the Great Lakes Region (ICGLR), is an intergovernmental organization consisting of states situated in the Great Lakes Region, including the Democratic Republic of Congo (DRC), Rwanda, Burundi, Uganda, Tanzania, Sudan, Republic of Congo, Central African Republic, Zambia, Kenya and Angola.

For this reason it is jointly implemented by the Congolese government and MONUSCO, the *Mission de l'Organisation des Nations Unies pour la stabilisation en République démocratique du Congo* [United Nations Organization Stabilization Mission in the Democratic Republic of Congo]. A very important part of the programme focuses on re-establishing authority in the timber and minerals industry. One key component of this part of the programme focuses on the establishment of mineral trading houses where activities are fully regulated by the Congolese government, which is known as the *Centre de Négoce* project. In addition to the establishment of the trading houses, mine sites are mapped and identified that could qualify for participation in the legal supply chain. The mines that take part in this project are to be assessed every three months (Verbruggen *et al.*, 2011).

Regarding environmental issues, the Congolese government aims to improve its current environmental framework, but also lacks time and resources to do so. Its *Code Environmental* does demand stricter provisions for mining corporations in carrying out environmental and social impact assessments (ITU, 2012). A United Nations Environmental Programme report (UNEP, 2011), however concludes that the current environmental legislation does not ensure a mandate, infrastructure, coordination, and resources to enforce the environmental provisions.

Despite these initial endeavours, a mining ban was announced by Congolese president Kabila on 11 September 2010 that suspended all exploitation and export of minerals from the North Kivu, South Kivu, and Maniema provinces until further notice. The ban was intended to put a stop on the illegal exploitation of natural resources in East Congo, but in the following months the effectiveness and feasibility of the ban was highly questioned by several NGOs, experts, and reporters in the region (Verbruggen *et al.*, 2011). There were also indications that Congolese military members exploited the situation by setting up and controlling illegal mining operations. But more importantly, the ban had a severe negative impact on the livelihoods of people living in East Congo, as many artisanal miners and buyers of minerals were having problems to find an alternative income. Although the ban was lifted again on 10 March 2011, many artisanal miners expressed their frustration over the problem that the ban had put several conflict mineral initiatives that were already underway, on hold (*Ibid.*).

However, legislative developments did not take place at the national Congolese level alone. It was highlighted before that there is some attention for conflict minerals at the Great Lakes Region level, which stands at the basis of legislative measures by Great Lakes Region states to help tackle the conflict minerals issue. The International Conference on the Great Lakes Regions (ICGLR) Regional Certification Mechanism developed out of the Protocol on the Fight against Illegal Exploitation of Natural Resources in which each member state agreed to start taking measures that would suit this end, and that was signed by all signatory states in December 2006. In 2010, the Lusaka Declaration established the development of six tools to deal with the issue of illegal exploitation of natural resources. The Regional Certification Mechanism for conflict minerals was one of these six tools and is supposed to be embedded in national law across all member states (ITU, 2012).

Throughout both the national and regional legislative conflict mineral initiatives, the involvement of the *Bundesanstalt für Geowissenschaften und Rohstoffe* (BGR) [German Federal Institute for Geosciences and Natural Resources] is striking. Not only does the Institute assist the Congolese government and the International Conference on the Great Lakes Region (ICGLR) in the execution of their legislative measures, it is also a member of the European Union International Task Force. Besides its involvement in several conflict mineral initiatives, the Institute sets up its own project to address conflict minerals. As a subsidiary of the German federal government, the Institute was involved in a team that studied how to secure a steady supply chain, in preparation for the G8 Summit in Heiligendamm in June 2007. For the Summit, the Institute developed a method to identify



and certify artisanally mined minerals, which came to be known as Certified Trading Chains (CTC). In 2008, the Institute started a pilot project in Rwanda together with Rwandan authorities and developed several certification standards on traceability, transparency, and a set of social and environmental standards. In 2009, the Institute extended their activities to East Congo.

One initiative, however, managed to bring together many different conflict mineral initiatives and would have a large impact on the development of conflict minerals governance as a whole. In 2009, the OECD hosted a multi-stakeholder working group with the goal to develop guidelines for companies operating in or sourcing minerals from conflict-affected areas. The result surfaced in December 2010, when a final draft of a guidance document was produced. This final draft had received extensive input from governmental, market, and civil society actors. Although the OECD guidance does not impose any legal obligations regarding the sourcing of conflict minerals, violations of the guidance can be brought before the OECD National Contact Points in the respective home countries resulting in a statement without any judicial value. Due to its inclusive consultation process, the OECD managed to gain wide-spread support among all relevant stakeholders and other conflict mineral initiatives. The OECD guidance is, for instance, supported by the *Bundesanstalt für Geowissenschaften und Rohstoffe* (BGR) and the International Conference on the Great Lakes Region (ICGLR), but also by many industry-led conflict mineral initiatives. For most of the current conflict mineral initiatives, the OECD guidance is the main point of reference for drafting their own standards. The guidance prescribes companies to not profit from or contribute to torture and degrading treatment, compulsory labour, the worst forms of child labour, and other gross human rights violations or war crimes. In addition to that, the companies are not to tolerate any support to nonstate armed group in the entire supply chain or to public and private security forces who control mines illegally or who raise illegal taxes at any stage in the supply chain. The rest of the guidance document contains risk mitigation strategies in the supply chain of all conflict minerals and due diligence measures for both upstream and downstream actors, all of which aims to increase transparency in the supply chain.

In the Middle East, the Dubai-based Dubai Multi Commodities Centre (DMCC) initiative was relatively recently published due diligence guidelines for gold. The Dubai Multi Commodities Centre (DMCC) regulates the gold refinement and gold trade of Dubai and is regulated itself by Dubai authorities. Before the Dubai Multi Commodities Centre (DMCC) produced its guidance, it was part of the OECD drafting committee to work on the gold supplement in the OECD guidance since March 2011. The participation resulted in an own version of the OECD guidelines, which was labeled as the Dubai Multi Commodities Centres Responsible Sourcing Guidance and was released in April 2012. The guidance became, however, mandatory for members in June 2012, transforming the guidance into *de facto* mandatory rule-setting for member companies in the gold and precious metals industry.

#### **4.3. Partnerships, business associations, and companies**

Parallel to the development of conflict minerals governance by governmental and international organization actors, a broad range of conflict mineral initiatives emerged that can be categorized by extensive private industry involvement. All of these conflict mineral initiatives with extensive private actor involvement are of a voluntary character. As conflict minerals governance started to gain momentum, it was mostly business associations themselves who launched initiatives, but following

<b>Partnerships, business associations, and companies</b>	
Mid 2008	International Tin Research Institute (ITRI) formulates policy on artisanal and small-scale mining.
Second half of 2009	Launch of Conflict-Free Smelter (CFS) protocol, including pilot project.
2009	Introduction of ITRI Tin Supply Chain initiative (iTSCi).
First half of 2010	World gold council begins to develop its gold standard.
Mid 2010	ITRI Tin Supply Chain initiative (iTSCi) pilot starts in South Kivu.
December 2010	Completion of first assessment tantalum smelter under Conflict-Free Smelter (CFS) programme.
2010	Kemet starts Partnership for Social and Economic Sustainability programme.
July 2011	Launch of Solutions for Hope (SfH) project.
November 2011	Launch of Public-Private Alliance for Responsible Minerals Trade (PPA).
December 2011	Idea for Conflict-Free Tin Initiative is born (CFTI).
2011	London Bullion Market Association (LBMA) develops its Responsible Gold Guidance.
January 2012	Conflict-Free Tin Initiative (CFTI) sets up pilot project in South Kivu.
March 2012	Responsible Jewellery Council (RJC) introduces Chain-of-Custody (CoC) standard.
April 2012	Start of Conflict Free Smelter Early Adopters Fund (CFS EAF).
Mid 2012	Automotive Industry Action Group (AIAG) launches conflict mineral reporting tool.
Mid 2012	Cross-recognition of gold standards between Responsible Jewellery Council (RJC), London Bullion Market Association (LBMA), and Conflict-Free Smelter (CFS) protocol.
2012	Public-Private Alliance for Responsible Minerals Trade (PPA) sponsors the Partnership Africa Canada (PAC) conflict-free gold project.

**Table 8** Timeline of activities of partnerships, business associations, and companies regarding conflict minerals.

years also witnessed the emergence of extensive collaboration between public and private actors in the field of conflict minerals governance. The International Tin Research Institute (ITRI), a tin business association, started the first significant industry-led initiative in a response to pressure from international organizations and NGOs. In 2008, the International Tin Research Institute (ITRI) formulated a policy on the artisanal and small-scale mining sectors, followed in 2009 by the introduction of a due diligence system: the ITRI Tin Supply-Chain initiative (iTSCi). The due diligence system for conflict minerals is operationalized through three different strategies. First, the ITRI Tin Supply Chain initiative (iTSCi) demands chain-of-custody tagging, which requires tagging of the minerals for every stage in the supply chain and monitoring of the origin of minerals. Second, the ITRI Tin Supply Chain initiative (iTSCi) registration involves independent third-party risk assessment of mine sites, transportation routes, companies, and the macro-level situation in order to identify and act upon conflict-related risks. Lastly, an independent third-party audit of all companies and system data is performed. With this three-pronged due diligence system, the International Tin Research Institute (ITRI) started to operate several pilot projects in the North and South Kivu provinces of

Congo in 2010. Although president Kabila's mining ban put a temporary hold on the pilot projects, more programmes were set up later in 2011 in Rwanda and in the Katanga province in the South of Congo. There are also plans to extend the initiative to the entire Great Lakes Region, if funding is assured.

Around the same time, the Conflict-Free Smelter (CFS) protocol, which was developed by the Electronic Industry Citizenship Coalition (EICC) and the Global e-Sustainability Initiative (GeSI) business associations, saw its launch in 2009. The Conflict-Free Smelter protocol is the only conflict mineral initiative focusing on the smelter stage in the conflict mineral supply chain. Although this might seem a modest focus considering the size of conflict mineral supply chains, the smelter stage focus is crucial, since it forms a choke point in the supply chains of all conflict minerals, except for gold. Twelve large tin smelters account for almost a hundred percent of global production, while eighty percent of tantalum is smelted by seven companies (Verbruggen *et al.*, 2011). With a relatively small amount of companies controlling conflict mineral smelting, due diligence measures at this stage in the conflict mineral supply chain have a large impact. During the smelter stage, the extracted minerals are smelted to retrieve the respective metals for further processing. Smelting companies that are member of the Conflict-Free Smelter protocol are supposed to demonstrate that all the minerals they process originate from conflict-free sources. A pilot project, involving a purchasing process initiated in Congo, started at the end of 2009 and was led by an NGO that helped the initiative to trace the minerals. In December 2010, the Conflict-Free Smelter programme officially started when a first assessment of a tantalum smelter was completed. In the following years, assessments of tin, tungsten, and gold smelters would follow.

Starting from July 2010, the adoption of Section 1502 of the Dodd-Frank Act marked the start of an explosion of conflict mineral initiatives that were either industry-led or marked by public-private partnerships. Most of the industry-led initiatives launched around that time were motivated by the pressure that Section 1502 and the OECD guidance put on companies. In 2010, the World Gold Council started to develop its conflict-free gold standard. Similar to the OECD guidance and in conformance with Section 1502, the standard mainly outlines a risk management strategy assisting gold operators in preventing to contribute to armed conflict, armed groups and human rights abuses. Kemet, a capacitor producer for electronic products and mostly sourcing tantalum, also undertook a rather early effort at sourcing conflict-free tantalum, starting in 2010. It developed the Partnership for Social and Economic Sustainability programme, focusing on the needs of upstream actors in the tantalum supply chain, such as the construction of a hospital.

In 2011, the London Bullion Market Association (LBMA), an international trade association operating as a wholesale market for gold and silver, developed its Responsible Gold Guidance. The guidance specifically focuses on gold refiners and thereby follows the OECD guidance. Instead of using it as a voluntary system, the London Bullion Market Association has made the guidance mandatory for all refiners who wish to sell into their bullion market. In the same year, the automotive industry set up a working group through its business association, the Automotive Industry Action Group (AIAG). The working group mostly followed legislative and industry developments with regards to conflict minerals and asked its members to assess their supply chains for conflict minerals. In 2012, however, a special working group designed a reporting tool for which it collaborated with the Electronic Industry Citizenship Coalition and the Global e-Sustainability Initiative. The tool facilitates data related to due diligence and smelter information between companies in the minerals supply chain.

During the following year, another initiative was established within the gold sector. The

Responsible Jewellery Council (RJC) launched a Chain-of-Custody (CoC) Standard in March 2012 which applies to gold and platinum group metals. Certified companies need to source metals conflict-free, as a minimum, and need produce responsibly in terms of human rights, labour standards, environmental impact, and business ethics. The Chain-of-Custody certification also helps to comply with the OECD guidance and Section 1502 of the Dodd-Frank Act. In addition, the Standard recognizes audits carried out under the London Bullion Market Association (LBMA) Responsible Gold Guidance and the Conflict-Free Smelter (CFS) protocol for gold refiners. The Responsible Jewellery Council also recognizes the World Gold Council (WGC) Conflict-Free Standard as objective evidence for appropriate due diligence by gold miners. Around the same time, the Conflict-Free Smelter programme was extended with a Conflict-Free Smelter Early Adopters Fund (CFS EAF), which was set up to encourage more smelters to become early adopters of the Conflict-Free Smelter programme. The Fund offsets transition and start-up costs for companies in case they successfully comply with the Conflict-Free Smelter (CFS) protocol and is fully sponsored by private electronic companies.<sup>9</sup>

Many public-private partnerships were also launched as a reaction to the adoption of Section 1502, but for different reasons. Many companies simply stopped sourcing from Congo, leaving thousands of households without any income. The public-private conflict mineral initiatives deliberately wanted to counter this development and set up conflict-free supply chains in Congo that also comply with Section 1502. The year 2011 saw, for instance, the launch of the Solutions for Hope (SfH) project and the Public-Private Alliance for Responsible Minerals Trade (PPA) initiative. Initiated by communication electronics company Motorola and the AVX Corporation, a large tantalum capacitor company, the Solutions for Hope (SfH) project sources conflict-free tantalum from Congo with the specific aim to promote economic stability of the area. In order to source conflict-free minerals, the Solutions for Hope project applies a closed-pipe supply line strategy, implying that the initiative controls the whole supply chain, from mine to end-product, by selecting their own suppliers, smelters, component manufacturers, and end-users. Such a strategy does not only ensure that the conflict minerals processed in each stage of the supply chain are genuinely conflict-free. It also creates a continuous demand for minerals from Congo. In turn, the Public-Private Alliance for Responsible Minerals Trade (PPA) was jointly launched at the end of 2011 by the US State Department, the United States Agency for International Development (USAID), companies, and civil society with the goal to support pilot projects of conflict mineral initiatives and to provide a learning platform for government, market, and civil society actors. Up to now, the Public-Private Alliance for Responsible Minerals Trade (PPA) has provided funding for the Partnership Africa Canada (PAC) conflict-free gold project, which aims to develop a traceable conflict-free supply chain for artisanal gold from the Orientale province in East Congo.

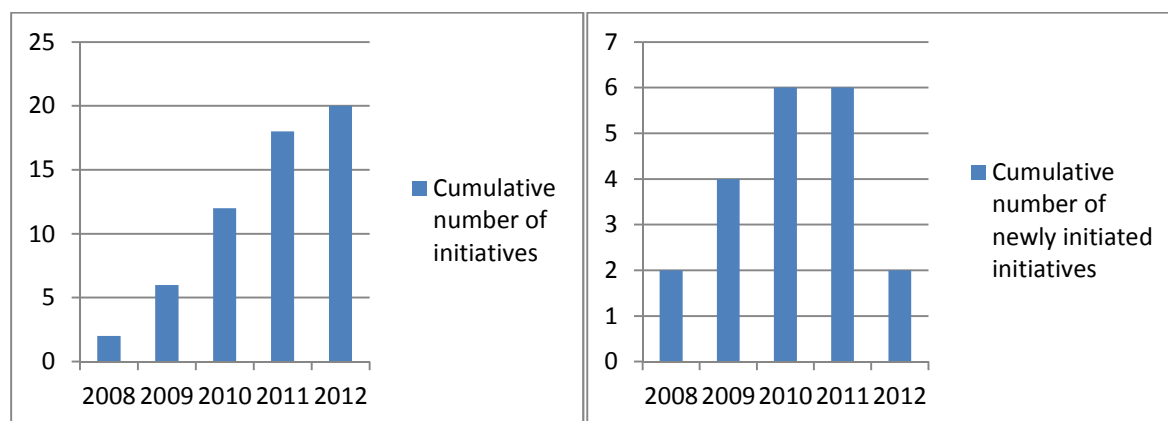
Complementary to the Solutions for Hope (SfH) project, the idea of the Conflict-Free Tin Initiative (CFTI) was also born in 2011. Although initiated by the Dutch Ministry of Foreign Affairs, industry and NGO actors equally participate in the development of a closed-pipe tin supply chain. Currently, the initiative has set up a pilot project in the South Kivu province, for which it cooperates with the International Tin Research Institute (ITRI) and the Conflict-Free Smelter initiatives (CFS). In addition, the Conflict-Free Tin Initiative also complies with the OECD guidelines and the provisions set out by Section 1502 of the Dodd-Frank Act.

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<sup>9</sup> By Intel, Hewlett Packard and General Electric, who also developed the idea for the fund.

#### 4.4. Institutional characteristics development

In the previous paragraphs an attempt was made to outline the different governance mechanisms initiatives use to govern the conflict minerals issue. This section outlines the development of several institutional characteristics of these initiatives. The aim of this exercise is to provide a more systematic account of conflict minerals governance than in the previous paragraph. The development of institutional characteristics of conflict mineral initiatives is discussed in four parts. First, a general overview is provided of emergence of conflict mineral initiatives throughout the period 2008-2012. Then, actor characteristics are discussed, followed by content characteristics. Lastly, the development of governance characteristics is elaborated upon.

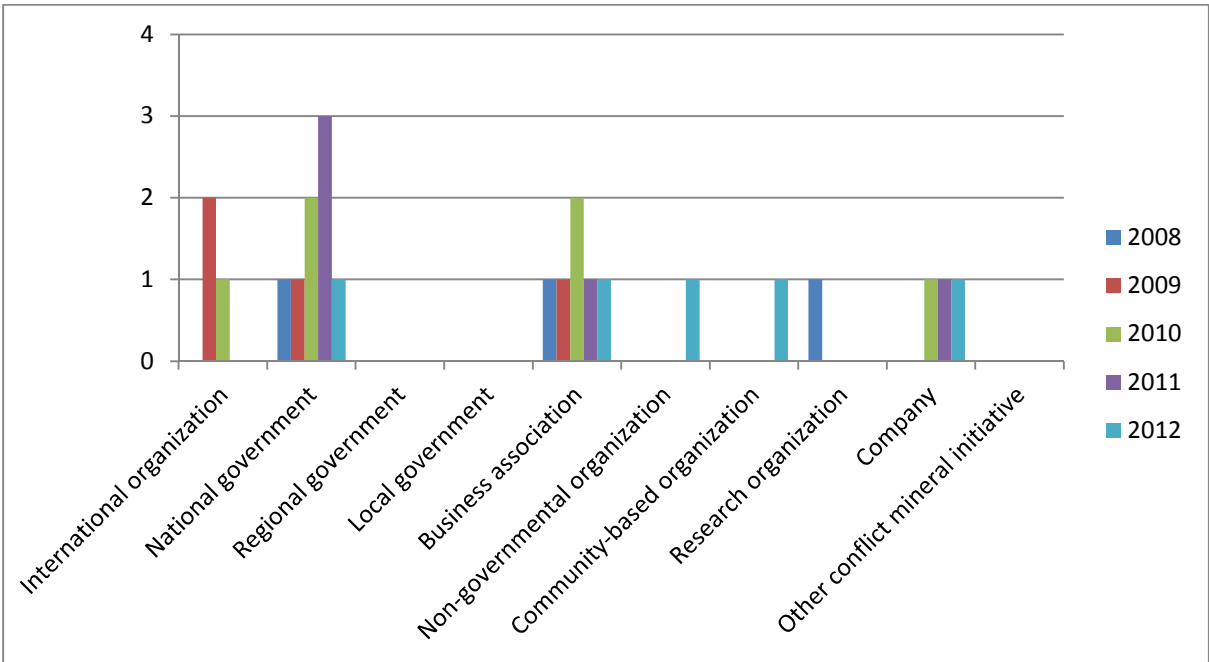


**Figure 2** Cumulative number of identified conflict mineral initiatives for each year (left) and cumulative number of newly initiated conflict mineral initiatives for each year (right).

Looking at the development of conflict mineral initiatives and their characteristics, a first important observation is that a genuine conflict minerals governance arena only exists for about half a decade (see Figure 2). Compared to several other environmental governance arenas, such as climate change, the absolute number of conflict mineral initiatives is relatively low with a current total number of 20 identified initiatives. Despite the relatively small amount of initiatives, there are clearly some trends that can be observed in the general development of the conflict minerals governance arena. First of all, the bulk of initiatives (12) were launched in 2010 and 2011. It has been suggested in the previous section that this boom might be an effect of the development of the Dodd-Frank Act in the United States. Section 1502 of the Act invoked the concern of many end-user companies. As a result, companies did not only start expressing complaints directed at the Securities and Exchange Commission (SEC), but many also began to make preparations for a possible adoption of the Dodd-Frank Act. The preparation for the Dodd-Frank Act in the private sector was mostly led by business associations representing different branches of industry, such as aeronautics, automotives, electronics, jewellery, and so on. Business associations like the Automotive Industry Action Group (AIAG) launched special working groups to keep track of the Dodd-Frank developments and to prepare documents providing companies with information on how to implement due diligence measures and how to perform risk assessments.

At the same time, the development of the OECD Due Diligence Guidelines, starting in December 2009, also proved to have a lasting impact on conflict minerals governance development.

The importance of the Guidelines is exemplified by the recognition of the OECD guidance by the US Securities and Exchange Commission (SEC), announced in August 2012 on the day the Dodd-Frank Act was adopted. In a similar fashion, the International Conference on the Great Lakes Region (ICLGR) stated in their Lusaka Declaration of December 2010 that the OECD Guidelines would be integrated into the six tools of the Regional Initiative. Both of these recognitions have played a tremendous role in boosting the status of the Guidelines, which lack any legal status, vis-à-vis the private sector. In line with these notions, it is remarkable that after the initial boom in initiatives, especially in 2010 and 2011, the number of newly initiated initiatives is significantly lower in 2012. A possible indication that industries were already well-organized and prepared to take action when the Dodd-Frank Act was adopted in August 2012.

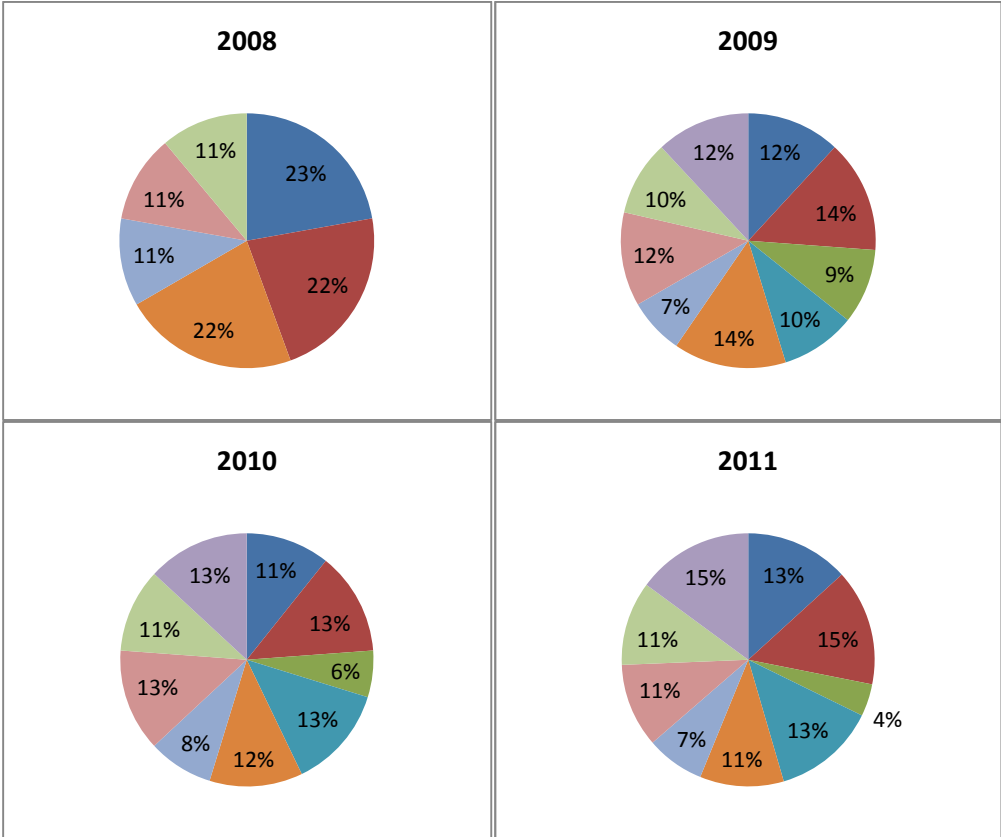


**Figure 3** Cumulative number of initiating actor types for newly initiated conflict mineral initiatives for each year.

The impact of Section 1502 and the OECD guidelines on the private sector are also visible in the development of initiating actors of initiatives (see Figure 3). The years 2010 and 2011 show increased activity of both business associations and companies in setting up their own conflict mineral initiatives. Early business association initiators mostly responded to NGO pressures, such as the International Tin Research Institute (ITRI), Electronic Industry Citizenship Coalition (EICC), and the Global e-Sustainability Initiative (GeSI). Another striking observation is the strong involvement of state actors in the development of conflict minerals governance. In the contemporary era, where the state is believed to play a less important role in the transnational governance arena, the conflict minerals issue shows continued governmental intervention here. Unilateral governmental regulation, such as Section 1502, as a condition of market access may not only invoke a whole new range of transnational governance initiatives organized by private and civil society actors. It seems such state action might also support and enhance the effectiveness of existing initiatives (Zeitlin, 2010). The absence of NGOs and community-based organizations as initiators of conflict mineral initiatives is notable as well, since they form one of the strongest proponents of tackling the conflict minerals issue. However, while civil society organization might not initiate conflict mineral initiatives, many do provide support on the ground in the Great Lakes Region itself. They have assisted several initiatives

in establishing contacts and keep monitoring the local conditions.

With regard to actor type involvement, the pie charts in Figure 4 show the involvement of different actor groups in percentages for each year. Each 'slice' represents the involvement of a particular actor group in all conflict mineral initiatives combined, in comparison to other actor groups, for each year.<sup>10</sup> As there were very few initiatives during 2008 and 2009 (2 and 6, respectively), the percentages shift quite significantly in the first years. However, a general observation that arises is the increased equal distribution of actor group involvement from all three societal spheres throughout the period 2009-2012. More equal involvement does not automatically imply equal power distribution and inclusive decision making. However, it does show the majority of conflict mineral initiatives make efforts to enhance stakeholder involvement. Local and regional actors, and community-based organizations to some extent, are not involved as much as other actor groups. In this context, it should be noted that it was hard to find information on the consultation or involvement of actors on the regional and local levels by initiatives. On the other hand, it is evident that regional and local actors (and their community-based organizations) are not often a member of a conflict mineral initiative. In case regional actors are represented, they mostly consist of regional mining cooperatives. Another observation is the significant involvement of other conflict mineral initiatives, which already started in 2009. It is one indication that there is a great deal of interaction between the initiatives and that the involvement of other initiatives is deemed necessary in an initiative. Lastly, it is striking that the percentage of government involvement decreases from 45% in 2008 to 30% in 2012, indicating an increasing involvement of nonstate actor groups in conflict minerals governance.

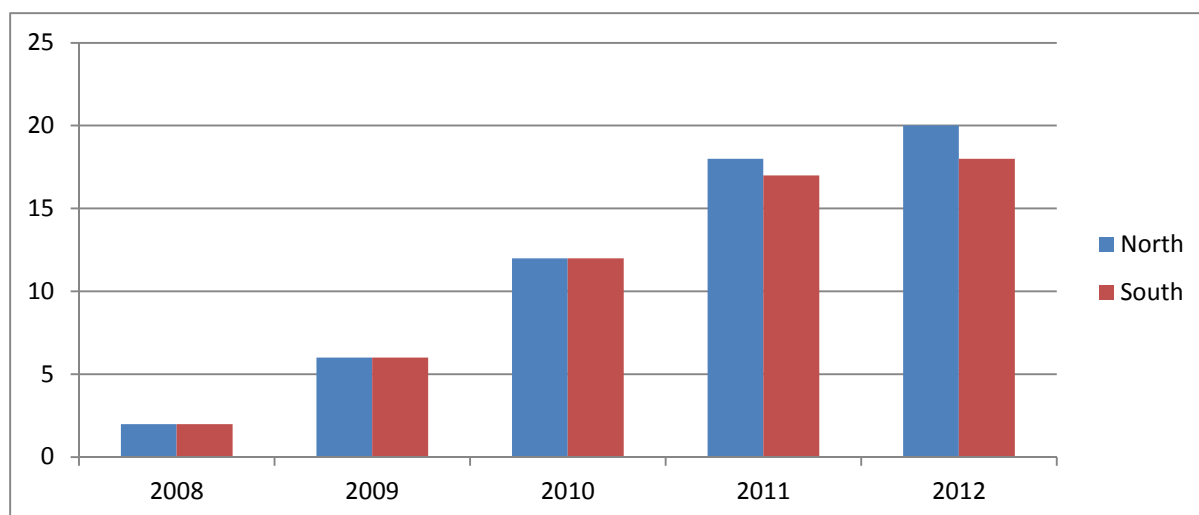


<sup>10</sup> An actor group is 'involved' when at least one actor interacted with the initiative in a particular year. In reality, some actor groups might be involved multiple times than others, which would significantly alter the pie charts.



**Figure 4** Percentages for involved actor groups on total actor involvement for each year.

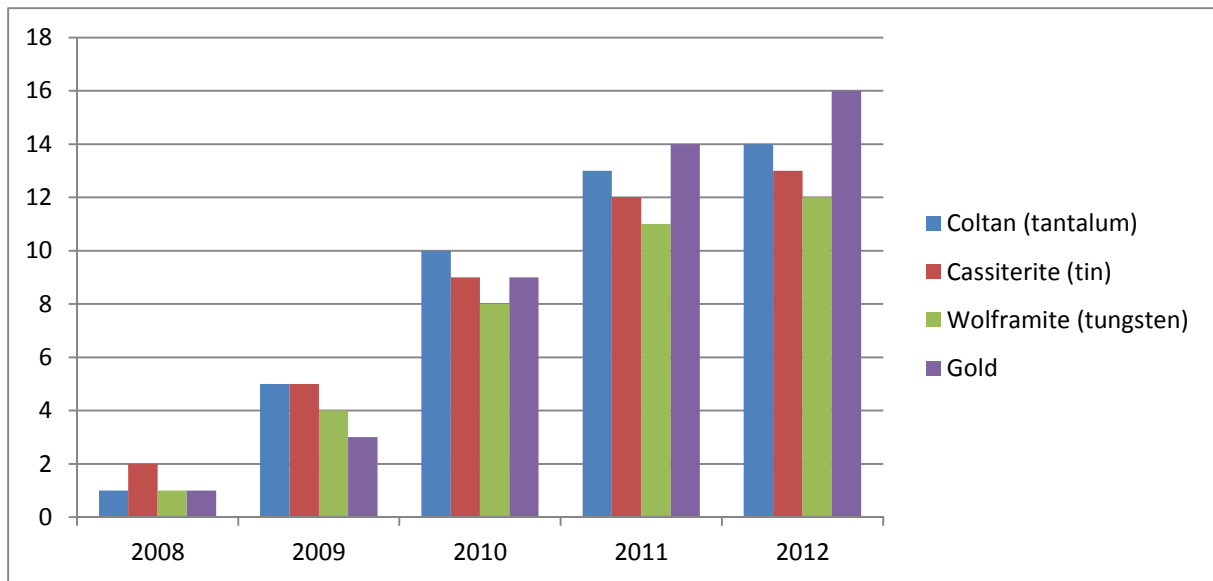
When the actor groups are subsequently divided according to their North and South origin, equal participation again seems to be the dominant motive (see Figure 5).<sup>11</sup> It should be noted here, however, that ‘South’ is a broad category that not only encompasses the Great Lakes Region, but also other non-OECD countries. In reality, many initiatives do not involve any actor group from the Great Lakes Region itself, but mostly involve manufacturers from other continents. Hence, the North-South graph is somewhat contradictory to the actor involvement pie charts. A more specific definition of ‘South’ would have probably shown significantly more northern origin of the involved actors.



**Figure 5** Origin of actors for each conflict mineral initiative for each year (cumulative).

<sup>11</sup> The North and South division is based on the involvement of at least one actor from the North (OECD) or the South (non-OECD) in a particular year. It does not provide any indication on the actual number of actors from the North and the South that are involved in the initiatives.

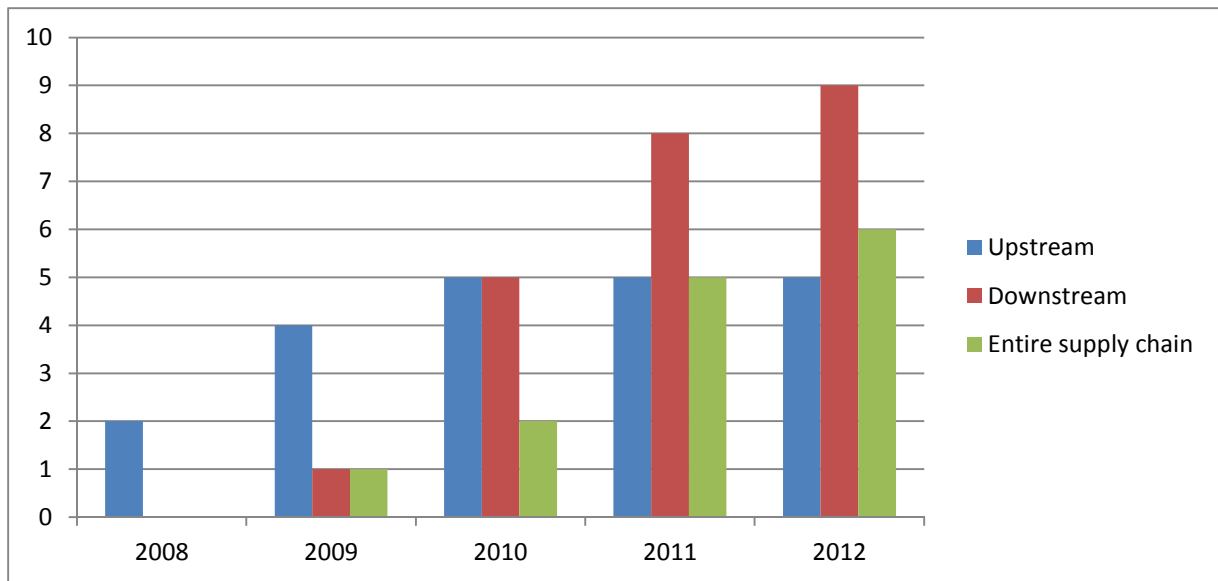




**Figure 6** Conflict mineral focus of each conflict mineral initiative for each year (cumulative).

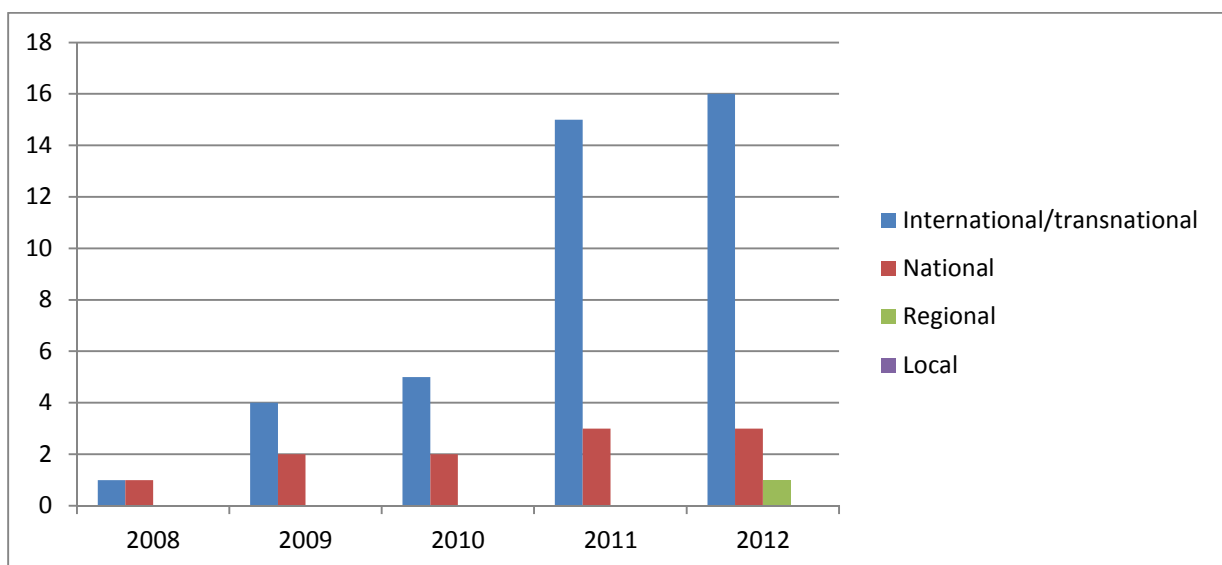
Turning to content characteristics, there are four different items which deal with the conflict mineral focus, supply chain focus, operational focus, and issue focus of the initiatives. To start with, the conflict mineral focus graph shows how many initiatives focus on a particular conflict mineral in a given year (see Figure 6). At least half of the initiatives focused on all four conflict minerals throughout the studied period. Broadly, two types of initiatives can be identified within the context of conflict mineral focus. One group focuses on all minerals and the other group on a single mineral. The former group mostly follows Section 1502 provisions and OECD guidelines. The latter group are notably the closed-pipe supply chain initiatives, who set up a separate supply chain for one particular mineral. In addition, there are several gold initiatives that focus on responsible sourcing of gold. The development of gold initiatives differs significantly from other conflict minerals. Gold received the least attention of all conflict minerals during the early years of 2008-2009, but rapidly caught up during the following years, claiming most attention now. There are several possible explanations for this development. First of all, gold has a different supply chain and market structure compared to the other conflict minerals. It is not a substance that needs further processing in order to be used. Gold is almost an end-product in itself. The metal is shipped to refineries and then sold on a bullion market. Because of these rather technical differences, contacts between gold business associations and other conflict mineral business associations, who operate in similar markets, were not yet well-established. Therefore, the gold industry was probably involved in a later stage during the OECD guidance and Dodd-Frank Act development. The different supply chain structure for gold would also explain why there are several initiatives that focus on gold alone. Another potential explanation is the major focus of NGO campaigns on all conflict minerals, except for gold. Only in 2012, international NGO Enough published a report addressing illegal conflict gold smuggling from East Congo (Enough, 2012).

The supply chain focus then shows an interesting development (see Figure 7). Initially, most initiatives would focus their activities mostly on upstream supply chains. The development of the OECD guidance and the Dodd-Frank Act seems to have shifted attention also more to downstream supply chains since 2010. Especially NGOs held downstream, conflict mineral processing industries responsible for the atrocities taking place in conflict mines. Furthermore, the year 2011 marks a significant rise of initiatives with an entire supply chain focus. Among these are the closed-pipe



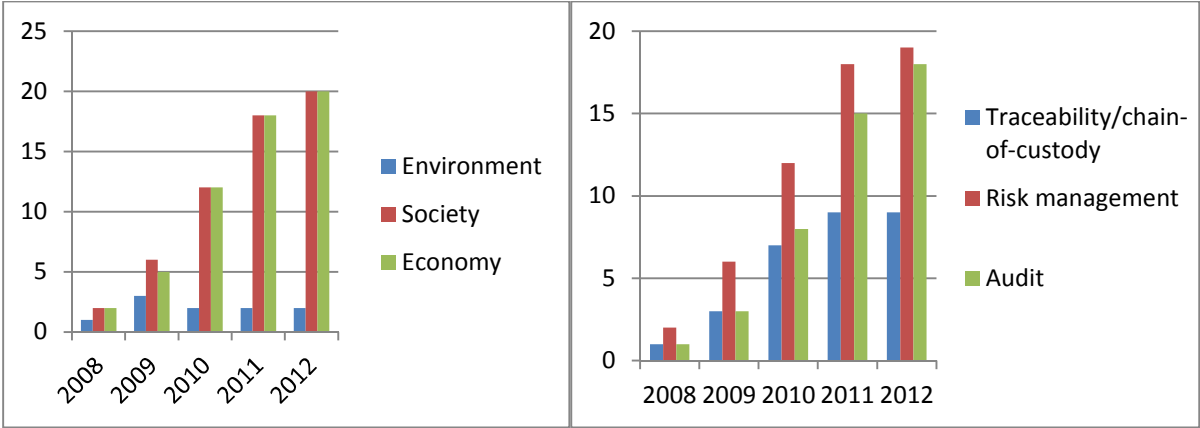
**Figure 7** Supply chain focus of each conflict mineral initiative for each year (cumulative).

supply chain initiatives, but also the Public-Private Alliance for Responsible Minerals Trade (PPA) which is a funding initiative. The resulting development is a sequence from upstream to downstream and then to the entire supply chain initiatives. It might be explained from a practical perspective. Many initiatives launched in the years 2011-2012 make use of the standards, expertise, contacts, and research of the earlier initiatives from 2009-2010, which laid down an ‘in-region’ infrastructure that future initiatives could rely on. The closed-pipe supply chain initiative of Conflict-Free Tin Initiative (CFTI), for instance, derives its tin from mines that have been certified by the International Tin Research Institute (ITRI) and the *Bundesanstalt für Geowissenschaften und Rohstoffe* (BGR) initiatives. Inversely, it implies that entire supply chain initiatives were not feasible in the early years of conflict minerals governance, because an appropriate governance structure did not exist within the Great Lakes Region. A similar logic could apply to downstream initiatives that rely upstream initiatives providing them with certified conflict-free minerals.



**Figure 8** Operational focus for each conflict mineral initiative for each year (cumulative).

Looking at the operational focus, conflict mineral initiatives mostly international in their focus (see Figure 8). The far majority of initiatives bring together companies from around the globe. Many mining companies and mineral traders are located in Africa, many smelters in Asia, gold refiners in Dubai, and electronic companies in the western world. Not surprisingly, 16 out of 20 initiatives are active on an international or transnational level in 2012. The minority of national and regional operational foci are typically the in-region, upstream supply chain initiatives that operate only in Congo or certain regions within Congo. However, the measure does not represent all existing in-region initiatives. Some in-region initiatives are also active in countries such as Rwanda and Burundi, making them international in their operational focus.

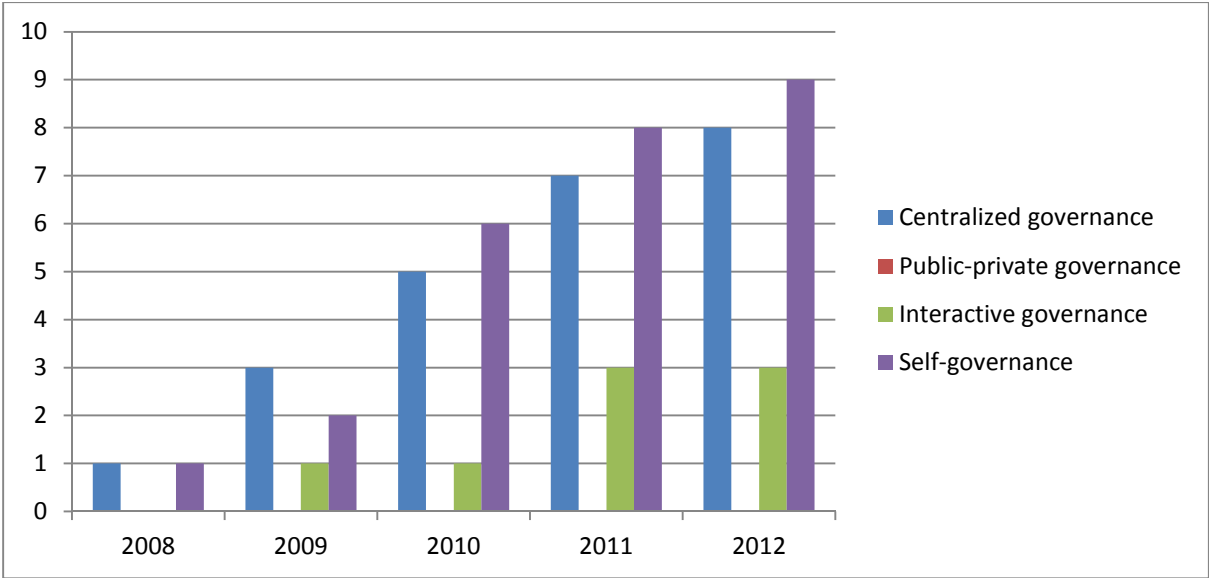


**Figure 9** Issue focus for each conflict mineral initiative for each year (sustainability (l) and technical supply chain (r) issues) (cumulative).

The data collection for the issue focus was divided in two parts (see Figure 9). One part focuses on the three dimensions of sustainability: environment, society, and economy. The other part deals with the technical supply chain issues of traceability and chain-of-custody, risk management, and audit. To start with sustainability issues, it is striking that the environmental dimension is hardly considered. One possible explanation relates to the themes that NGOs have addressed in their campaigns. Initial NGO campaigning was partly centred around environmental degradation due to mining activities in the very biodiversity-rich tropical forests of Congo. In later years, however, attention shifted more to social and economic issues. In addition, both the OECD guidelines and Section 1502 do not mention any ambitious environmental consideration. It could furthermore be argued that conflict mineral initiatives take a pragmatic stance in choosing between the different sustainability dimensions. The initiatives might recognize the environment as an important issue, but societal and economic issues gain priority since the main problem associated with the minerals is the conflict aspect and other related illegal activities. Human right abuses (societal dimension), improved livelihoods and the blocking of illegal money flows (economic dimension) have dominated conflict minerals governance discourse from the beginning. Environmental aspects, on the other hand, seem to have been out of the dominant discourse the entire time. Contrary to the environmental dimension, societal and economic considerations are very abundant in conflict mineral initiatives' policies. In 2012, all initiatives incorporate societal and economic considerations. Although these results might seem suspicious, they could be explained by the influence of OECD and Section 1502 standards on virtually every conflict mineral initiative. Both standards were developed to make an end to conflict mining and its associated illegal trade and money flows.

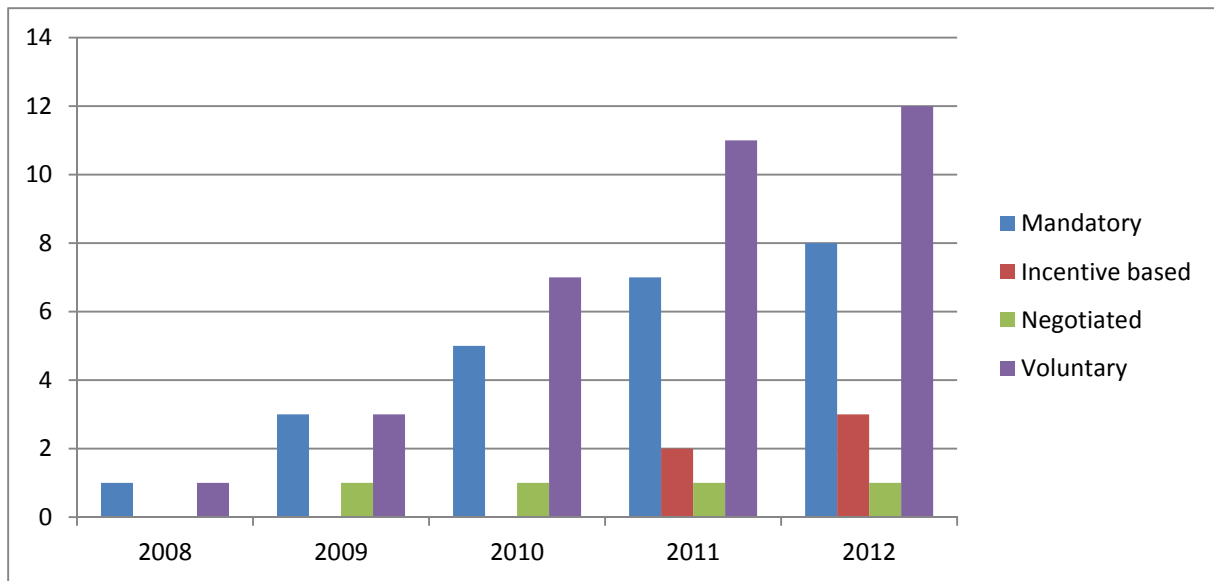
A similar phenomenon is observed in the technical supply chain issues graph (see Figure 9

(r). Risk assessment and audit issues score relatively high, as both OECD and Section 1502 standards demand the consideration of both issues in due diligence measures. Traceability and chain-of-custody mechanisms, ensuring legitimate mineral sourcing, score much lower. Possibly it is more difficult to establish these traceability mechanisms. It mostly requires upstream activity in countries with weak state capacities and a fragile security situation. Another reason might be the notion that many initiatives rather lean on and make use of existing traceability schemes removing the need for developing one’s own traceability standard.



**Figure 10** Governance modes for each conflict mineral initiative for each year (cumulative).

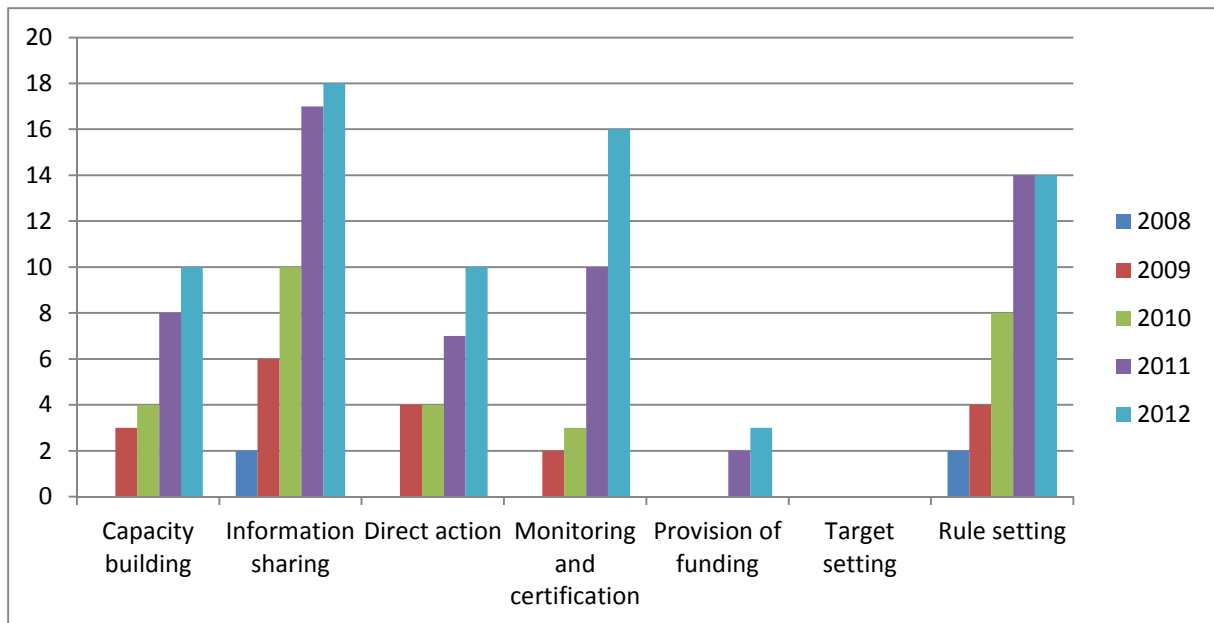
When conflict mineral initiatives are divided along their governance modes, it turns out that the vast majority of initiatives adopt a centralized governance or self-governance mode (see Figure 10). In the data collection, an initiative was marked centralized when a governmental actor is the dominant decision maker and possesses most decision making power. However, centralized governance does not necessarily imply an absolute lack of other stakeholder involvement. It is centralized in the sense that a governmental actor is the principal actor and market and civil society actors are the main recipients of governmental incentives (Driessen *et al.*, 2012). In the case of conflict minerals governance, governmental actors are mostly states and their agencies, such as the *Bundesanstalt für Geowissenschaften und Rohstoffe* (BGR) and Dubai Multi Commodities Centre (DMCC). Here, it is also observed that governmental influence is still essential in driving transnational governance. The self-governance initiatives, on the other hand, developed out of private actor efforts, notably business associations and companies and are voluntary in character. Interestingly enough, however, several business association initiatives have made conflict minerals governance standards mandatory to their members, transforming their conflict mineral standards into an entry barrier for membership of a business association. Next, the interactive governance mode initiatives often integrate and involve members of other initiatives. It seems their emergence flows out of previous interaction events where several centralized and self-governance initiatives and their actors decided to bundle their forces to establish new initiative. Public-private governance is absent in the diagram, as NGOs are almost always involved in the governance processes of the conflict mineral initiatives and because actors do not work with state-industry covenant agreements.



**Figure 11** Governance instruments for each conflict mineral initiative for each year (cumulative).

Moving on to governance instruments, the graph shows that many initiatives adopted voluntary instruments, such as certification standards and risk assessment frameworks (see Figure 11). At the same time, the graph does not do full justice to the nature of these voluntary instruments. Although many of these regulatory standards are voluntary in nature, they can be of a *de facto* negotiated or even mandatory instrument nature. With the OECD guidelines and Section 1502 of the Dodd-Frank Act breathing down their neck, many companies turned towards their industry representatives who provided them with the necessary information on measures companies need to take in order to be compliant. As many business associations have made OECD- and Section 1502-based standards mandatory to their members, most notably in the gold sector, the standards are given an unofficial negotiated or, one could argue, even a mandatory instrument status. Furthermore, the relatively high number of conflict mineral initiatives using mandatory instruments could show there is still a need for a legislative framework in which private and civil society can develop their own, more specific regulatory standards. Many companies complained, for instance, about the amount of time needed for the development of the Dodd-Frank Act (about two years), showing that companies wish for regulatory certainty on which they can base their own standards. Next, initiatives making use of incentive-based instruments provide funding for conflict mineral initiatives. Although many initiatives indicated their need for more funding in order to extend their conflict mineral projects and standard setting (including the International Tin Research Institute (ITRI) and Conflict-Free Smelter (CFS) initiatives (Hill, 2011)), the number of funding initiatives remains low.

The governance functions graph provides information on the type of governance instruments used to address the conflict minerals issue (see Figure 12). One striking observation is the rapidly increasing share of monitoring and certification tools over the years. An explanation for this development could be that there is a delay effect. First, an initiative needs to lay down proposals to its members and its stakeholders for rules concerning monitoring and certification. After agreement is reached, additional time is needed to implement the monitoring and certification rules. The monitoring and certification function therefore follows after information sharing and rule setting functions have been established. In turn, the rule setting and information sharing governance



**Figure 12** Governance function for each conflict mineral initiative for each year (cumulative).

functions score higher than the capacity building and direct action governance functions, which require the initiative to be active in the Great Lakes Region. It seems that many of the initiatives have no interest in starting to source conflict minerals in the Great Lakes Region themselves. It seems to confirm that initiatives with a downstream focus rather lean on upstream-focused initiatives to acquire their conflict-free minerals. Another observation relates to the occurrence of the provision of funding function. The number of initiatives with this function is directly related to the number of initiatives that make use of incentive based instruments. It is difficult to find an explicit cause for the late development of funding initiatives. Companies and business associations sometimes lack sufficient financial resources that would help them to address the conflict minerals issue in a more effective way. Possibly, there is also too little at stake for most governments to allocate funding for conflict mineral challenges. At the same time, states in the Great Lake Region also lack the financial means to deal with the issue. Similarly, NGOs have modest budgets at their disposal which they mostly use for capacity building and direct action functions. It is furthermore striking that the target setting governance function, in terms of the amount of conflict-free minerals extracted, is not applied by any conflict mineral initiative. Perhaps initiatives keep their targets confidential or open-ended. At the same time, many initiatives are admittedly still in an early implementation phase. The initiatives operating in the Great Lakes Region itself mostly conduct pilot phase projects that only serve a small portion of the minerals market. Rather than a numerical target, these initiatives might aim for more qualitative targets such as a functioning certification system.

#### 4.5. Discussion

Looking at the development of conflict minerals governance, one important observation is that the governance arena has seen a great proliferation of initiatives. In addition, initiatives are not just initiated by public actors, but increasingly by private actors. It seems that the NGOs can be credited for the resulting boom in conflict mineral initiatives, as conflict minerals governance was virtually nonexistent before. Companies and their business associations, on the other hand, have been keen in picking up the signal send out by the NGOs early on. The observation that the International Tin

Research Institute (ITRI) already started developing their initiative in 2008 exemplifies the sensitive sensors of business associations with regards to NGO campaigning. Moreover, the actor involvement increasingly diversified over the years.

Turning the attention towards the kind of conflict minerals the initiatives take into account, it becomes clear that initial attention was mostly focused on the 3Ts (tantalum, tin and tungsten). A relatively simple explanation is that NGOs mostly target electronics and communication industries, which hardly use gold. Using catch phrases such as 'blood mobiles' (Nathan & Sarkar, 2010), these industries mostly started to target their tantalum, tin, and tungsten supply chains. Although gold was relatively neglected in the beginning years of conflict minerals governance, it changed with the development and adoption of the OECD guidance in 2009-2010.

Another observation is that early initiatives mostly focused on single or a few stages in the conflict mineral supply chains. Later initiatives, starting in 2011 and 2012, also took an entire supply chain focus. One explanation for this pattern could be that the early initiatives provided the infrastructure and know-how to develop an entire supply chain approach. Another explanation relates to the adoption of the Section 1502 provisions, which collapsed the Congolese minerals trade and damaged thousands of livelihoods as many companies wanted to avoid the regulatory burden of reporting to the US Securities and Exchange Commission (SEC) to sell at the US market. Since no company wanted to source Congolese minerals anymore, it motivated the Conflict-Free Tin (CFTI) and the Solutions for Hope (SfH) initiatives to deliberately source from the Congolese region.

It was furthermore noted that most of the conflict mineral initiatives apply an international focus and concentrate mostly on societal and economic issues, rather than environmental issues. The lack of environmental interest is striking. In the gold sector, for instance, policies to prevent cyanide pollution have been in place for years. In addition, most initiatives focus on risk management and audit issues in terms of technical supply chain issues. Traceability and chain-of-custody issue foci are less observed among the conflict mineral initiatives. It seems that these technical supply chain foci are related to the supply chain focus of conflict mineral initiatives. Upstream initiatives tend to focus on traceability and chain-of-custody issues, while downstream initiatives concentrate more on risk management and audit procedures.

In terms of governance characteristics, the most observed governance modes are centralized and self-governance modes, which link to the most dominant actor groups in conflict minerals governance: governments and private actors. In turn, the governance modes are reflected in the type of governance instruments that are applied by the initiatives. Mandatory and voluntary instruments dominate the conflict minerals governance landscape.

However, a more diverse picture arises when attention is drawn towards the governance function development. The increase in the use of monitoring and certification mechanisms only follows after information sharing and rule setting functions have been met. In addition, hardly any of the initiatives provides funding for other conflict mineral initiatives and none set numerical targets for the amount of conflict minerals the initiative aims to extract from the Great Lakes Region. The conflict minerals governance arena might still be too young to set clear numerical targets and organize extensive funding programmes and initiatives.

## 5. Development of conflict mineral initiatives interaction

Similar to the previous section, the interaction development of conflict mineral initiatives is discussed in a contextual and a systematic way. The first part presents several drivers that stimulated conflict mineral initiatives to interact, after which several mechanisms and pathways are discussed which show in what ways conflict minerals governance interact.

After providing several contextual explanations for interaction between conflict mineral initiatives, the interaction development of the conflict minerals governance arena is discussed in a more systematic way by presenting the development of several interaction characteristics. The development of interaction characteristics is not only discussed per year, but also per stage in the governance process. The section ends with a brief discussion on interaction development in the conflict minerals governance arena.

### 5.1. Interaction drivers

One of the core arguments of the thesis is that conflict mineral initiatives interact intensively with one another and that this interaction results in positive outcomes for conflict minerals governance. However, before describing in what ways and to what extent initiatives interact, it is necessary to go more into the motives of the initiatives that makes them want to interact with other initiatives in the first place. The paragraph mostly follows the list of potential interaction drivers for transnational governance initiatives of Eberlein *et al.* (forthcoming), explaining how interaction between initiatives is driven by each of these factors.

First, the structure of the governance problem at hand is a very influential driver of interaction. The global supply chains of conflict minerals connects companies, traders, smelters, processors and manufacturers from virtually every continent on the globe. In addition, conflict minerals serve different markets. Roughly speaking the coltan, cassiterite, and wolframite minerals serve the electronics market, while gold mostly serves the jewellery market and shows a different supply chain structure. Under pressure from NGOs, the OECD guidelines, and Section 1502, different actors in the supply chains were forced to contact each other in order to comply with the expectations of NGOs, and the OECD and Section 1502 provisions. However, before the emergence of these initiatives, there was little contact between the different stages of the supply chain. On top of that, hardly any knowledge existed on the upstream supply chain in the Great Lakes Region. Due to the illegal trade flows, it was not known how conflict minerals found their way from the conflict mines to traders along the East African coast. At the same time, the conflict mining took place in a very fragile area of Africa in terms of security and state capacity.

Over the years, the structural governance problems have been addressed in conflict minerals governance, but it required much interaction between actors along the supply chain and between different actors at each stage of the supply chain. Studies were performed to map the upstream conflict minerals supply chains (e.g. Cuvelier *et al.*, 2010; International Alert, 2010; Spittaels, 2010). Contact was made with the national governments in the Great Lakes Region and NGOs assisted in in-region research and delivered additional local knowledge. Great Lakes Region states were assisted in capacity development to keep the mines secure and more demand for conflict-free minerals was created downstream. Lastly, certification tools and traceability standards were designed to make sure that conflict-free minerals were not illegally switched with conflict minerals somewhere else in the supply chain. In other words, to make sure that the minerals are conflict-free, every stage in the supply chain has an important role to play and has to assist other actors in the supply chain.



Second, next to the structure of the governance problem, actor characteristics are one of the main drivers of conflict mineral initiatives interaction. In the previous section, it was learned that most involved actors have either a business or government background. It could be argued that there is a large degree of alignment between the interests and values of the two actor types. Both companies and governments are interested in securing supply chains of natural resources to maintain economic growth levels. Secondly, more than companies, western states claim to have an interest in upholding human rights and promoting democracy. Companies, on the other hand, are more fearful about potential reputation losses. With ever-increasing connectivity around the globe, a company's faux pas is more easily made public to the outside world. Fortunately, one might claim, the conflict minerals issue affects the largest electronic companies in the world, such as Apple, HP, Intel, and Motorola. Not only are these large companies more vulnerable for reputation loss, they also possess the necessary resources to address the issue and to become front-runner companies in conflict minerals governance, which is also happened in this case. The vacuum created by the lack of expertise on the Great Lakes Region was subsequently filled up by NGOs and research organizations. Instead of being merely consulted, these actor groups were suddenly crucial to make conflict-free supply chains operational.

With regards to the third interaction driver, industry characteristics, it could be added that several business associations have been instrumental in integrating and representing industrial actors, especially in developing the International Tin Research Institute (ITRI) and Conflict-Free Smelter (CFS) initiatives. It can be argued that the expertise of business associations made the process of connecting different supply chain stages for mineral traceability purposes much smoother. Furthermore, it should be noted that the inclination of extractive and electronic companies to address the conflict minerals issue fits in a development of earlier transnational resource governance initiatives. The Kimberley Process, established in 2003, aims for instance to end the phenomenon of blood diamonds. Around the same time, the Extractive Industry Transparency Initiative (EITI) was set up in 2002 to promote more transparency and reduce corruption in the extractives sector. Much of conflict minerals governance, however, goes beyond these earlier initiatives by not just making the extractive companies responsible, but also the end-user. In essence, it makes every participant in the conflict mineral supply chain co-responsible for the atrocities in the Great Lakes Region.<sup>12</sup>

Lastly, Eberlein *et al.* (forthcoming) go on to argue that interaction is also shaped by social, economic, technological, and political structures. As these drivers operate on a system level, it falls outside the research scope of the thesis, because the initiatives themselves form the level of analysis rather than influencing factors that exist on a system level. They do, however, play their part in conflict mineral initiatives interaction. As one example of how technological structures make a difference, the *Bundesanstalt für Geowissenschaften und Rohstoffe* (BGR) initiative has developed a fingerprinting technique that makes it possible to identify the origin of the minerals without the need of additional traceability information, such as tagging. Such a technique significantly alters the way in which minerals certification could be managed.

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<sup>12</sup> Such extension of sourcing responsibility is also seen in what came to be known as the Ruggie Framework, a UN document outlining how companies are co-responsible for the protection of human rights. The Framework has now been implemented in the OECD guidelines. In the chemicals sector, the EUs REACH regulation requires chemical companies to request information on safety and health issues of chemical substances they acquire from their suppliers.

## 5.2. Interaction mechanisms and pathways

Transnational governance interaction research is not just concerned with interaction drivers. There are also different pathways and mechanisms through which drivers can influence interaction. Where a driver could be viewed as a bull waiting to be unleashed into the arena, the gate that prevents the bull from entering the arena can be seen as the pathway. The man opening the gates is then the necessary mechanism, or conductor, to allow the bull to enter the arena and fight with the matador. In reality, however, there are usually many potential pathways available through which drivers can operate. In this context, Eberlein *et al.* (forthcoming) draw attention to the site of interaction, which refers to the different institutional settings where interaction may take place, as an important determinant for the available mechanisms and pathways.

The conflict minerals governance arena has developed many potential sites of interaction throughout its development. One of the most important venues for interaction are the multi-stakeholder meetings that are jointly organized by the OECD, the International Conference on the Great Lakes Region (ICGLR) and the United Nations (UN). The first meeting was held in May 2011 and three more would follow in later years. The meetings bring together a broad range of actors from governmental, market, and civil society spheres. The forum intends to “facilitate constructive discussion around workable approaches for due diligence implementation in the tin, tantalum and tungsten (..) and gold supply chain” (OECD, 2013). The meetings include presentations by many conflict mineral initiatives and discussion panels on practical due diligence implementation experiences. During interviews, many initiatives themselves have confirmed the important role of this meeting in coordinating measures to end the sourcing of conflict minerals and, perhaps most importantly, to agree upon implementation measures to create a more uniform approach.

Similar venues like the multi-stakeholder forum are also organized by other initiatives, though on a smaller scale. The Public-Private Alliance for Responsible Minerals Trade (PPA) claims to provide “a platform for coordinated, productive dialogue among government, industry, and civil society in a non-regulatory setting” (PPA, 2013). Several other conflict mineral initiatives are part of the Public-Private Alliance for Responsible Minerals Trade (PPA) governance committee, which was mentioned by one of the interviewed initiatives as a ‘company forum’. Yet another forum is organized by the Electronic Industry Citizenship Coalition (EICC), together with the Global e-Sustainability Initiative (GeSI). Both business associations organize conflict mineral supply chain workshops and draw a similar crowd that consists of governmental, market, and civil society actors, although companies tend to dominate the workshops. In their mission statement, Electronic Industry Citizenship Coalition and Global e-Sustainability Initiative state these activities intend “to reduce duplication of efforts to improve transparency in supply chains that provide metals used in electronics products” (EICC & GeSI, 2012: 1). The workshops aim to discuss progress, harmonization of standards, and the development of a next generation of initiatives (EICC & GeSI, 2013). Overlapping memberships are a common phenomenon in these forum initiatives, which provide further pathways of interaction. The overlapping memberships were seen by one observer as instrumental in providing more harmonization among the different standards and operations, and in the creation of new and more effective conflict mineral initiatives.

Another important set of pathways is provided by several governance tools and techniques. It was already shown that the OECD Due Diligence Guidelines discussions bring together a multitude of actors to their multi-stakeholder forum. The same can be observed in other standard-setting initiatives, in certification systems, and in audit processes. Due to the unfamiliarity with these

governance tools and techniques, companies have a significant interest in training and knowledge exchange with other actors, which is why companies are so keen to attend these forums. There is also a financial incentive for companies. One interviewed initiative mentioned that conflict-free minerals sourcing from the Great Lakes Region results in many additional costs for the companies themselves. It is therefore in a company's interest to design governance structures in the most effective and efficient way possible in order to keep additional costs low. It is also mentioned by several initiatives that metagovernance is a preferred pathway to harness conflict minerals governance. Both external and internal meetings of conflict mineral initiatives are often aimed at harmonizing standards, on improving governance structures, and on setting up new initiatives on the basis of practical experiences. This helps to fill up gaps in current conflict minerals governance practice.

One often observed metagovernance tool in conflict minerals governance is “conditional rule referencing” (Eberlein *et al.*, forthcoming: 20). This tool implies that initiatives recognize each other's standards, which makes it possible that compliance with another initiatives' standard also counts as compliance with one's own standard. Many initiatives refer to the OECD Due Diligence Guidelines and Section 1502 as an overarching framework for their own regulations. Compliance with such an initiative therefore also implies compliance with the OECD and Section 1502 provisions, saving companies time and resources. Conditional rule referencing also takes place between private sector initiatives themselves. There is a cross-recognition of gold refiner audits between the initiatives of Responsible Jewellery Council (RJC), the London Bullion Market Association (LBMA), and the Conflict-Free Smelter (CFS) protocol (LBMA, 2012). Yet another important, and more recent, metagovernance tool is applied by means of deliberate ‘enrollment’ of other initiatives and their standards (Braithwaite & Drahos, 2000). Especially in case of closed-pipe supply chain initiatives, several conflict mineral initiatives make use of the regulations of other initiatives to set up their own initiative. The Conflict-Free Tin Initiative (CFTI), for instance, relies on the traceability and due diligence mechanisms of the International Tin Research Institute (ITRI) initiative. At the same time, the Conflict-Free Tin Initiative (CFTI) demands Conflict-Free Smelter (CFS) compliance at the smelter stage. The Conflict-Free Tin Initiative subsequently creates a downstream demand for the conflict-free minerals. Rather than cross-recognizing the International Tin Research Institute (ITRI) and Conflict-Free Smelter (CFS) initiatives, the Conflict-Free Tin Initiative integrates their standards in their own initiative in the pursuit of creating a closed-pipe supply chain.

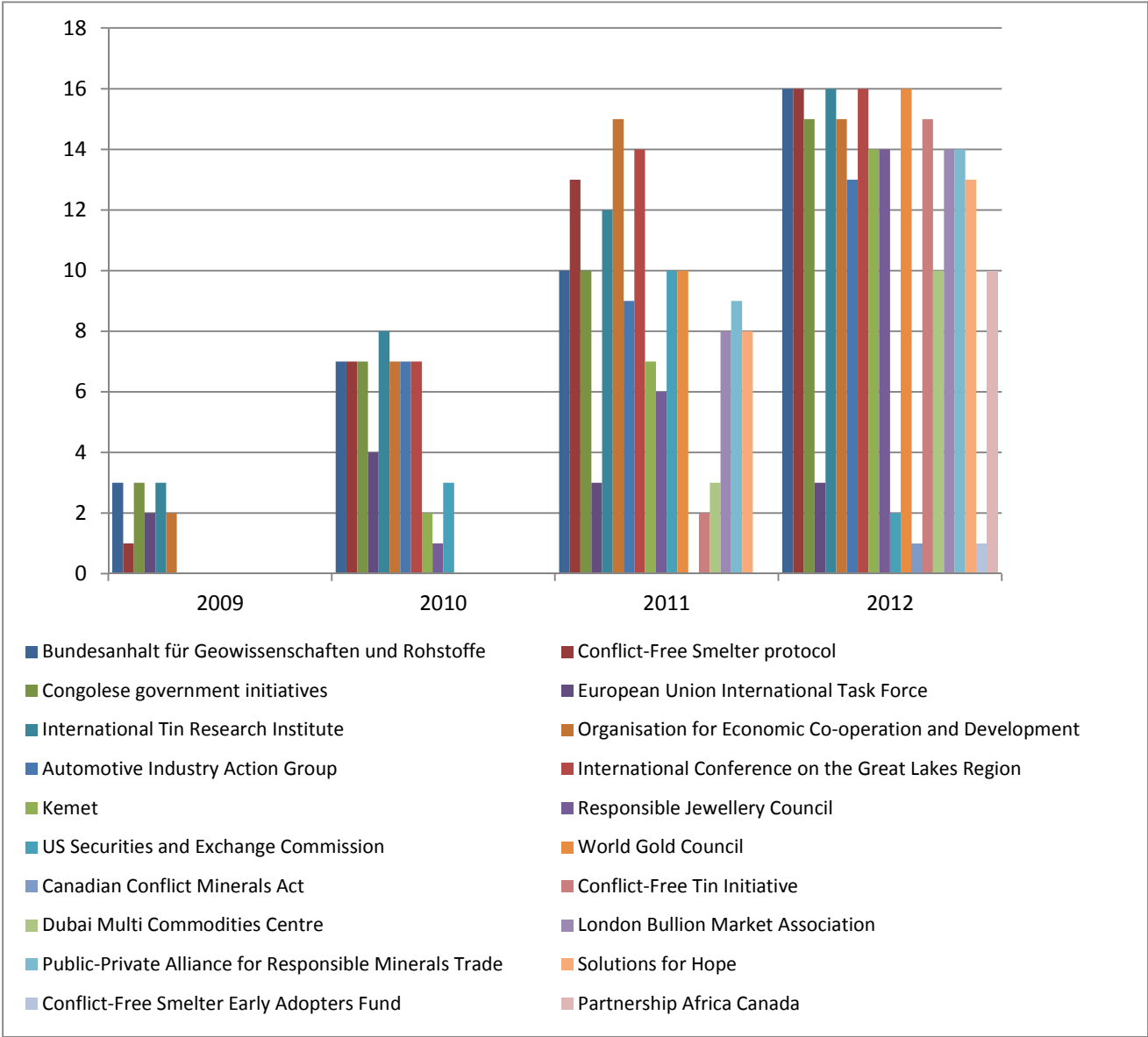
Other pathways of interaction are provided by in-region trips where initiatives visit the Great Lakes Region and where initiatives are often accompanied by other initiatives and representatives of the respective national and provincial governments. In addition, certain intermediating actors such as NGOs or research organizations, could serve as pathways of interaction in policy diffusion processes (Eberlein *et al.*, forthcoming: 19). One interviewed initiative explained that NGOs and community-based organization involvement helps to create higher levels of credibility and reliability for company- and business association-initiated initiatives. This way, NGO and community-based organization involvement legitimizes the activities of a conflict mineral initiative.

### **5.3. Interaction development for each year**

The last paragraph outlined several drivers, pathways, and mechanisms of conflict minerals governance interaction. In this paragraph, the focus shifts to interaction itself. In what ways do they interact with one another, what is the purpose of interaction and how did interaction develop over time? These questions are put central throughout the entire paragraph.

First of all, a general overview is presented of conflict minerals initiative interaction by showing how much they interact for each year. Attention is given to which kind of initiatives are more interactive. In the second part, interaction is further unravelled by presenting results on the analysis of actor involvement, character, issue focus and governance function that characterize conflict mineral initiatives interaction and their development for three different phases in the governance process instead of per annum.

Throughout 2008-2012 conflict mineral initiatives have developed extensive forms of interaction with one another. Although the quality of interaction might differ from initiative to initiative, it is shown that interaction has a significant influence on conflict minerals governance. The graph shows with how many other initiatives the respective initiative interacted for each year (see Figure 13).<sup>13</sup> Naturally, there is less interaction in the earlier years when there were much less

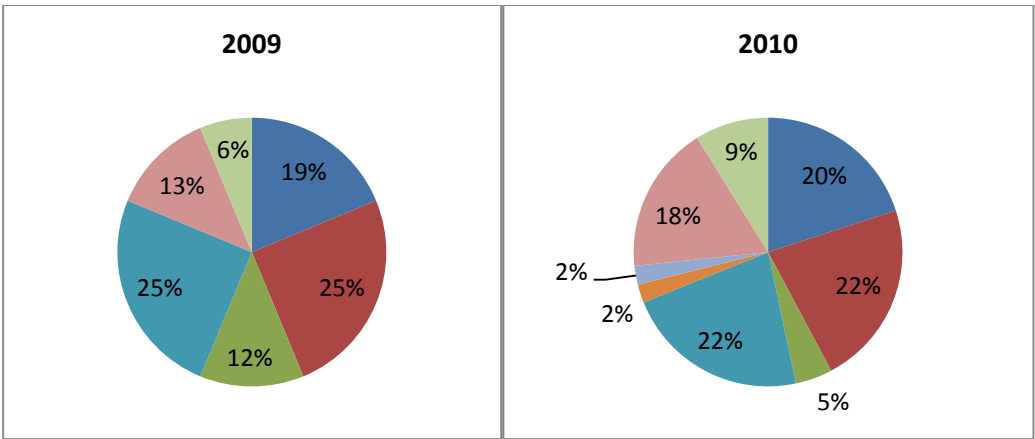


**Figure 13** Number of interactions with other initiatives for each initiative for each year (cumulative and limited to a maximum of one interaction with another initiative per year).

<sup>13</sup> Many initiatives started after 2009, which explains why there is no data for some years. Alternatively, they did not interact with another initiative in a particular year.

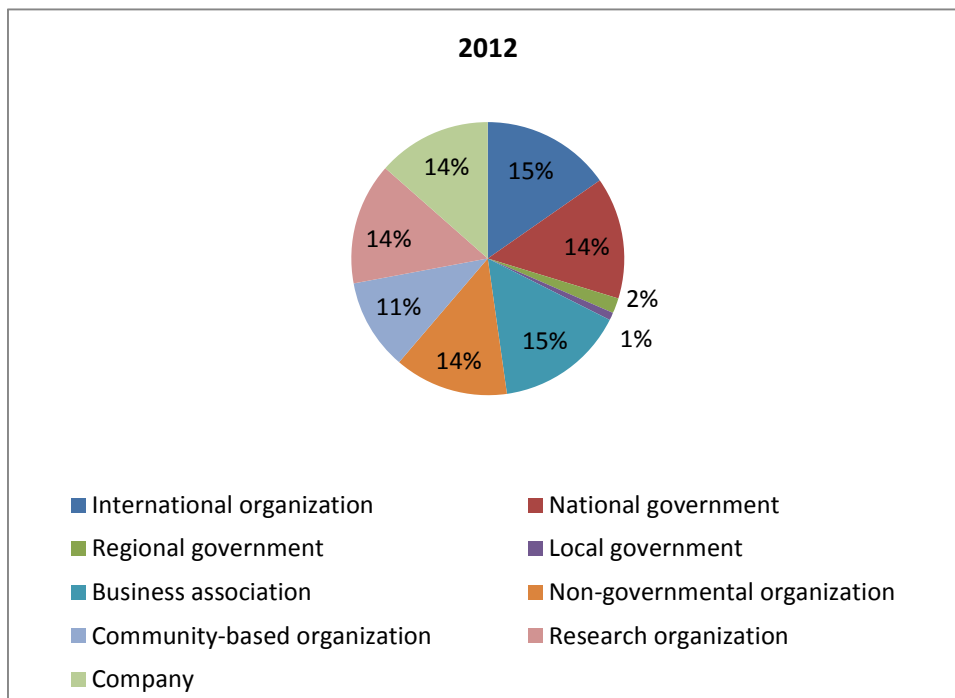
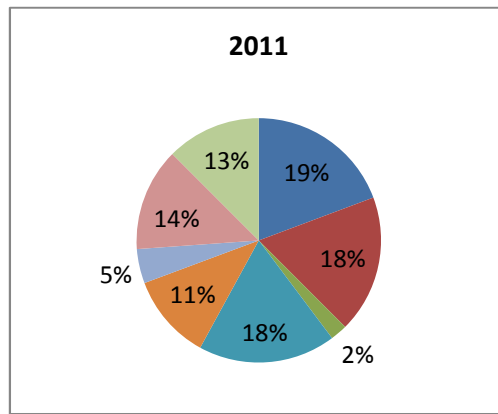
initiatives to interact with in the conflict minerals governance arena.<sup>14</sup> In 2008, there was no interaction at all. The graph also shows that many of the early initiatives, which were launched in 2008 and 2009, generated high numbers of interactions over time (except for the EU International Task Force (EU ITF)). However, several initiatives that were launched in the following years managed to interact just as much with other initiatives as initiatives launched in 2008 and 2009 (such as the International Conference on the Great Lakes Region (ICGLR) and the World Gold Council (WGC)). It implies that the year of establishment is not a key indicator for more interaction in the following years. Furthermore, the graph shows that most interactions took place in the year 2012.

Each interaction with another initiative also connects different actor groups that are members of the initiatives. The pie charts in Figure 14 show the involvement of each actor group in percentages for each year in the observed interaction. Each 'slice' therefore represents how much a particular actor group is involved in conflict minerals governance interaction relative to other actor groups for each year.<sup>15</sup> During the 2009-2010 period, interaction was mostly dominated by the involvement of international organizations, national governments, and business associations. One reason could be that 2009 and 2010 were formative years, where initiatives were mostly still working on strategies to tackle the conflict minerals issue. For the most part, the strategies depended on the legal framework set by international organizations and national governments, and the willingness of companies to participate, also through their business associations. After a regulatory landscape had developed, initiatives also involved NGOs and community-based organizations more, who provided them with more knowledge from within the Great Lakes Region. Their involvement was needed to assist several initiatives with the implementation of their programmes and to foster experience exchange. Furthermore, similar to the development of institutional characteristics, interaction development also shows a tendency towards more equal involvement of all relevant actor groups, apart from local and regional governments. In seeking interaction, it could be the case that initiatives instigate contact with other initiatives that bind other actor groups than the original initiative itself. Possibly, initiatives want to bring in many different perspectives from different actor groups in order to create more support for their programme, which would consequently lead to more effective implementation of the initiatives' programmes.

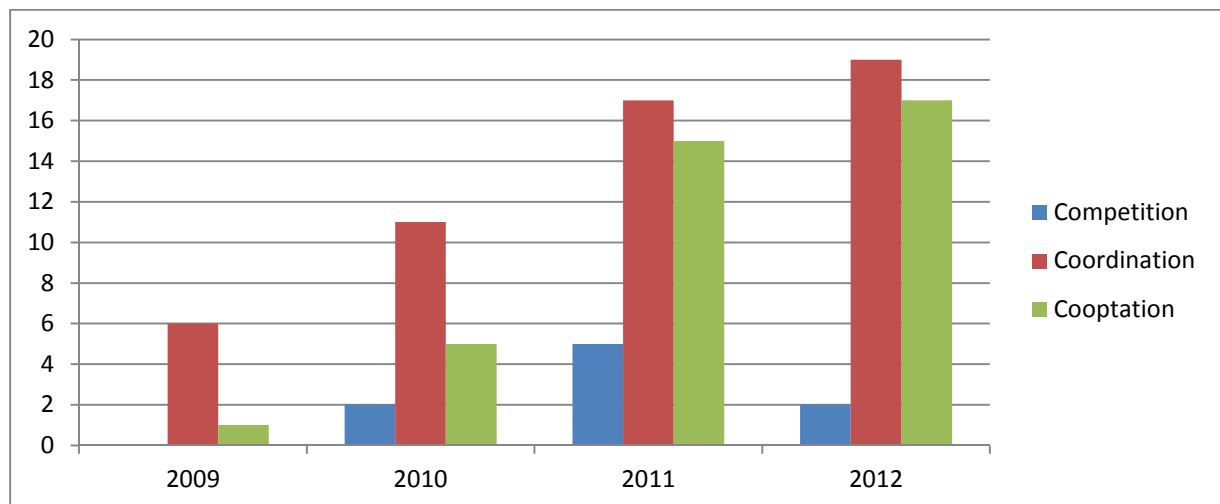


<sup>14</sup> There were 2 initiatives in 2008, 6 in 2009, 12 in 2010, 18 in 2011, and 20 in 2012 (see Appendix).

<sup>15</sup> An actor group is 'involved' when at least one actor group within the initiative is part of the interaction between two different conflict mineral initiatives in a particular year. In reality, some actor groups might be involved that do not officially belong to one of the initiatives, which would alter the pie charts.



**Figure 14** Percentages of each actor group involvement on total actor group involvement, as part of the cumulative total of interactions for each year.



**Figure 15** Interaction character of each interaction for each year (cumulative).

The nature of interaction was categorized in three different classes: competition, coordination, and cooptation (see Figure 15). Interactions of a coordinative nature are most observed in interaction development. This observation implies that there is a high degree of willingness to cooperate between initiatives, whether it concerns knowledge exchange or carrying out joint projects in the Great Lakes Region. The year 2011 shows a significant increase in the amount of cooptation interactions. The trend can largely be attributed to the implementation of the OECD Due Diligence Guidelines, which motivated many initiatives to integrate the regulatory standards of the OECD in their own standards and to participate in their multi-stakeholder forums. A similar event occurs in 2012, when initiatives take over further OECD guidelines, such as its Supplement on Gold, which received much input from the conflict mineral initiatives themselves. In addition, a trend is observed where other initiatives start to recognize each other’s standards. Several initiatives focusing on gold (such as the London Bullion Market Association (LBMA), the Responsible Jewellery Council (RJC) and the Conflict-Free Smelter (CFS) protocol) decided to cross-recognize each other’s standards for their own risk assessments and audit processes. Furthermore, the competitive interactions in 2010 and 2011 are mostly interactions with the US Securities and Exchange Commission (SEC). In the early development of the Section 1502 legislation, several were not satisfied with its contents. Either its ambition was too low or its implementation was too unclear. It seems that the Securities and Exchange Commission has taken the initial critiques into account, as the initiatives that competed with Section 1502 at first, now recognize its contents on their respective website or apply it in their own regulatory standards. The remaining competitive interactions take place between the Kemet and Solutions for Hope initiatives, who both compete in setting up a conflict-free tantalum supply chain.

Interactions were also studied for their issue focus. In terms of the three sustainability dimensions of environment, society, and economy, the main focus of interaction has been on society and economy (see Figure 16). The attention for environment in interactions remains low, though steady throughout the five years. It seems interaction is related to regulatory issues almost every time, whether it is about exchange of experiences and project results, or about recognizing standards of other initiatives. As many initiatives only pay attention to human right issues and illegal money flows and corruption, societal and economic dimensions dominate the issue focus. An additional observation is that societal and economic issues are always simultaneously considered in interaction. An interaction rarely concerns a societal or economic issue are only. An explanation for this observation could be that it is hard to separately approach both issues, as the dimensions influence each other a great deal. It is for instance the illegal mining that fosters illegal money flows and corruption. Most initiatives seem to recognize this logic and consequently focus on both

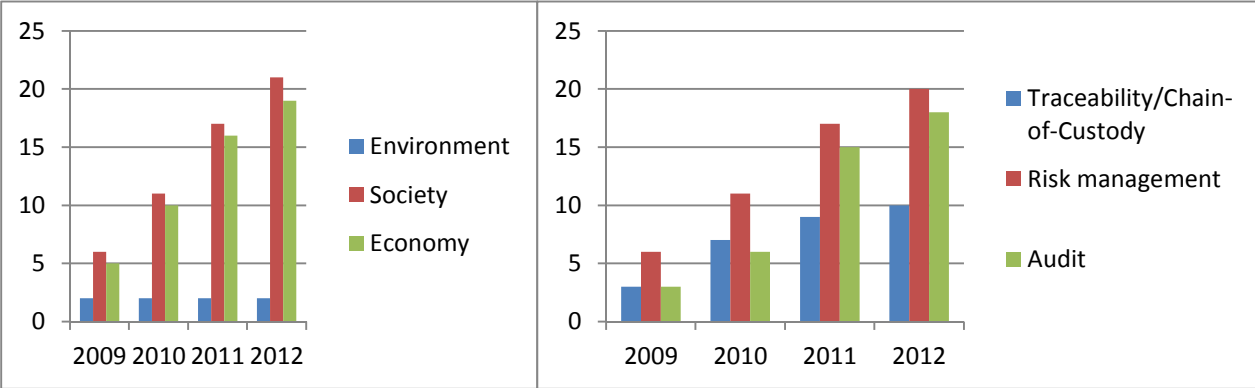


Figure 16 Issue focus of each interaction for each year (sustainability issues (l) and technical supply chain issues (r)) (cumulative).

sustainability dimensions. The few initiatives with an environmental focus are apparently not able to create a spill-over effect through their interaction with other initiatives, because the environmental focus in interaction does not increase.

Moving on to technical supply chain issues, an increasing trend of risk management and audit focus is observed, while the focus on traceability and chain-of-custody issues is almost stagnating (see Figure 16). One reason that many interactions might involve a risk management focus, is that risk management itself depends on other actors, who are mostly situated upstream in the conflict mineral supply chain. Downstream actors depend on due diligence measures their suppliers have already taken upstream to show that their end-products are conflict-free. Risk management focus therefore creates much interaction between upstream and downstream initiatives. Upstream initiatives typically interact back on traceability and chain-of-custody issues to the downstream initiatives. The number of interactions with a traceability and chain-of-custody focus are much lower, because there are much less initiatives that are active in the upstream supply chain. Apparently, the current number of upstream active initiatives is sufficient for the current demand for conflict-free minerals from the Great Lakes Region. However, it should also be noted that many upstream initiatives are still considered to be in their pilot phase with only a small impact on the regional minerals trade. Lastly, the audit focus develops much later compared to the other issue foci, but shows a strong increase in 2011. Not coincidentally, the strong rise coincides with the cooption of the OECD Due Diligence Guidelines and the development of the Dodd-Frank Act, Section 1502, which both require audits of due diligence measures.

Each year, information sharing is the most observed governance function that characterizes an interaction between conflict mineral initiatives (see Figure 17). Information sharing should be understood differently in this graph from its definition in the institutional characteristics development section. Rather than sharing information about the activities of an initiative to the public, information sharing is here concerned with exchange of knowledge and experiences between initiatives themselves. Most information sharing takes place at multi-stakeholder forums. Potential information sharing outside these forums are not taken into account in the data collection, as these

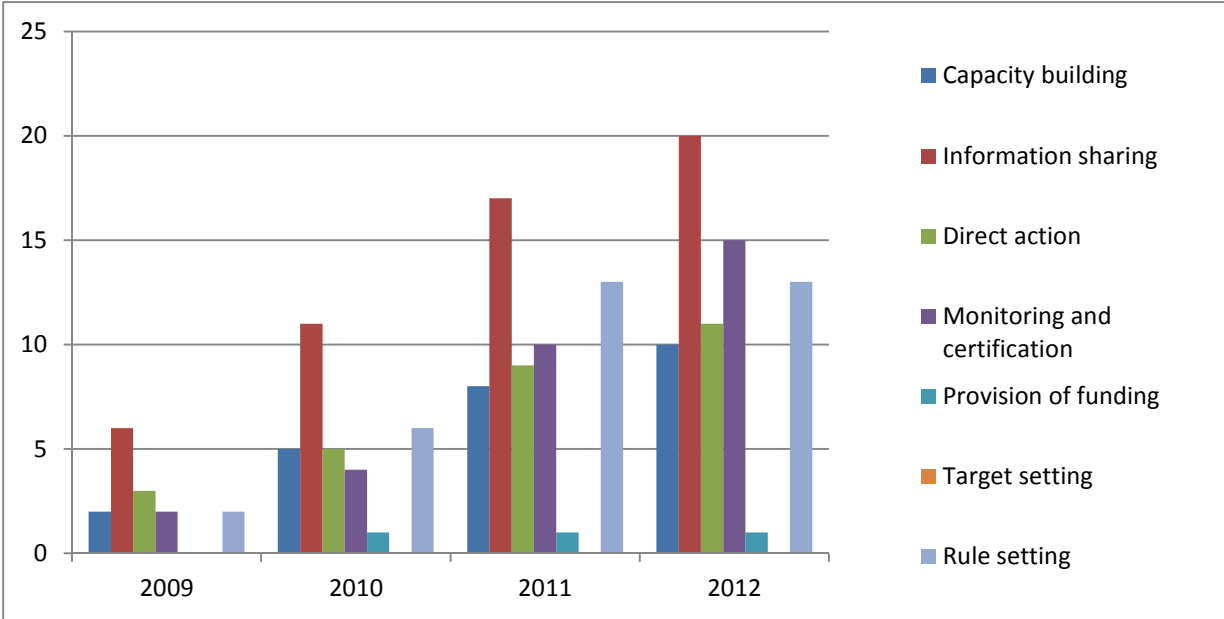


Figure 17 Governance function of each interaction for each year (cumulative).

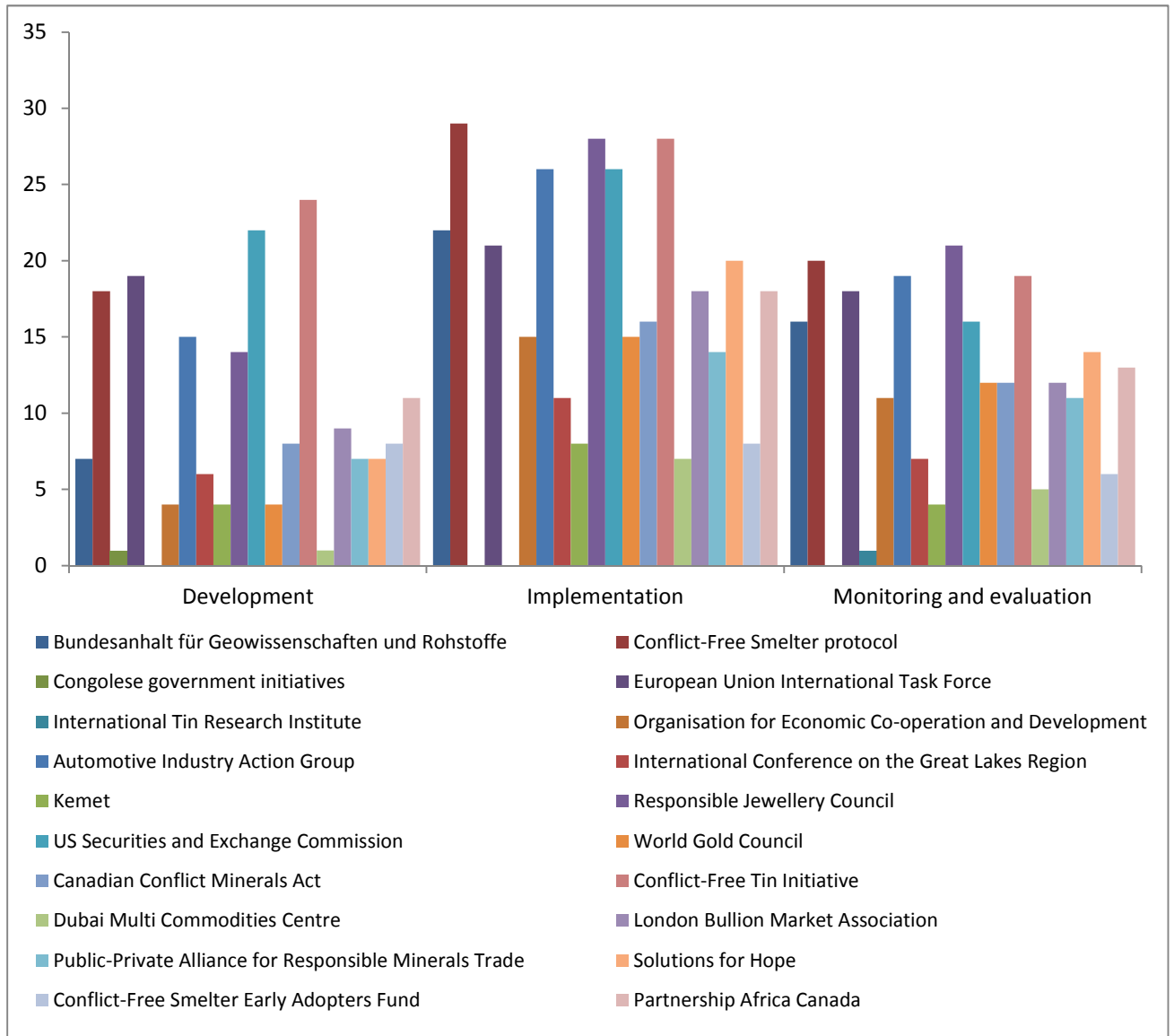


interactions cannot be verified with documentation. It could be argued that the different multi-stakeholder forums also provide a window of opportunity for a further deepening of interaction between different actors and initiatives. Several initiatives have been launched as a result of contact between different actors at multi-stakeholder forums, such as the Public-Private Alliance for Responsible Minerals Trade (PPA) and Conflict-Free Tin (CFTI) initiatives. Furthermore, in-region governance functions, like capacity building, direct action, and monitoring and certification, develop slower but take up a significant larger share of interaction in 2011 and 2012. This modest development could partly be explained by the smaller amount of initiatives that are active on the ground in the Great Lakes Region. Another possibility is that interaction of upstream, in-region initiatives only increased after a downstream demand for conflict-free minerals emerged. Next, the sudden increase in rule setting interaction can mostly be explained by the introduction of OECD and US Securities and Exchange (SEC) regulatory intervention. In addition, the provision of funding function is hardly a subject of interaction, since the goal of funding initiatives is mostly to sponsor the establishment of new conflict mineral initiatives. Lastly, there is no target setting interaction observed, as initiatives have not set mutual targets for themselves, nor jointly with one another.

#### **5.4 Interaction development for each governance process stage**

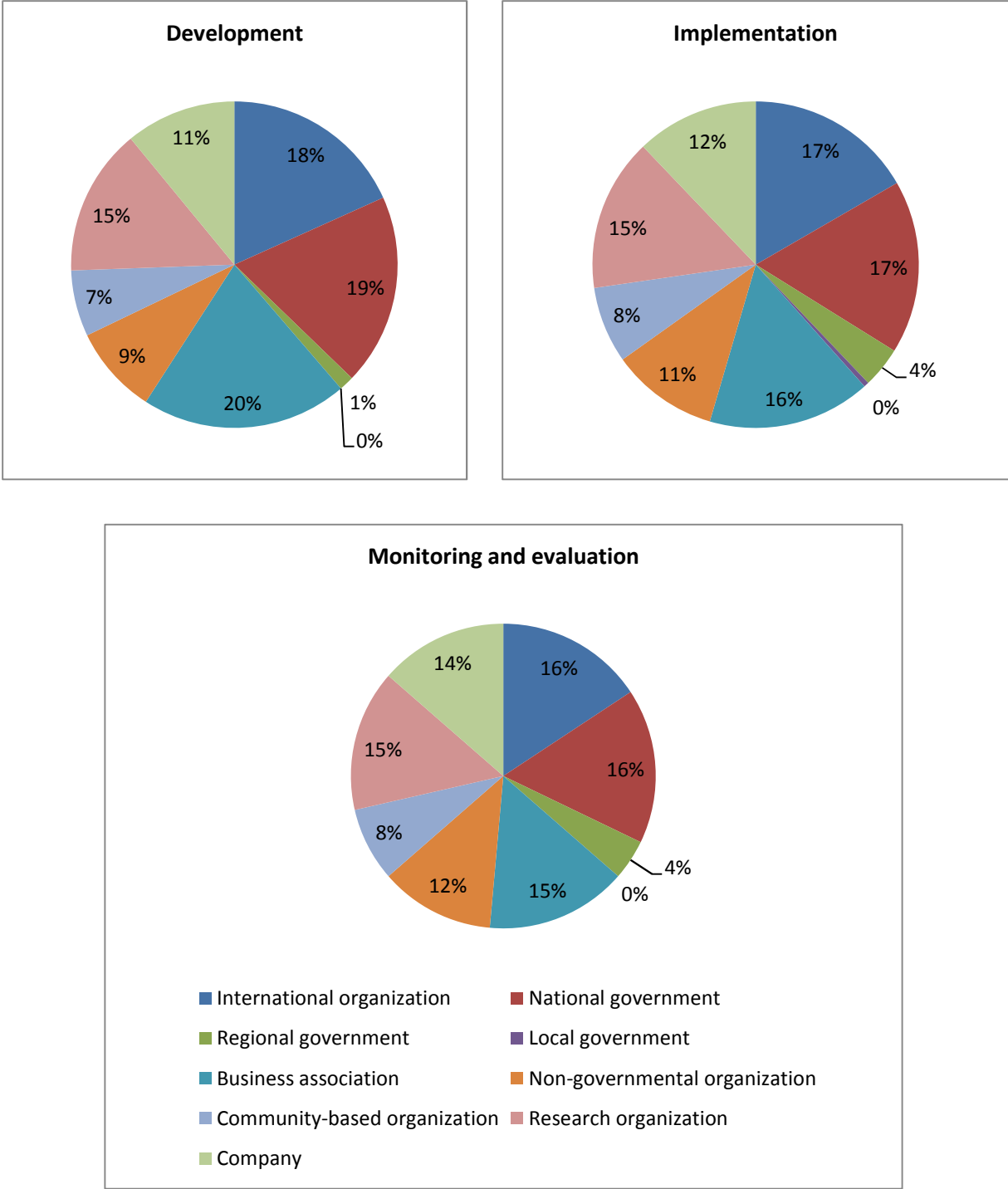
Another way to approach conflict minerals governance interaction development is to split interaction data according to different stages of the governance process. For the thesis, a distinction was made between three different stages for each initiative: development, implementation, and monitoring and evaluation. Each stage also represents the degree of development of an initiative. Generally, the initiatives who are in the monitoring and evaluation phase are further advanced in the governance process as initiatives in their implementation phase and their development phase.

Figure 18 shows the number of interactions of the listed initiatives with other conflict mineral initiatives for each stage of the governance process. It should be taken into account that the graph is not corrected for the number of years an initiative is active. With this precaution in mind, it does seem that most initiatives seek less interaction during the development stage. An explanation could be that an initiative is too preoccupied with setting up their own programme. The implementation stage, however, shows much more interaction. In carrying out conflict mineral programmes, initiatives often need additional expertise or resources from other initiatives in order to get their programme fully operational. Such a logic especially applies to initiatives that set up a due diligence programme. In order for companies to apply due diligence in their sourcing, they are dependent on in-region initiatives that have developed standards and procedures to extract conflict-free minerals. Next, the number of interactions in the monitoring and evaluation stage are generally much lower than in the implementation stage. The most obvious reason is that many initiatives have either not reached this particular stage yet or are only in it for a short time period. While monitoring and evaluation might seem a more internal affair compared to the other governance process stages, a high level interaction with other initiatives remains. For the most part, it takes the form of knowledge exchange on implementation of programmes and the development of regulatory standards. Another observed mechanism is the assistance of other initiatives in monitoring one's own activities, for instance in monitoring the situation at the mineral mines. Lastly, cross-recognition of each other's audit standards is another reason why initiatives keep interacting during the monitoring and evaluation stage.



**Figure 18** Number of interactions with other initiatives for each initiative for each governance stage (cumulative).

Interaction development can be further unravelled by paying attention to actor groups (see Figure 19). At first sight, there are no major differences between each stage of the governance process. Governmental actors (international organizations and national governments) and business associations are the most occurring actor groups in conflict minerals interaction. Furthermore, there is a higher rate of involvement of NGOs and companies during the implementation and the monitoring and evaluation stages in comparison to the development stage. With regard to NGOs, it could be argued that these actor groups have more important roles to play in the implementation and monitoring and evaluation stages. Generally, NGOs are the actors who execute schemes for upstream supply chains and who perform the monitoring and evaluation of initiatives' activities. With regards to companies, they seem to be less inclined to launch their own initiative, but are more willing to participate in several different initiatives as soon as they are set up. Especially large, multinational companies in the electronic and automobile sectors have a great interest in preventing



**Figure 19** Percentages of each actor group involvement on total actor group involvement, as part of the cumulative total of interactions for each governance process stage.

reputational losses, while at the same time securing resource flows. Therefore, these large companies actively participate in changing the regulatory landscape with the additional benefit of being viewed as a front-running company in the conflict minerals issue to the public.

When attention is shifted to the nature of interaction, no large differences are observed in the different governance process stages (see Figure 20). Most interactions are of a coordinative nature, indicating a high degree of willingness to cooperate in any governance process stage. The

graph also shows a high degree of cooptation in the amount of interactions during each stage, even during the development stage. Apparently, interactions in the development stage already result in a convergence of regulatory standards with other initiatives, if not even a full recognition and cooption of regulatory standards of other initiatives. The high portion of coordinative and cooptive interactions show that conflict mineral interaction is often of an ambitious nature and goes further than knowledge exchange alone.

In addition, a very low number of competitive interactions was observed. In almost every case of a competitive interaction, one of the initiatives was the Dodd-Frank Act, Section 1502. Even though several initiatives were still in their developmental stages during US Securities and Exchange Commission consultations, it did not withheld them from expressing their views to the Commission. It is also an example of how conflict mineral initiatives keep well track of the legislative development in the conflict minerals governance arena.

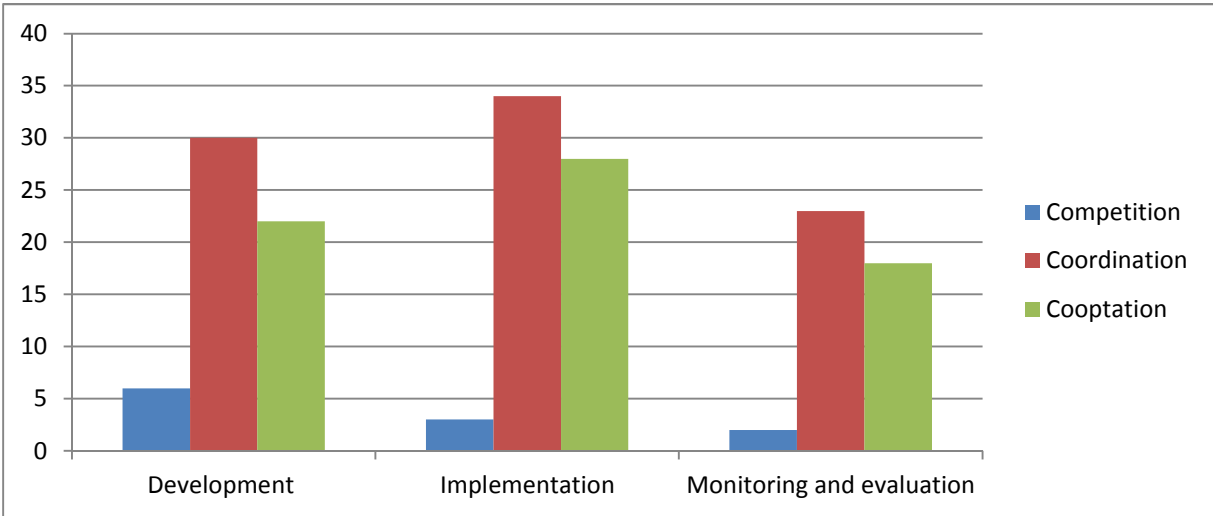
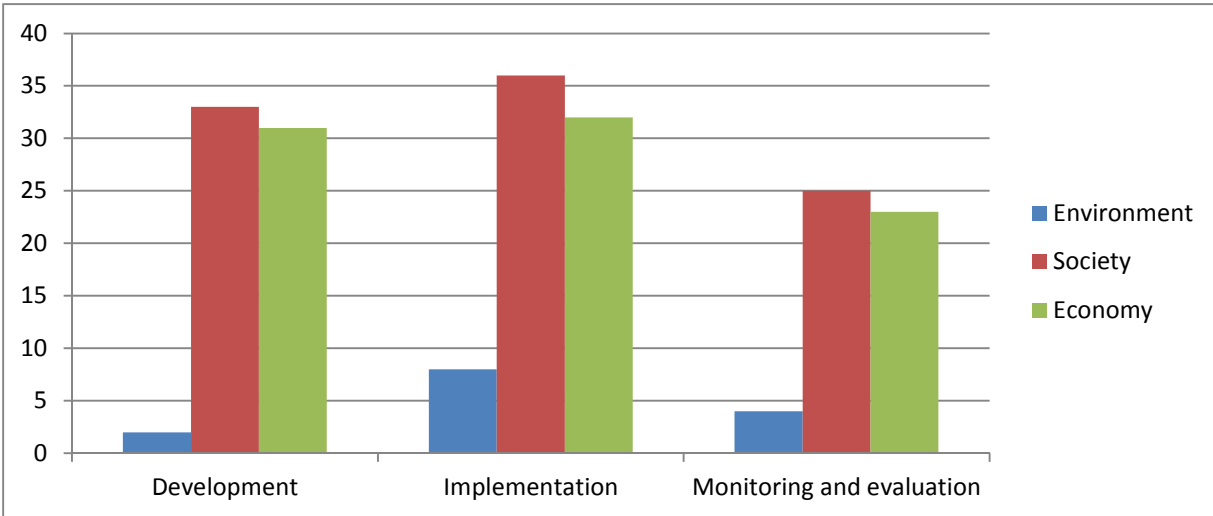
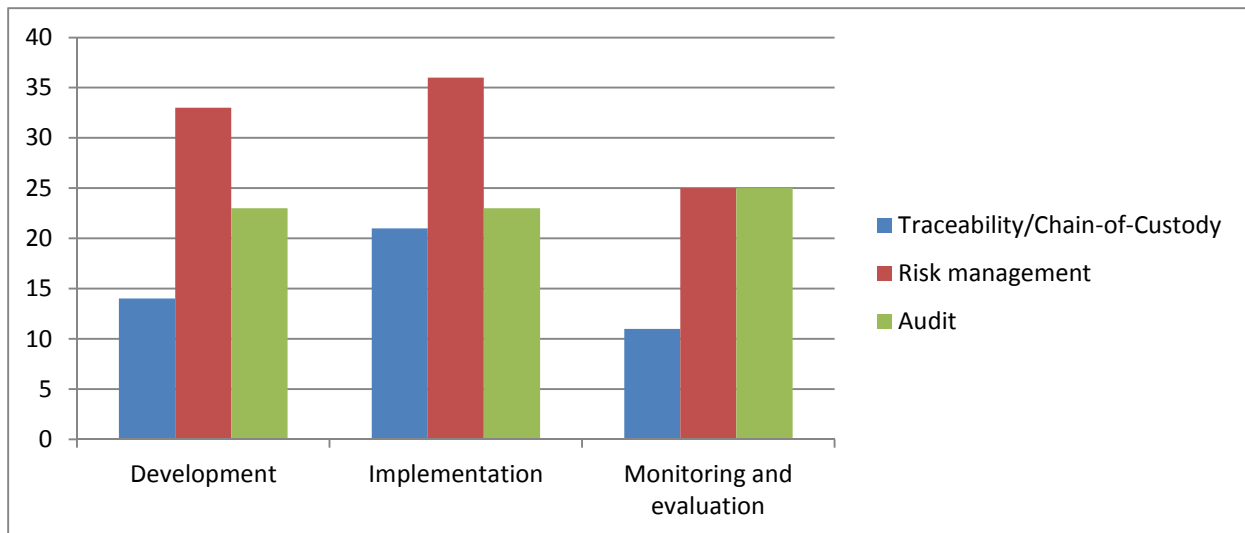


Figure 20 Interaction character of each interaction for each governance process stage (cumulative).





**Figure 21** Issue focus of each interaction for each governance process stage (sustainability issues (see page 67) and technical supply chain issues (cumulative)).

The issue focus graphs provide insight in the important issues for conflict minerals governance interaction (see Figure 20). To start with the sustainability dimensions, the graph shows that societal and economic considerations are dominant during all stages. This observation does not diverge from other observations which have showed the prominence of human rights and corruption and money flow issues in institutional characteristics of conflict mineral initiatives. It could also be argued that the sustainability focus of an initiative is determined very early in the development of the initiative and is not significantly altered by interactions with other initiatives during later stages of development. On the other hand, the strong focus of other initiatives on societal and economic issues also makes it less likely that a conflict mineral initiative is confronted with an environmentally-focused initiative. Without further NGO and governmental pressure, it is therefore unlikely that an initiative adopts another issue focus. Finally, the lower amount of interaction in the monitoring and evaluation stage can be attributed to a lower number initiatives that have reached this stage.

Next, the technical supply chain issue interactions do show several significant differences across governance process stages. First, the amount of audit interaction is about equally high during each stage, although relatively higher in the monitoring and evaluation stage. An audit by an independent third-party usually takes place when an initiative is in full operation and starts to reflect on its activities, making this the probable cause for a higher share of audit interaction here. Secondly, the traceability and chain-of-custody interaction is the highest in the implementation phase. Most likely, many initiatives only seek interaction with in-region conflict mineral initiatives at the moment where they have to carry out their regulatory that were set up in their developmental stage. It is in the implementation stage that the initiatives have to set up a conflict-free supply chain for which many seek alliance with an initiative that has already set up such a system. The reason of such interaction might lie in a lack of resources of the 'out-region' initiative, a lack of knowledge about local conditions in the Great Lakes Region, or because the in-region initiative has already set up an adequate traceability system, making the need of an additional system superfluous. Thirdly, risk management is the most observed issue focus of interaction. One cause of the risk management ubiquity is that the majority of conflict mineral initiatives adopt a risk management approach. However, the reason why they interact with each other on their risk management approaches does most likely have to do, as in more instances, with the OECD Due Diligence Guidelines and the Dodd-

Frank Act, Section 1502. A lot of these initiatives have been consulted in the development of the Guidelines and Section 1502 to find an approach accommodating the needs of companies active in the conflict minerals sector.

The governance function graph shows that most interactions are concerned with information sharing during each stage (see Figure 21). Especially in the development stage, the share of information sharing is larger than in other stages. Possibly, initiatives feel more inclined to exchange knowledge and experiences in order to avoid obvious pitfalls that would harm their effectiveness. In addition, the graph shows a larger share of capacity building and direct action interaction during the implementation phase, in comparison with other stages in the governance process. It could be argued that these two governance functions mostly manifest themselves after initiatives have developed a detailed programme for implementation. Furthermore, rule setting interactions are ubiquitous throughout every stage of the governance process. As the conflict minerals governance arena is a relatively new governance field, it could be suggested that all these initiatives are in a process of trial-and-error, because they do not know which governance tools and techniques are effective to approach the conflict minerals issue. Therefore, there is interaction about rules and standards during every governance process stage. Lastly, the absence of target setting interactions should again be noted. As conflict minerals governance is in an infancy state of development, the initiatives possibly do not dare to set hard, numerical targets yet.

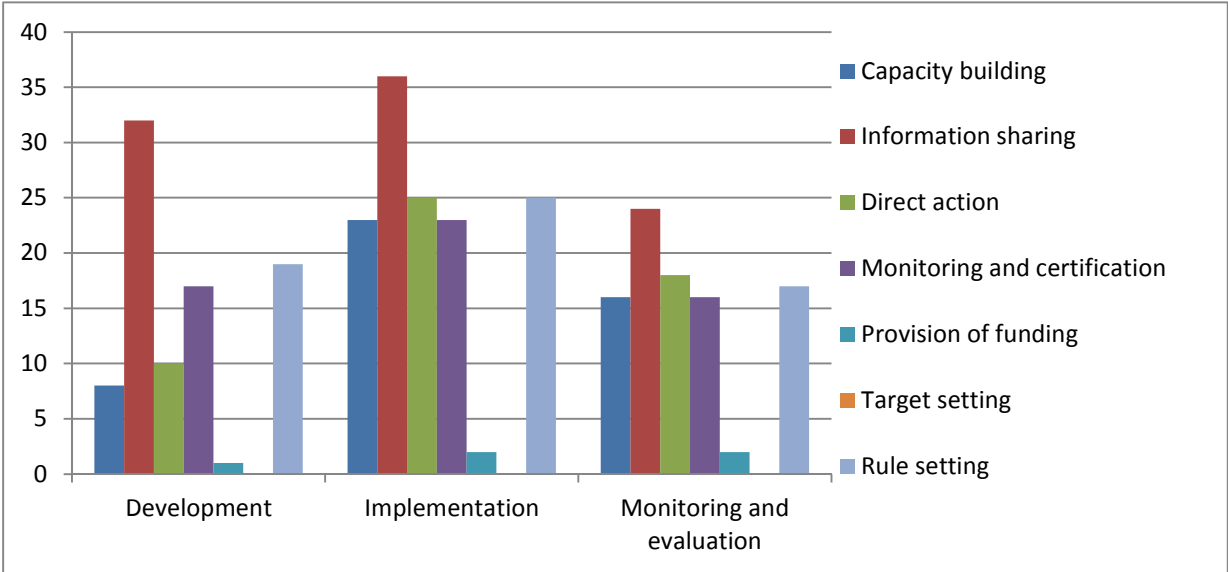


Figure 22 Governance function for each interaction for each governance process stage (cumulative)

5.5 Discussion

The interaction development of the conflict minerals governance arena shows that conflict mineral initiatives increasingly tend to interact with one another. Looking at interaction development per year, government and business association actors were initially most interactive, while NGOs and companies were more involved in interactions during later years. However, when focusing on governance process stages, no significant difference are observed in the actor involvement in interaction. NGOs and companies are involved slightly more in the implementation and monitoring

and evaluation stage, since they are the most relevant actors for the implementation of conflict minerals regulatory standards.

Throughout the years and governance process stages, the nature of interaction is mostly cooperative and much less of a competitive nature. It seems that conflict mineral initiatives are keen on mutual reinforcement of each other's activities through interaction. Moreover, there is a high degree of cooptation of other regulatory standards in the years of 2011 and 2012. These observations can be explained by the introduction of the OECD Due Diligence Guidelines and the Section 1502 provisions in 2011 and 2012, respectively. Most conflict mineral initiatives have participated in developing these standards and have coopted them as frame of reference in their own regulatory standards.

In terms of issue focus, most initiatives interact about societal and economic issues. It was already observed in the institutional characteristics development that almost all initiatives focus on both societal and economic sustainability issues. The same is reflected in interaction with other initiatives. With regards to technical supply chain issues, the audit focus began to develop later. It could be argued that the significant increase in audit-focused interactions in 2011 relates to release of the OECD Due Diligence Guidelines, which demand audit procedures. In addition, audits are relatively more often the subject of interaction in the monitoring and evaluation governance stage. As an audit is mostly performed as a control check, initiatives are more inclined to interact about audit issues when they are fully operational and need to start developing control procedures for their activities.

With regards to governance functions, information sharing is the main incentive for interaction. However, other governance functions increasingly become the subject of interaction relative to information sharing during later years, such as rule setting and monitoring and certification. These observations could suggest that initiatives increasingly interact about their regulatory standards in an attempt to optimize conflict minerals governance. In addition, information sharing is relatively more important during interactions in the developmental stage. It has been suggested that in-region governance functions, such as capacity building, direct action, and monitoring and certification are more observed in the implementation stage. The development stage therefore seems to revolve more around gathering information from other initiatives in order to avoid pitfalls in the organization and rule setting of the initiative. Interaction about governance activities in the Great Lakes Region becomes more important when an initiative starts to carry out its conflict minerals programme.

## 6. Role of interaction in development of institutional characteristics

Considering the underdeveloped transnational governance interaction theory, it is dangerous to draw one-on-one causal connections between the observed interaction among initiatives and the development of their institutional characteristics. On the other hand, correlations between patterns in interaction development and institutional characteristics can be identified on the basis of the data described in the previous sections. This information is further supplemented with thick, contextual data, stemming from reports, information on the websites of initiatives, and several interviews, which help to provide a more detailed background context to the observed patterns. Subsequently, several hypotheses can be composed on the basis of a comparison of patterns, which state several potential causal relations between about the influence of interaction on institutional characteristics. In sum, the aim of this section is to seek overlapping patterns of development and to draw up several hypotheses on the effects of interaction on the institutional structures of the conflict mineral initiatives.

### 6.1. Comparing patterns in interaction and institutional characteristics

Starting with actor characteristics, there seems to be a tendency in both interaction and characteristics development to a more equal involvement of different actor groups. Not only has conflict minerals governance seen more actor diversification during its development, but a wider variety of actors is involved in interaction. Especially NGOs, community-based organizations, and companies are more involved during later years. NGOs and community-based organizations are important actors in the upstream supply chain, assisting in capacity and network building. Their role is therefore invaluable to numerous conflict mineral initiatives. In turn, companies are more important in the downstream supply chain. Their involvement was mostly instigated by the development of the OECD guidelines and Section 1502, putting the burden of sourcing responsibility on this actor group. However, it could be questioned whether interaction itself was the main motive for the assimilation of these actor groups. One interviewed initiative indicated that NGOs and their peers are involved to gain credibility for conflict mineral initiatives. In addition, as companies are the pre-eminent group that sources conflict minerals, it can be argued that companies play a crucial role in solving the conflict minerals issue. It seems that the development towards more equal involvement of actor groups is mostly born out of necessity, rather than out of interaction motives *per se*.

With regards to content characteristics, interaction is not a significant factor in altering the issue focus. Generally, conflict mineral initiatives stick to the issue foci they set for themselves at the start of their development. Although there are two initiatives focusing on environmental aspects of conflict mineral mining, they do not seem to gain more support for environmental considerations through interaction with other initiatives. The conflict minerals issue remains framed in a social and economic perspective. The technical issue focus graphs, however, show a markedly different story. The risk management and audit issues gained much attention, both in interaction and institutional characteristics development. The role of the OECD and the US Securities and Exchange Commission (SEC) initiatives are vital here. Their interaction with other initiatives led to the cooptation of OECD guidelines and Section 1502 standards in a majority of conflict mineral initiatives, which also accounts for the increase in cooptation interaction in 2011. Subsequently, initiatives started to interact with one another to discuss best practices, explaining the relatively larger share of risk



management and audit foci in interaction during the implementation and the monitoring and evaluation stages.

Furthermore, interaction does seem to influence several other content characteristics as well. To start with, the conflict mineral focus development shows a remarkable rise towards the attention for gold. Secondly, regarding the supply chain focus, there is a clear rise in initiatives focusing their activities on the entire supply chain. At the same time, the operational focus graph shows a remarkable increase in initiatives with either an international or a transnational focus, outcompeting initiatives with any other focus. Although the interaction numbers alone are not sufficient in explaining what part interaction has played in the content characteristics development, the supplementary thick data illuminates what might have happened here.

First of all, the interaction data show high increases of interaction of a coordinative nature in 2011. This can partly be explained by the efforts of the OECD and the US Securities and Exchange Commission (SEC). The OECD made a deliberate effort to involve the gold industry more by setting up a working group to develop a gold supplement intended for the OECD guidelines in 2011. Previously, initiatives from other sectors took the initiative to focus on gold. However, the OECD managed to draw business associations from the gold sector in the conflict minerals governance arena, such as the Dubai Multi Commodities Centre (DMCC), London Bullion Market Association (LBMA), the World Gold Council (WGC). It could be argued that these working group meetings would eventually result in the cross-recognition of gold audit standards among the Conflict-Free Smelter (CFS), Responsible Jewellery Council (RJC) and World Gold Council (WGC) initiatives. Secondly, the rise of coordination and cooptation interactions in 2011 can be explained by the emergence of initiatives with an entire supply chain focus, thanks to the closed-pipe supply chain initiatives of Solutions for Hope (SfH) and Conflict-Free Tin Initiative (CFTI). The closed-pipe supply chain initiative require high degrees of coordination among its different counterparts throughout the supply chains and incorporates many other initiatives' standards into its own institutional structure. Thirdly, the great number of initiatives with an international or transnational focus is, again, a result of the focus of the OECD guidelines and Section 1502 on performing due diligence on minerals from the Great Lakes Region, forcing companies to establish contacts with suppliers that are spread around the globe. Initiatives coopting these metastandards are therefore automatically transnational in their nature. As the interaction graphs show, there has been a lot interaction of a cooptive nature in 2011, when the OECD guidelines were adopted.

In terms of governance characteristics, interaction seemingly plays a significant role in changing the institutional characteristics of initiatives throughout the years. In general, the governance modes of each individual initiative do not change from year to year and are consequently not significantly influenced by interaction. However, the type of governance mode of newly initiated initiatives does change with each year. Admittedly, the centralized and self-governance modes still prevail, but the number of interactive governance mode initiatives is slightly increasing. With so many existing centralized governance and self-governance initiatives, it can be argued that the observed interactive governance initiatives are a direct result of interactions between centralized and self-governance initiatives. The interactive governance initiative Public-Private Alliance for Responsible Minerals Trade (PPA), for instance, can count the *Bundesanstalt für Geowissenschaften und Rohstoffe* (BGR) and International Conference of the Great Lakes Region (ICGLR) initiatives, but also the Conflict-Free Smelter (CFS) protocol, International Tin Research Institute (ITRI), and World Gold Council (WGC) initiatives among its members. Furthermore, governmental actors appear to be the initiator of interactive initiatives. The Public-Private Alliance for Responsible Minerals Trade

(PPA), was a project of the US government, as a spin-off of the Section 1502 legislative development, while the Conflict-Free Tin Initiative (CFTI) was initiated by the Dutch Ministry of Foreign Affairs. The OECD, bringing together many states, decided to aim for a multi-stakeholder approach in the earliest stages of its guidelines development. Again, coordination and cooptation interaction characters seem to be necessary conditions to foster these developments.

Regarding governance instruments, the consultation procedures during the development of the OECD guidelines and Section 1502 do seem to have motivated several companies and business associations to set up their own voluntary initiatives in order to prepare themselves for these metastandards. Voluntary instruments are, in addition, often the subject of interaction when initiatives cross-recognize each other's standards or incorporate voluntary standards into their own regulatory standards. It could therefore be argued that interaction helps to spread governance instruments across different initiatives, also leading to more harmonization of standards and approaches of the initiatives.

Lastly, in the context of governance functions, interactions are most important in fostering information exchange between initiatives. All the interviewed initiatives indicated the importance of exchange of experiences and approaches in coordinating, harmonizing, and promulgating conflict minerals governance standards. By doing so, initiatives are also more inclined to share their activities and approaches with the outside world through websites and reports, resulting in more transparency. Due to open and interactive knowledge exchange, the initiatives do not need to 'hide' their progress and experiences for potential competitors. Another governance function that has benefitted from increased interaction is monitoring and certification. The increased monitoring and certification interactions are reflected in the institutional structures, where increasingly more use is made of monitoring and certification methods. Initiatives also make a lot of use of conditional rule referencing, where they recognize the standard of another initiative as one of their own. Especially in the field of monitoring and certification, several upstream active initiatives have drafted standards for monitoring and certifying conflict minerals along the supply chain. The certification documents are later used by downstream actors to show that they have undertaken due diligence in their sourcing practices. In addition, rule setting is a third important governance function that is influenced by interaction, especially by the OECD guidelines and US Securities and Exchange Commission (SEC) consultation processes.

By now, it should be clear that interaction significantly alters insitutional characteristics of conflict mineral initiatives. The OECD guidelines and Section 1502 have influenced the way in which initiatives have formulated due diligence. Similarly, cross-recognition of standards have made compliance with multiple standards possible. Furthermore, closed-pipe supply chain initiatives combine several standards in a single initiative to create a new standard in the form of an entirely conflict-free supply chain. Lastly, the in-region governance functions of capacity building and direct action are also relatively often a topic of interaction with other initiatives, in which there is discussion about the most effective approaches and creation of a more secure and less corruptive mining environment.

## **6.2. Explaining patterns in interactions and institutional characteristics**

The conflict minerals governance arena presents a case where mostly the positive consequences of regime complexity are manifested. First, interaction in the conflict minerals governance arena promotes to a great extent innovation, experimentation, adaptability over time, and flexibility across issues (Keohane & Victor, 2011; Sabel & Zeitlin, 2008; Overdevest & Zeitlin, 2012). Just like Alter and

Meunier (2009) have argued, the regime complexity situation in the conflict minerals governance arena has resulted in an increase in the number of international venues where the conflict mineral initiatives meet. These venues, where different initiatives exchange knowledge and experience, help to identify gaps and overlap in current conflict minerals governance. In several cases new initiatives evolve out of these gaps. Several conflict mineral initiatives focusing on gold are a prime of example of how policy gaps can be filled up by initiating new initiatives. These gold initiatives were a result of participation of gold business associations in the OECD guidelines development. Experimentation is also an observed mechanism to identify and fill gaps in conflict minerals governance. The Solutions for Hope (SfH) initiative, for example, was set up to test the closed-pipe supply chain concept, identify its shortcomings, and solve potential issues in joint coordination with other conflict mineral initiatives. Overlap in conflict minerals governance, on the other hand, is opposed by adopting the same reference works provided by the OECD Guidelines and the Dodd-Frank Act. In addition, cross-recognition of standards helps to further reduce the regulatory burden for companies and their suppliers. In this context, competition between conflict mineral initiatives does not appear to be a necessary interaction characteristic to arrive at further rule convergence, rule innovation, and standards acceptance (Meidinger, 2008; Smith & Fischlein, 2010). Despite the low occurrence of competitive interactions in the conflict minerals governance arena, there is still a tendency to harmonize the governance standards applied in the different conflict minerals governance initiatives.

As Abbott (2012) also observes in the climate change arena, interaction has led to the emergence of clubs of like-minded companies, governments, and NGOs who show a willingness to raise the bar and set an example for other initiatives. Examples of this logic are abound in the case of conflict minerals governance. The gold initiatives were part of a working group for gold in the OECD guidelines development. The closed-pipe supply chain initiative of Conflict-Free Tin Initiative (CFTI) based its regulatory standards on the Solutions for Hope (SfH) initiative and both their websites are hosted by NGO Resolve. Furthermore, the Public-Private Alliance for Responsible Minerals Trade (PPA) could be defined as club in itself, which can count several conflict mineral initiatives among its members. The Electronic Industry Citizenship Coalition (EICC)-Global e-Sustainability Initiative (GeSI) workshops are a similar club where initiatives can meet and talk about the latest development in conflict minerals governance. As several transnational governance authors have also observed, regime complexity has led to a heightened role for nonstate actors (Alter & Meunier, 2009; Raustalia & Victor, 2004). Different from what these authors propose, however, the role of nonstate actors is not necessarily circumscribed to assisting in state policies. Instead, there is also much interaction between nonstate actors taking place that helps to reduce regime complexity in the conflict minerals governance arena.

When looking at how interactions are steered by different actors, several conditions can be observed that further help to reduce the negative consequences of regime complexity. The research shows that orchestration is an important element that fosters more harmonization and that sets out paths for further development of conflict minerals governance (Abbott & Snidal, 2010). At the government and international organization level, the OECD has typically played the role of orchestrator. The OECD convened actors from all spheres and society and drew up a framework which was accepted and used by other initiatives to develop their own conflict minerals governance around. In a similar fashion, the US Securities and Exchange Commission (SEC) consulted a broad range of actors and used their input to shape Section 1502 and develop implementation guidance. Both OECD and US Securities and Exchange Commission (SEC) initiatives have been instrumental in defining a common set of governance tools for the different conflict mineral initiatives.

In addition, the OECD intervention in the conflict minerals governance arena presents a case of regulatory collaboration, where an international organization directly engages with private actors (Abbott & Snidal, 2012). However, where Abbott and Snidal (2012) point to the limited impact of regulatory collaboration on advancing more stringent regulation, the OECD guidelines seem to have triggered more regulatory initiatives in the field of conflict minerals governance and supported existing conflict mineral initiative standards. It seems that the direct collaboration with private actors has contributed to a general acceptance of the OECD guidelines among business associations and companies, since their views were taken into account in the final guidelines. In addition, their input provided insight in what could be realistically expected of companies sourcing conflict minerals, making the final guidelines better applicable.

Next to OECD orchestration, conflict minerals governance interaction shows many instances of private orchestration, where private actors perform metagovernance without state intervention (Glasbergen, 2011). As Glasbergen (2011) has argued, these private orchestration efforts are at least as effective as public or state orchestration efforts in advancing conflict minerals governance. Examples of private orchestration efforts have already been mentioned throughout previous paragraphs. They include, for instance, the cross-recognition of governance standards between different private conflict mineral initiatives and produce further harmonization of conflict minerals governance standards. At the same time, private orchestration efforts fulfil the conditions that should make them successful (Glasbergen, 2011). They involve the most important stakeholders from civil society and business, and similarly involve northern and southern actors. The private initiatives also show a great degree of interaction within the conflict minerals governance network and involve many research organizations for the development of their regulatory standards.

### **6.3. Discussion**

In the theory section in Chapter 2 it was indicated that several important questions remain open in the current literature on transnational governance interaction. First, it is still unclear what the usefulness of interaction is for transnational governance and how they shape the institutional characteristics of the initiatives. Second, it remains relatively unclear what favourable conditions for transnational governance interaction are. Lastly, more successful trajectories need to be identified in order to establish when interaction leads to positive outcomes. This paragraph aims to address some initial hypotheses that could help to answer these questions based on the findings from the empirical and theoretical notions on conflict minerals governance.

Regarding the use of interactions, it was shown that interaction between conflict mineral initiatives leads to more acceptance of its policies among its stakeholders. The OECD involved conflict mineral stakeholders and initiatives in an early stage of its guidelines development. By letting these parties participate in the drafting process, the actors were able to modify regulatory standards, at least partly, to their situation and capabilities. The stakeholder involvement did not only lead to more legitimization of the OECD guidance rules, but also resulted in more acceptance among participants since they were able to realize their input in the guidelines. In a similar fashion, NGOs are involved in conflict mineral initiatives to create more credibility for their activities and to create mutual understanding for challenges and problems the initiatives have to face in order to tackle the conflict minerals issue.

The usefulness of interaction for transnational governance is also observed in the conflict minerals rule setting. Initiatives often enter into an interaction with another initiative to create more harmonization between their standards, if not to streamline their rules. Cross-referencing of each

other's standards is a preferred mechanism to solve duplication of rules and to take away some of the regulatory burden for companies and suppliers dealing with conflict minerals. In addition, interaction helps to identify regulatory gaps in conflict mineral rule-setting. It can happen that these gaps are filled by initiating a new initiative, simply to experiment with a possible solution for the regulatory gap. The Solutions for Hope (SfH) initiative was for instance initiated to test whether it was possible to set up a complete closed-pipe supply chain for conflict-free tantalum from Congo by using the regulatory standards of current initiatives. Such an 'experiment' can also help to identify further potential gaps in conflict mineral regulations. Furthermore, interaction has helped to take several business associations for gold on board of the OECD guidelines development, eventually resulting in several conflict mineral initiatives that focus on gold in particular. In the end, interaction has led to tailored approaches for each metal sector and for each stage of the minerals supply chains.

Turning towards favourable conditions for transnational governance interaction, several factors seem of importance. First of all, there is a need for some form of international pressure on actors in global supply chains in order to invoke desired change. On the one hand, NGOs have played an influential role in making the conflict minerals issue visible to the outside world and to campaign against companies that use conflict minerals. In addition, the 'shadow of hierarchy' (Scharpf, 1991) is a useful weapon for governmental actors in this regard. The threat of introducing legislation that aims to curb conflict minerals sourcing will already result into changes in the sourcing policies of companies, who want to anticipate legislation in order to have a competitive advantage. Section 1502 of the Dodd-Frank Act has performed a crucial role in this regard. This law has spurred the initiation of new conflict mineral initiatives and has supported existing initiatives by backing their efforts. The OECD guidelines have had a similar though weaker effect due to their voluntary nature. Now that the OECD and US Securities and Exchange Commission (SEC) recognize each other's regulation, many companies already anticipate possible European Union legislation based on OECD guidelines.

Secondly, uncertainty and little knowledge about the conflict minerals issue seems to have fostered further interaction. In global supply chains, uncertainty is to a large extent influenced by weak contacts between producers in the downstream supply chain and suppliers in the upstream supply chain. In order to address the conflict minerals issue, producers and suppliers need to contact each other and jointly agree on appropriate measures. Conflict mineral initiatives might help to bring the required actors together and reduce uncertainties. Furthermore, limited knowledge about the actual situation in the conflict mines and surrounding regions required cooperation with local actors, NGOs, and research organizations. Information exchange between different conflict mineral initiatives has been crucial to spread the limited available knowledge on conflict mining. In addition, every conflict mineral initiative itself is a test case. None of the involved companies has ever performed due diligence on conflict minerals or set up its own closed-pipe supply chain before. The experiences of these companies are oftentimes the subject of interactions, mostly for identifying regulatory gaps or to suggest different solutions.

Thirdly, companies need platforms to exchange and discuss their experiences with conflict minerals regulation and programmes. These platforms could be defined as institutional sites of interaction (Eberlein *et al.*, forthcoming) and refer to forums, such as the OECD guidelines meetings, US Securities and Exchange Commission (SEC) consultation rounds, the Electronic Industry Citizenship Coalition (EICC)-Global e-Sustainability Initiative (GeSI) workshops or conflict mineral initiative meetings. The platforms provide for an aggregation of best practices and a promulgation of relevant information. In addition, forums foster contacts between different conflict mineral initiatives,

sometimes resulting in the initiation of new initiatives, such as in the case of the Conflict-Free Tin Initiative (CFTI). In addition, platforms provide an opportunity to involve and interact with more relevant stakeholders, leading to more inclusiveness of conflict minerals governance. Moreover, platforms help to channel the different views, experiences, and opinions of different stakeholders, offering the possibility to mediate between actors and to arrive at a similar understanding of issues and their solutions. Platforms essentially help to make interaction between initiatives and their stakeholders more efficient and effective.

Fourthly, business associations seem to be important conductors of interaction by linking companies to other actor groups. Companies often do not possess the time and resources to participate in a governance process, especially in the case of small and medium enterprises. Business associations give these companies a voice and represent their perspectives in the conflict minerals governance arena. In turn, business associations are useful in disseminating information, drafting regulatory standards, and providing assistance to companies in implementing regulatory standards. They set up trainings, draft guidance documents, offer webinars, and provide a contact point for companies in case of regulatory unclarity. The existence of business associations therefore seems to be a positive factor in driving transnational governance interaction further.

Lastly, the recognition of the necessity to orchestrate conflict minerals governance has also given in to more conflict mineral initiatives interaction. Such an orchestration effort requires that several actors take up the responsibility to perform metagovernance. This helps to improve harmonization and effectiveness of transnational governance. Often international organizations and national governments take up the orchestration effort. However, the conflict minerals case shows that private actors, such as companies and business associations, are equally willing to organize metagovernance. Independent of whom organizes the orchestration effort, it generally requires more interaction between different initiatives in order to streamline their institutional characteristics, standards, regulations, and so on, thereby making conflict minerals governance more efficient. The success of orchestration efforts seems to be related to the extent to which actors have a similar understanding of what the goal of conflict minerals governance should be and what solutions might be viable to reach this particular goal. Most initiatives approach the conflict minerals issue out of a social and economic sustainability perspective. Moreover, initiatives want to solve the issue by similar means, such as due diligence measures. It could be argued that this use of similar perspectives and approaches by conflict mineral initiatives helps orchestration efforts to succeed.

The existence of favourable conditions for transnational governance interaction, as outlined above, also determines possible trajectories for successful governance outcomes. Based on the conditions mentioned before, a storyline could be developed explaining how interactions can lead to positive governance outcomes. A successful interaction trajectory for conflict minerals governance could be described as follows. First, there is a need for sufficient international pressure to put the conflict minerals issue on the agenda of governmental and private actors. As a reaction to these pressures, private actors start to set up initiatives that aim to tackle the issue. Due to their inexperience with and limited knowledge about the issue, they are forced to interact with one another. These early private sector developments are then supported by regulatory support of governments and international organizations, spurring the establishment of more initiatives and interaction. Governments, international organizations, and private sector initiatives make sure to involve all relevant stakeholders and by doing so, create support for their policies among conflict mineral stakeholders and initiatives. Venues, meetings, and forums provide opportunities for exchange among the different initiatives. In a later stage, conflict mineral initiatives start to adapt

their policies, based on results of earlier activities and interaction with other initiatives. Several initiatives orchestrate current conflict mineral regulation to reduce duplication of efforts, to harmonize different standards and by doing so, make conflict minerals governance more efficient and effective. Such a description of an interaction trajectory therefore outlines how interaction positively influences the governance arena over time. Whether interaction also empirically results in better governance performance is discussed in the next section.

## **7. Effects of interaction on conflict minerals governance performance**

In the previous section, it was argued that interaction has a significant influence on the development of institutional characteristics of conflict mineral initiatives. The aim of this section is to build upon this observation and establish whether the influence of interaction on institutional characteristics also results in a better performance of the total conflict minerals governance arena, which helps to answer the main research question. The performance of the conflict minerals governance arena is assessed in three different ways. First, it is assessed to what extent institutional characteristics of conflict mineral initiatives comply with good governance principles over the years. For this purpose, the United Nations (UN) and International Social and Environmental Accreditation and Labeling (ISEAL) good governance principles have been processed into a list of indicators that describes what institutional characteristics an initiative ought to have in order to meet a good governance principle. Conflict minerals governance performance is therefore assumed to be related to the extent to which initiatives have integrated good governance principles in their institutional characteristics. Secondly, conflict minerals governance performance is derived from the network structure of interacting initiatives. The claim behind this assessment is that network structure is a structural feature that affects the performance of the entire governance arena. A third, and last, assessment is performed by looking into conflict-free mineral production in the Great Lakes Region by conflict mineral initiatives.

### **7.1. Good governance**

In the assessment of the good governance performance of conflict mineral initiatives, three aspects are highlighted in this paragraph. First, it is assessed and explained to what extent the institutional characteristics of conflict mineral initiatives fulfil good governance requirements using a set of indicators. Secondly, it is assessed to what extent these results can be related to interaction of conflict mineral initiatives. Finally, it can be argued to what extent interaction is responsible for the performance of conflict minerals governance in terms of good governance.

Table 10 shows how often each good governance indicator is observed in the governance structure of a conflict mineral initiative for each year. Overall, a slight rise in the indicator total can be observed, starting with an average of 10 indicators in 2008 and increasing to 12,7 indicators per initiative in 2012 on a total of 23 indicator items. These numbers correspond with a 43% fulfilment of good governance indicators in 2008, rising up to 55% in 2012. The institutional characteristics of all conflict mineral initiatives therefore meet more than half of the good governance indicators on average in 2012. At the same time, there is a temporary decrease in the number of indicators that are met in 2010. The decrease could be explained by the temporary mining ban of the Congolese government, which meant that Congolese initiatives came to a halt. This drastic action is reflected in a decrease in the amount of effectiveness, efficiency and responsiveness indicators on the total number of initiatives.

A more detailed result can be provided by splitting up the results according to each good governance principle. By doing so, it can be assessed how institutional characteristics of conflict mineral initiatives develop in relation to each separate good governance principle. Table 11 shows the total amount of good governance principle indicators met by all initiatives per year. In Table 12, the results of Table 11 are then averaged for the number of indicators for each good governance



<b>Good governance principle</b>	<b>Governance characteristics indicators</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Consensus oriented + participatory	Involved actors from all three governance spheres: government, market and society	1	4	9	11	14
	Governance mode: interactive or self-governance	1	3	7	10	13
Rule of law	Objective is stated	2	5	11	17	19
	Governance instruments: mandatory instruments	1	3	5	7	7
	Governance function: target setting	0	0	0	0	0
	Governance function: rule setting	2	4	8	14	14
Effectiveness and efficiency + responsiveness	Covers all conflict minerals	1	3	7	10	11
	Covers entire supply chain	0	1	2	5	6
	Operational focus: international/transnational level	1	4	9	15	16
	Covers all issue foci	1	2	2	2	2
	Governance instruments: incentive based instruments	0	0	0	2	3
	Governance instruments: voluntary instruments	1	3	7	11	12
	Governance function: capacity building	0	3	4	8	10
	Governance function: direct action	0	4	4	7	10
	Governance function: provision of funding	0	0	0	2	3
Equity and inclusiveness	Origin of actors: North and South	2	6	12	17	18
	Involved actors: local governments and/or community-based organizations	1	3	7	9	12
	Governance instruments: negotiated instruments	0	1	1	1	1
Accountability	Issue focus: audit	1	3	8	15	18
	Governance function: monitoring and certification	0	2	3	10	16
Transparency	Issue focus: traceability/chain-of-custody	1	3	7	9	10
	Issue focus: risk management	2	6	12	18	20
	Governance function: information sharing	2	6	10	17	18
	Total	20	69	131	217	253
	Total good governance principle per initiative per year (max. 26)	10	11,5	10,9	12,1	12,7
	Total good governance principle percentage per initiative per year	43	50	47	52	55

**Table 9** Number of good governance principles found in each initiative per year.

<b>Good governance principles</b>	<b># of items</b>	<b>2008 (2 initiatives)</b>	<b>2009 (6 initiatives)</b>	<b>2010 (12 initiatives)</b>	<b>2011 (18 initiatives)</b>	<b>2012 (20 initiatives)</b>
Consensus	2	2	7	16	21	27
Rules of law	4	5	12	24	38	40
Effectiveness	9	4	20	35	62	73
Equity	3	3	10	20	27	31
Accountability	2	1	5	11	25	34
Transparency	3	5	15	29	44	48

**Table 10** Total amount of good governance principles met by all initiatives per year.

<b>Good governance principles</b>	<b># of items</b>	<b>2008 (2 initiatives)</b>	<b>2009 (6 initiatives)</b>	<b>2010 (12 initiatives)</b>	<b>2011 (18 initiatives)</b>	<b>2012 (20 initiatives)</b>
Consensus	2	1,0	1,2	1,3	1,2	1,4
Rules of law	4	2,5	2,0	2,0	2,1	2,0
Effectiveness	9	2,0	3,3	2,9	3,4	3,7
Equity	3	1,5	1,7	1,7	1,5	1,6
Accountability	2	0,5	0,8	0,9	1,4	1,7
Transparency	3	2,5	2,5	2,4	2,4	2,4

**Table 11** Average amount of items of a good governance principle met by all conflict mineral initiatives per year.

<b>Good governance principles</b>	<b># of items</b>	<b>2008 (2 initiatives)</b>	<b>2009 (6 initiatives)</b>	<b>2010 (12 initiatives)</b>	<b>2011 (18 initiatives)</b>	<b>2012 (20 initiatives)</b>
Consensus	2	50%	58%	67%	58%	68%
Rules of law	4	63%	50%	50%	53%	50%
Effectiveness	9	22%	37%	32%	38%	41%
Equity	3	50%	56%	56%	50%	52%
Accountability	2	25%	42%	46%	69%	85%
Transparency	3	83%	83%	81%	81%	80%

**Table 12** Average amount of items of a good governance principle met by all conflict mineral initiatives per year in percentages.

principle by dividing the results of Table 11 with the amount of items for each good governance principle. These results are in turn transformed in percentages in Table 13.

Based on these tables, an increase is observed in the integration of every good governance principle from 2008 to 2012, except for the principles of rule of law and transparency. The consensus and participation principle shows an increase from 50% in 2008 to 68% in 2009 with a temporary decrease of 9% in 2011. The decrease in 2011 can mostly be explained by the initiation of several new initiatives that do not involve actors from all three governance spheres. More importantly, however, is the observation that consensus and participation have been significant principles for conflict mineral initiatives. For most initiatives, there seems to have been an almost self-evident recognition that the involvement of relevant stakeholders from all three spheres was necessary to approach the conflict minerals issue. The ensuing increase in the consensus and participation principle can only partly be related to increased interaction. The interactive initiatives of the Public-Private Alliance for Responsible Minerals Trade (PPA) and the Conflict-Free Tin Initiative (CFTI) for instance emerged out of previous interactions between different initiatives. For the most part, however, there are no indications that interaction has significantly influenced consensus and

stakeholder participation.

The rule of law principle shows a decrease from 63% in 2008 to 50% in 2009 and remains steady throughout the remaining years. The decrease can mostly be attributed to a consolidation of initiatives applying mandatory governance instruments, such as legal provisions, to implement their policies. On the other hand, almost every initiative clearly states its objective on a website, and 14 out of 20 initiatives in 2012 engage in rule setting activities. None of the initiatives, however, sets a clear numerical target for their activities. These figures show that many initiatives draft certain rules or standards for their own organization and members. Though the regulations do not possess a legal status, they can be binding to actors who intend to become a member of a conflict mineral initiative. The rules and regulations then function as an entrance barrier to becoming a member of the organization behind the conflict mineral initiative. This is for instance the case with the London Bullion Market Association (LBMA) initiative where members have to incorporate due diligence guidelines for gold. However, the rule of law principle does not seem to be significantly influenced by interaction. First of all, mandatory instruments are used by national governments and international organizations. Their use is more linked to the initiating actor type, rather than to interaction itself. Second, conflict mineral initiatives seem to determine from their point of initiation what type of initiative they intend to be, whether it is a due diligence initiative or more of a certification body. Their initial objectives do not appear to change during later stages in the governance process, even when extensive interaction with other initiatives takes place.

The principle of effectiveness, efficiency, and responsiveness shows almost a doubling throughout the observed five years, from 22% in 2008 to 41% in 2012. Although the final result is the lowest percentage found for all governance principles, it still seems to be a significant achievement for the short existence of the conflict minerals governance arena. At the same time, there is a marked drop in effectiveness indicators of 5% in 2010, since many of the newly initiated initiatives in 2010 did not (initially) engage in capacity building and direct action. Looking at the values of the indicators, the rise in effectiveness can especially be explained by the broad operational scope of many initiatives, who operate mostly on an international or transnational basis. Secondly, more than half of the initiatives take all conflict minerals into account in their activities. Thirdly, about half of the initiatives operate within the Great Lakes Region and are directly or indirectly engaged in capacity building or direct action. Lastly, the extensive use of voluntary instruments ensures that companies are engaged in the issue and are willing to tackle the conflict minerals issue, increasing the efficiency of conflict mineral initiatives. To some extent, interaction has fostered these particular principles. In the data collection, it was observed that the governance functions of capacity building and direct action are often the subject of interaction, in case of which initiatives discuss best practices. Voluntary instruments are often part of an interaction when conflict mineral initiatives cross-recognize certain governance standards. This creates a spill-over effect of different standards and helps to avoid duplication. Furthermore, the ubiquitous international and transnational focus of conflict mineral initiatives has been boosted by the OECD guidelines and Section 1502, forcing downstream manufacturers to contact their mineral suppliers and conflict mineral initiatives. Many initiatives assist in bringing companies and their suppliers together. In turn, it is unclear whether interaction motivated conflict mineral initiatives to focus on every conflict mineral. On the contrary, it rather seems to be the case that interaction has resulted in a more differentiated approach, where initiatives specialize on one conflict mineral. This goes, for instance, for the closed-pipe supply chain initiatives, who have mostly been initiated as a result of previous interaction between other conflict mineral initiatives. In similar vein, separate gold initiatives are set up out of a recognition that the

gold market structure is markedly different than the 3Ts markets. While a broad focus on all conflict minerals might therefore be more efficient, it could be questioned whether such an approach is also more effective. A focus on one mineral only could allow for a more tailored and profound approach towards making conflict mineral supply chains conflict-free.

The equity and inclusiveness principle remains relatively steady, only increasing from 50% in 2008 to 52% in 2012. Only in 2009 and 2010 a slightly higher percentage of 56% for both years is visible. The decrease in 2011 can be explained by the initiation of initiatives that did not involve community-based organizations, nor local governments, in their institutional characteristics. The origin of actors scores high, because the character of the global conflict mineral supply chain almost automatically implies that both northern and southern actors are members of conflict mineral initiatives. Involving both actor groups is seen as a necessity to solve the conflict minerals issue. The results can therefore hardly be related to interaction. There is a higher involvement of community-based organizations in the later years of conflict minerals governance development. However, this observation seems to be more related to the recognition that more credibility is gained by involving community-based organizations, rather than a result of interaction with other initiatives *per se*.

The principle of accountability shows the sharpest rise of all good governance principles, increasing from 25% in 2008 to 85% in 2012. This remarkable increase does not appear to be a coincidence. For the most part, it can be related to interaction. The rise of audit procedures and monitoring and certification tools in institutional characteristics of conflict mineral initiatives seems to be a result of the OECD guidelines demands and the Dodd-Frank Section 1502 provisions. Both initiatives demand the use of audit procedures and monitoring activities. As many other initiatives have incorporated the OECD and Section 1502 provisions, it explains why accountability shows such a sharp increase. In a similar vein, cross-recognition of certain monitoring and certification standards or audit procedures has helped to spread these practices to other initiatives throughout the years.

Lastly, transparency does show a decrease, but only minimally. With a decrease from 83% in 2008 to 80% in 2012, transparency shows a relatively steady trend. It is remarkable that transparency scores relatively high in the institutional characteristics of conflict mineral initiatives. The core incentive for most initiatives is to create more transparency in the conflict mineral supply chain. In this context, it is not a coincidence that all conflict mineral initiatives focus on the issue of risk management during each year. As a consequence, they are also more transparent in their own activities and results. In 2012, 90% of the initiatives provide information about their activities and their development to the public. However, the question is to what extent these results can be related to interaction between different conflict mineral initiatives. Although transparency has been an important foundation principle for many initiatives from the start, it could be argued that interaction has helped to maintain a strong focus on transparency. The strong emphasis on risk management in the OECD guidelines and Section 1502 have again been instrumental in this regard. These initiatives set a framework standard for other conflict mineral initiatives, in which transparency is a guiding principle. Both OECD and US Securities and Exchange Commission (SEC) initiatives have also extensively involved other conflict mineral initiatives in their development.

Table 14 provides another detailed overview of the good governance performance, indicating the results for each initiative itself. It turns out that the majority of initiatives shows an increase in good governance performance during their development. Initiatives that do not show an increase either exist for only one year or keep the same level of good governance performance during their development. The best performing initiatives, in terms of the good governance indicators, consist of

Good gov. principles per initiative	Year	Consensus oriented + participatory (max. 2)	Rule of law (max. 4)	Effectiveness and efficiency + responsiveness (max. 9)	Equity and inclusiveness (max. 3)	Accountability (max. 2)	Transparency (max. 3)	Total (N)	Total of indicators (%)
AIAG	2010	1	1	4	0	0	2	8	35
	2011	1	1	4	0	0	2	8	35
	2012	1	1	4	0	1	2	9	39
BGR	2008	0	3	2	2	1	3	11	48
	2009	1	3	4	2	2	3	15	65
	2010	1	3	5	2	2	3	16	70
	2011	1	3	5	2	2	3	16	70
	2012	1	3	5	2	2	3	16	70
CA	2011	1	3	2	0	2	1	9	39
	2012	1	3	2	0	2	1	9	39
CFS EAF	2012	1	1	5	0	2	1	10	43
CFS	2009	2	2	2	1	0	2	9	39
	2010	2	2	2	1	1	2	10	43
	2011	2	2	3	1	2	2	12	52
	2012	2	2	3	1	2	2	12	52
CFTI	2011	1	1	3	2	1	3	11	48
	2012	2	1	5	3	2	3	16	70
CGI	2009	1	3	4	2	2	3	15	65
	2010	1	3	2	2	1	2	11	48
	2011	1	3	4	2	2	3	15	65
	2012	1	3	4	2	2	3	15	65
DMCC	2011	1	3	1	1	1	2	9	39
	2012	1	3	1	1	2	2	10	43
EU ITF	2009	0	2	1	1	0	3	7	30
	2010	0	2	1	1	0	3	7	30
	2011	0	2	1	1	0	3	7	30
	2012	0	2	1	1	0	3	7	30
ICGLR	2010	1	3	4	2	1	3	14	61
	2011	1	3	4	2	2	3	15	65
	2012	1	3	4	2	2	3	15	65
ITRI	2008	2	2	2	1	0	2	9	39
	2009	2	2	3	2	0	2	11	48
	2010	2	2	4	2	2	3	15	65
	2011	2	2	4	2	2	3	15	65
	2012	2	2	4	2	2	3	15	65
KEMET	2010	2	0	3	2	0	3	10	43
	2011	2	1	5	2	2	3	15	65
	2012	2	1	5	2	2	3	15	65
LBMA	2011	1	2	2	1	2	2	10	43
	2012	1	2	2	2	2	2	11	48

Good gov. principles per initiative	Year	Consensus oriented + participatory (max. 2)	Rule of law (max. 4)	Effectiveness and efficiency + responsiveness (max. 9)	Equity and inclusiveness (max. 3)	Accountability (max. 2)	Transparency (max. 3)	Total (N)	Total of indicators (%)
OECD	2009	2	1	3	2	1	2	11	48
	2010	2	2	4	3	1	2	14	61
	2011	2	2	4	3	1	2	14	61
	2012	2	2	4	3	1	2	14	61
PAC	2012	2	1	4	2	2	3	14	61
PPA	2011	2	1	8	2	1	3	17	74
	2012	2	1	8	2	1	3	17	74
RJC	2010	1	2	2	1	1	2	9	39
	2011	1	2	2	1	1	2	9	39
	2012	1	2	2	1	2	2	10	43
SFH	2011	2	2	2	2	2	2	12	52
	2012	2	2	2	2	2	2	12	52
US SEC	2010	1	3	3	2	1	3	13	57
	2011	1	3	3	2	1	3	13	57
	2012	1	3	3	2	1	3	13	57
WGC	2010	2	1	1	1	1	2	8	35
	2011	2	2	2	1	1	2	10	43
	2012	2	2	2	2	1	2	11	48

**Table 13** Number of good governance principles met, indicated for each initiative and each year of its development.

the Public-Private Alliance for Responsible Mineral Trade (PPA) initiative, the Conflict-Free Tin Initiative (CFTI), and the *Bundesanstalt für Geowissenschaften und Rohstoffe* (BGR) initiative. The Public-Private Alliance for Responsible Minerals Trade (PPA) and Conflict-Free Tin Initiative (CFTI) initiatives have the interactive governance mode in common, which means that many different stakeholders from all three governance spheres are involved. In addition, the multiple stakeholders are equally powerful in the decision making process of the initiatives. Another commonality is the strong involvement of other initiatives in the governance processes of both initiatives, in case of the Public-Private Alliance for Responsible Minerals Trade (PPA) as members, while in the Conflict-Free Tin Initiative (CFTI) in its operational activities. The *Bundesanstalt für Geowissenschaften und Rohstoffe* (BGR) initiative has a different character compared to these two initiatives with its centralized governance mode. Its higher score can be explained by its additional focus on environmental issues in its institutional characteristics.

In general, however, interaction seems to positively influence the good governance performance of conflict mineral initiatives. Indications for this observation are the several initiatives that show a low good governance performance and hardly interact with other initiatives. These include, for instance, the Canadian Conflict Mineral Bill (CA) initiative (39%) and the Conflict-Free Smelter Early Adopters Fund (CFS EAF) (43%), which both interact with only one other initiative. Furthermore, the World Gold Council (WGC) initiative which only started to interact with other initiatives in 2011, shows an increase from 35% in 2010 to 48% in 2011 in its good governance performance. In turn, the high scoring initiatives, which score 60% or more, are also among the most interactive ones. Apart from the three initiatives mentioned before, these include the International Conference on the Great Lakes Region (ICGLR) initiative, the International Tin Research Institute (ITRI) initiative, the Kemet (KEMET) initiative, the Organisation for Economic Co-operation and

Development (OECD) initiative, and the Partnership Africa Canada (PAC) initiative.

In sum, interaction seems to have a significant influence on the good governance performance of the conflict minerals governance arena. The influence is most clearly visible in the accountability principle and to a lesser extent in the effectiveness, efficiency and responsiveness principle, and the transparency principle. However, interaction does not significantly influence the consensus and participation principle, the rule of law principle, and the equity and inclusiveness principle. In addition, good governance performance data on the initiatives themselves show that more interactive initiatives also show increases in their good governance performance. However, it should be noted that the selected good governance indicators, based on the institutional characteristics of the initiatives, do not always entirely correspond with the good governance principles, which slightly clouds the results. In addition, a statistical relationship between interaction and institutional characteristics cannot be established as there are too many variables at play and since the total number of initiatives is too low. Based on absolute numbers, however, a correlation between more interactive initiatives and a better good governance performance can be observed.

## 7.2. Network structure

According to Sandström and Rova (2010), network structure can be related to the performance of a network. It is suggested by these authors that network closure, describing how well-connected a network is, positively influences the extent to which collective action can be achieved and the process of prioritizing can be enhanced (Sandström & Rova, 2010: 2). In addition, a closed structure fosters the ability of conflict resolution. All these influences taken together lower the transaction costs associated with interaction (*Ibid.*). Lower levels of network structure, however, result in a less smooth governance process in which it is harder to deal efficiently with collective action problems (*Ibid.*). Higher levels of network heterogeneity, describing the diversity of resources in a network, lead to better resource mobilisation, labour division, increased specialization, risk sharing, and better knowledge (*Ibid.*). In turn, more homogenous networks are likely to suffer from resource scarcity and are less innovative. At the same time, however, they might be more favourable than heterogeneous networks when it comes to efficient collaboration and a process of setting, changing, and enforcing rules (*Ibid.*). In general, however, it is assumed that networks with a high network closure, including high levels of density and centralization, plus high network heterogeneity, including high actor diversity and cross-boundary interaction, result in better performing networks. There are no context independent standards for the interpretation of social network measures. Statements about closure and heterogeneity should therefore always be grounded in a description of the empirical context. In

Network structure	2008	2009	2010	2011	2012
Size	2	6	12	18	20
New	2	4	6	6	2
Density degree (%)	0	47%	45%	49%	62%
Centralization degree (%)	0	16%	30%	42%	24%
Diversity of initiatives	4	5	6	8	8
Cross-boundary interaction (%)	0	71%	80%	78%	76%

**Table 14** Network structure data for networks of interacting conflict mineral initiatives for each year.

addition, close attention should be paid to group forming in the network structures to identify sub groups of actors that could inflate certain network measurement disproportionately (Sandström & Rova, 2010).

For the conflict minerals governance arena, the network measures are described in Table 15. Density levels remain relatively stable until 2011, showing a sudden jump of 13% in 2012. Density indicates how many connections there are in a network in relation to the maximum possible number of connections (Sandström & Rova, 2010). In 2012, 62% of all the possible connections in the conflict mineral network are thus present and many more links were established between the different conflict mineral initiatives. A very significant rise of 13% after 2011, even though only two initiatives were newly initiated in 2012. At the same time, it seems that several initiatives formed sub groups within the network that interacted very intensively with each other in comparison to other initiatives throughout the investigated years.

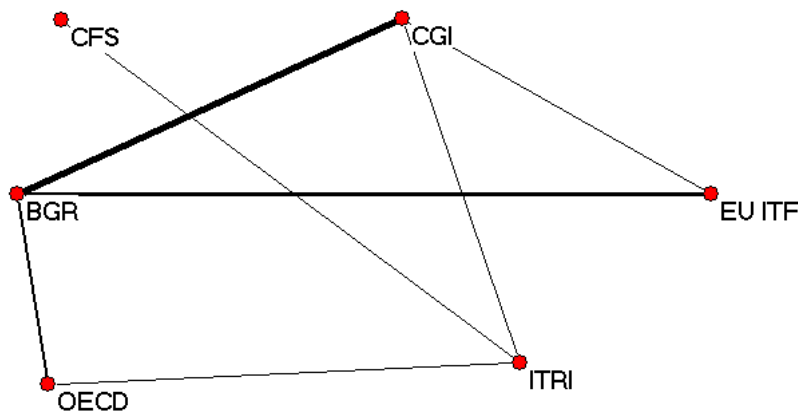


Figure 23 Conflict mineral initiatives interaction in 2009.

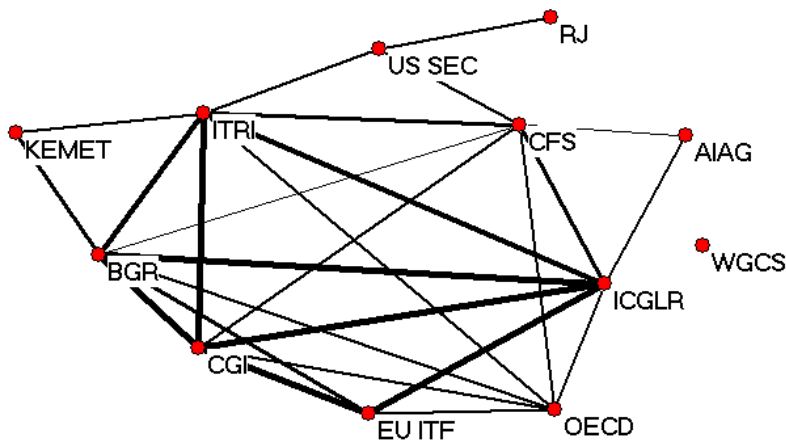


Figure 24 Conflict mineral initiatives interaction in 2010.



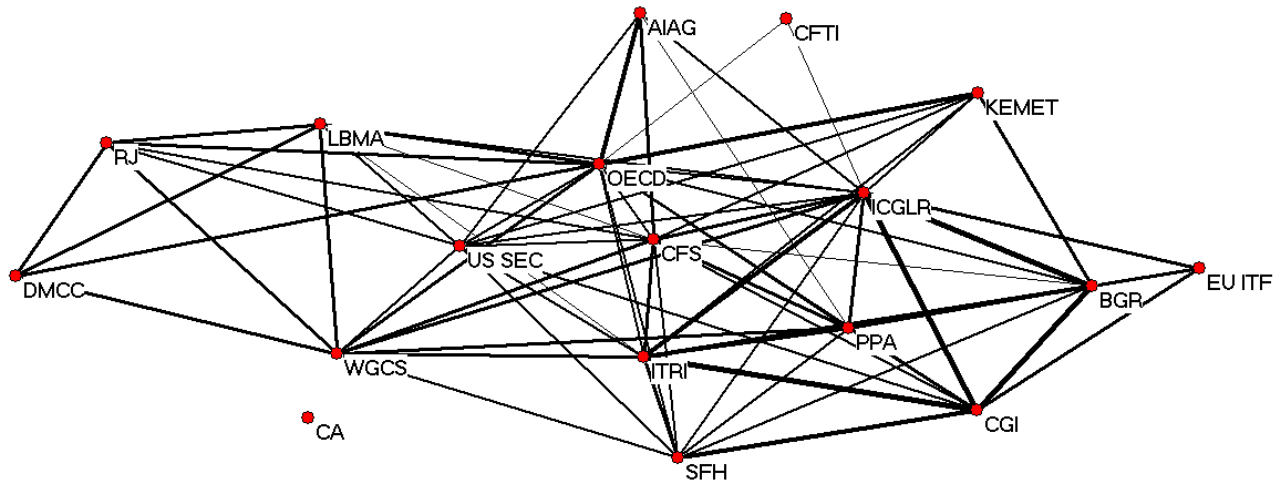


Figure 25 Conflict mineral initiatives interaction in 2011.

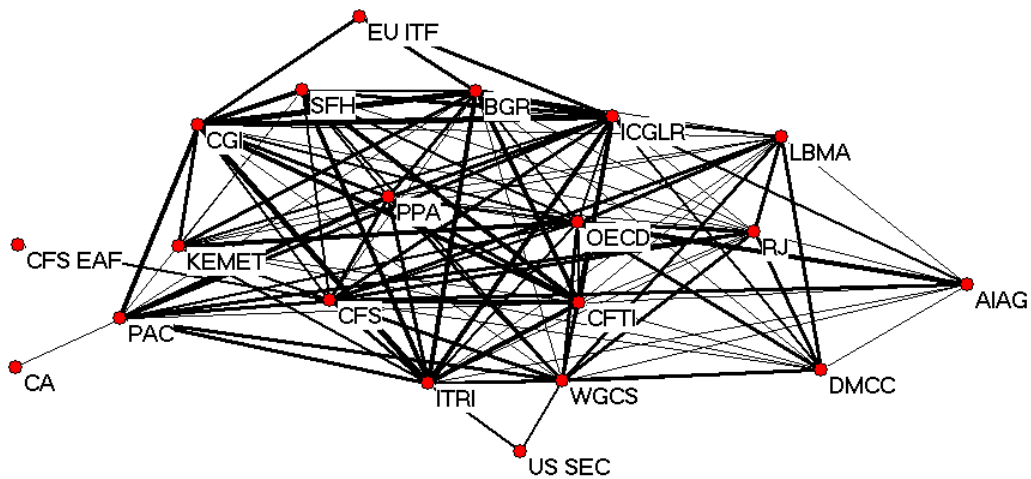


Figure 26 Conflict mineral initiatives interaction in 2012.

The existence of sub groups can be further explored in the visualized networks of the conflict minerals governance arena, shown in Figure 22-25. The boldness of the lines connecting the initiatives provides an indication for the quality of interaction and is based on the amount of governance functions that are part of the interaction. More than any other institutional characteristic, governance functions show in what ways conflict mineral initiatives interact, whether it is only about information sharing or more intense interaction such as interactions about monitoring and certification. The more governance functions are part of an interaction, the more intense the interaction between the initiatives is assumed to be. Eventually, this should also be reflected in the institutional characteristics of the initiatives and ultimately in their performance.

Taking the visualized networks and the network performance data into account, several sub sets can be identified. First, the small conflict minerals governance arena in 2009 shows several strong ties between the *Bundesanstalt für Geowissenschaften und Rohstoffe* (BGR) initiative, the Congolese Government Initiatives (CGI), and the European Union International Task Force (EU ITF). At this point, the *Bundesanstalt für Geowissenschaften und Rohstoffe* (BGR) is the central actor with the strongest ties to other initiatives and the focus still seems to be on the upstream supply chain and in-

region activities.

Second, the picture already changes slightly in 2010. The International Tin Research Institute (ITRI) initiative is now also more active in the network and interacts qualitatively better with the other initiatives. Furthermore, the International Conference on the Great Lakes Region (ICGLR) initiative was able to bind many other initiatives to its standard development from its emergence. Interestingly, the OECD also develops more interaction with other initiatives, but less intensively. Probably since the OECD guidelines were still in their developmental phase. Lastly, the Conflict-Free Smelter (CFS) initiative is becoming a part of the core of the conflict minerals governance arena. However, the sub set still consists of *Bundesanstalt für Geowissenschaften und Rohstoffe* (BGR), Congolese Government Initiatives (CGI), European Union International Task Force (EU ITF), but now also includes the International Tin Research Institute (ITRI) and International Conference on the Great Lakes Region (ICGLR) initiatives. Here, the focus seems to move up the supply chain from the upstream supply chain to the smelting stage that connects the up- and downstream supply chains.

Third, the former sub set is already falling apart in 2011, which marks the emergence of initiatives that focus more on downstream due diligence measures. The Public-Private Alliance for Responsible Minerals Trade (PPA) initiative emerges as an initiative that interacts intensively with other initiatives by making them a member of their organization. In addition, the OECD, Conflict-Free Smelter (CFS) protocol and US Security and Exchange Commission (SEC) initiatives develop more and better contact with other initiatives, making it difficult to observe a clear sub set, although the sub set of 2010 is still recognizable. However, several gold initiatives start to cooperate quite intensively, though not as much as the other sub set, and form a second sub set in the conflict minerals governance arena. These gold initiatives consist of the Dubai Multi Commodities Centre (DMCC), the London Bullion Market Association (LBMA), the Responsible Jewellery Council (RJC), and the World Gold Council (WGC) initiatives. It can be explained by their cooperation on the gold supplement of the OECD guidance.

Finally, it is hard to identify a specific sub set in the network of 2012, since many initiatives interact more often and rather extensively. A sub set of gold initiatives still seems to exist, although weakened, but the 'original' sub set where the *Bundesanstalt für Geowissenschaften und Rohstoffe* (BGR) initiative was the central actor has grown too large compared to the total amount of initiatives to speak of a sub set anymore. Interaction between the majority of initiatives is now firmly established. Also, the quality of interaction has increased, as the 2012 network shows thicker lines as the 2011 network. It indicates that the initiatives not only interacted more often with each other, but also more intensively than during previous years.

The identification of these sub sets is important, since the existence of sub sets can inflate a networks density degree and cloud the actual activity within a network, making it harder to interpret the network (Wasserman & Faust, 1994). Such a limitation implies that statements about the level of interaction should be derived with great caution, taking the network size and the existence of sub groups into account. However, with the introduction of six new initiatives to the network in 2011, the degree percentage rises with 4%, while density normal decreases with the introduction of new actors, since it takes time before initiatives are able to make connections with other initiatives. The small 4% rise might imply that the sub set started to dissolve and blended in the existing network.

In addition to the density numbers, data on the degree of centralization make it possible to further refine these observations. The centralization numbers show a rapid decrease in 2012 by 18%, compared to 2011, after an initial continuous increasing trend in the period 2009-2011. Centralization is, similar to density, an indicator of how well-connected a network is. It considers the

number of direct links to and from other initiatives and gives the initiative with the most links the highest centrality score. After this, the data on the individual level serves as a basis for the degree of centralization of a network as a whole, according to the following formula (Sandström & Rova, 2010; Wasserman & Faust, 1994):

$$C_x = \frac{\sum_{i=1}^n [C_x(p^*) - C_x(p_i)]}{\max \sum_{i=1}^n [C_x(p^*) - C_x(p_i)]}$$

Where  $p^*$  indicates the most well-connected initiative,  $p_i$  the centrality of the 'ith' initiative, and the maximum is taken over all possible graphs with  $n$  initiatives (Sandström & Rova, 2010). Centrality then provides a measure of how hierarchical a network is: whether connections are coordinated and run through only several actors, or not. A high centralization degree indicates that communication flows are indirectly well-connected through a coordinating unit (*Ibid.*).

Interestingly, the centralization degrees show a steady increase in the 2009-2011 period, followed by a sharp decline in 2012. First of all, it confirms that several initiatives became more central and thus more important in coordinating the communication in the network towards 2011. The centralization degrees therefore provide further confirmation of the suspicion of an existence of a sub set of initiatives, pulling the strings in the network. The sharp centralization degree decrease in 2012 might further substantiate the claim that the original *Bundesanhalt für Geowissenschaften und Rohstoffe* (BGR) sub set initiatives mostly dissolved in the network, implying that many other initiatives also started to play a role in the coordination of interaction flows. Despite the sharp decline in centralization in 2012, 24% is still a significant centralization degree which indicates that there still is many indirect interaction between the different initiatives.

The question is what these developments in the density and centralization data mean for the development of network closure of the conflict minerals governance arena. The existence of sub sets in the 2009-2011 period implies that actual density levels should be lower than the current numbers indicate. It would mean that the network only shows moderate levels of network closure in the early years of the networks development, while steadily increasing to moderate or even high levels of network closure in 2011. Taking into account that the sub set dissolves in 2012, there is an exponential increase in the density of the network in 2012. However, the increase in density is accompanied by a sharp decrease of centralization. In the end, the data suggest that network closure remains at a moderate to high level. These levels of network closure imply that, in general, there are many opportunities for the initiatives in the network to initiate collective action, whether it is about initiating a new initiative or cross-recognizing each other's standards. Over the years, there is also a steady increase of network closure, meaning that the initiatives create more links among each other over the years and increase opportunities for collective action. In the end, this creates more potential for a better performance of a network. However, the decrease in the degree of centralization in 2012 implies that communication flows are less well-coordinated compared to previous years. It might result in less efficient prioritising of issues in conflict minerals governance and might decrease the swiftness with which collective action can be organized.

Turning attention towards network heterogeneity, the diversity of initiatives rises with every year. The diversity number is based on the number of involved actor types in the network in a given year, with a maximum number of 9 different actor types. As already became clear from several

governance characteristics and interaction development graphs, the conflict minerals governance arena brings together a diverse set of actors who represent different societal spheres and interests, which increases over the years. Most actors, however, have a governmental or a private sector background and dominate most of conflict minerals governance. At the same time, there is also a large percentage of cross-boundary interaction throughout the whole development of conflict minerals initiative interaction. Although cross-boundary interaction is decreasing only slightly in 2011 and 2012, their percentages are still very high. The cross-boundary interaction measure is based on the number of links connecting initiatives with different initiating actors divided by the number of total links in the networks. The measure thus shows how much of the interaction takes place between initiatives with different actor interests, such as interaction between government-initiated and business association-initiated initiatives. The high percentages of cross-boundary interaction found in the network analysis indicate that the far majority of interaction takes place between initiatives with different initiating actor background. It shows that conflict minerals governance interaction is above all a multi-actor effort, bringing together actors from government, market, and civil society.

Together with the high diversity of actors in the network, these data imply a high level of network heterogeneity in the conflict minerals governance network, assuming that a diversity of actors and a diversity in interaction is an indicator for the promotion of a diversity in ideas, knowledge, perspectives, and values in the conflict minerals governance process (Sandström & Rova, 2010: 5). At the same time, social network theory suggests that collaboration and rule setting and monitoring thrive better in more homogenous networks. In the case of conflict minerals governance, government and market actors dominate the actor pool in conflict minerals governance. Their dominance might make the network more homogenous, but it also promotes more efficient collaboration and regulatory activities. The conflict minerals governance arena therefore offers many possibilities to access various kinds of resources by the initiatives, while at the same time showing potential for efficient collaboration and rule making. It can therefore be argued that this network heterogeneity offers much potential to increase the performance of the conflict minerals governance arena.

To conclude, both the visualized networks, also indicating the quality of interaction, and the network measures show that the conflict mineral arena network features should lead to a better performance of conflict minerals governance. However, as there exists no general standard that prescribes how to interpret the values of network measures, it is difficult to make objective statements about network density and heterogeneity. In addition, these data are not compared against similar studies of governance arenas, which would reinforce the understanding about the relationships between network features and their overall performance.

### **7.3. Impact of conflict minerals governance**

Collecting data on the production of conflict minerals in the Great Lakes Region is a difficult exercise for several reasons. Especially in Congo, production data are unreliable because of a lack of information, a weak state capacity and poor coordination between all the different involved stakeholders. Furthermore, many actors have an interest in undervaluing minerals to evade taxation, including some state officials (International Alert, 2010: 30). Rather than being smuggled, production data on tantalum, tin, and tungsten (the 3Ts) are underreported (Enough, 2009). Gold, on the other hand, is more smuggled than underreported (Enough, 2012). Several researchers believe that the 3Ts are underreported by a rate of 35% (Enough, 2009, Garrett & Mitchell, 2009). However, NGO Enough

argues that the 35% underreportment rate might only be a conservative estimate for underreportment. Other NGOs, such as the locally-based NGO Pole Institute, the Initiative for Central Africa, and the governmental United Kingdom Department for International Development, report cases of 40-130% underreportment (Enough, 2009). Due to underreportment and considering additional trade flows, data on the total production of conflict minerals, as provided here by the US Geological Survey, are believed to far below their actual production figures.

<b>Tantalum (metric tonnes)</b>					
	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Congo	140	130	110	95	95
Rwanda	150	120	93	93	90
<b>Tungsten (metric tonnes)</b>					
	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Congo	370	200	25	30	-
Rwanda	670	450	390	620	-
<b>Tin (metric tonnes)</b>					
	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Congo	9900	7800	6800	2900	5700
Rwanda	850	960	1400	1400	3600
<b>Gold (kilogrammes)</b>					
	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Congo	3300	3500	3500	3500	-
Rwanda	40	30	3	4	-
<b>3Ts (metric tonnes)</b>					
	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Congo	10410	8130	6935	3025	5795
Rwanda	1670	1530	1883	2113	3690

**Table 15** Conflict mineral production for Congo and Rwanda in metric tonnes (except indicated otherwise), based on data of the US Geological Survey (2013a, 2013b, 2013c).

<b>3Ts</b>	<b>East Congo production (metric tonnes)</b>	<b>World production (metric tonnes)</b>	<b>East Congo share in world production (%)</b>
Tin	24592	350000	6-8%
Tantalum	155	815	15-20%
Tungsten	1300	54600	2-4%
Gold	6,5	2330	<1%

**Table 16** Conflict mineral production for East Congo, total world production, and East DRC share of world production for each conflict mineral in metric tonnes for the year 2008, based on data of NGO Enough (2009).

Initiatives	Region (in <i>italics</i> ) and conflict mineral	2009 production (metric tonnes)	2010 production (metric tonnes)	2011 production (metric tonnes)	2012 production (metric tonnes)
BGR	<i>Rwanda</i>				
	Cassiterite	493	-	-	-
	Coltan	39	-	-	-
	Wolframite	349	-	-	-
CFTI	<i>South Kivu (DRC)</i>				
	Cassiterite	-	-	-	200
ITRI	<i>Katanga (DRC)</i>				
	3Ts	-	-	3837	3233 (until Quarter 3)
	<i>Rwanda</i>				
	3Ts	-	-	6847	5675 (until Quarter 3)
SFH	<i>Katanga (DRC)</i>				
	Coltan	-	-	10	60 (until June)

**Table 17** Conflict-free mineral production data for Bundesanstalt für Geowissenschaften und Rohstoffe (BGR), Conflict-Free Tin Initiative (CFTI), International Tin Research Institute (ITRI) and Solutions for Hope (SfH) for each year (Blore, 2011; CFTI, 2013; ITRI, 2013a, 2013b; SfH, 2013)

Table 15 shows the production data for both Congo and Rwanda, since conflict mineral initiatives are only active in these two countries in the Great Lakes Region for the 2008-2012 period. In case of Congo, there are several indications that the production values are far below actual values. NGO Enough reports, for instance, a production of 24592 metric tonnes of tin in 2008 from East Congo alone, including an underreportment rate of 35% (see Table 16). Second, as is discussed below, conflict-free mineral production actually extends some of the reported figures by the US Geological Survey. The conflict mineral production in the region where most of conflict mines are found, namely East Congo, is believed to contribute 6-8% of the world tin production; between 15-20% of world tantalum production; between 2-4% of world tungsten production; and less than 1% of gold production, based on 2008 world production data (Enough, 2009).

Of the initiatives that are active in the Great Lakes Region, four have published production data on the amount of conflict-free minerals they have produced (see Table 17). To start with, the *Bundesanstalt für Geowissenschaften und Rohstoffe* (BGR) initiative published data on its traceability pilot in Rwanda in 2009. According to the *Bundesanstalt für Geowissenschaften und Rohstoffe* (BGR) initiative and based on Rwanda's export figures, the pilots production figures account for 12% of Rwandan cassiterite production; 4% of its coltan production; and 40% of wolframite production, also noting that actual proportions might be higher (Blore, 2011). However, BGRs calculation of Rwandese conflict mineral production would already exceed the 3Ts production figures for Rwanda presented by the US Geological Survey. One explanation might be that many conflict minerals stemming from East Congo are 'laundered' in Rwanda and then exported, making Rwandese export figures rather unreliable (Global Witness, 2010). Another explanation is that the US Geological Survey focuses on concentrates of conflict minerals (3Ts) instead of indicating raw materials (cassiterite, coltan,

wolframite), which might explain this outlier. The International Tin Research Institute (ITRI) 3Ts production figures of the Katanga province and Rwanda, however, also exceed the data provided by the US Geological Survey, especially for tin production. If the International Tin Research Institute (ITRI) production figures for the Katanga province figures are compared to the Enough 2008 figures for East Congo instead (only focusing on the North and South Kivu provinces), the International Tin Research Institute (ITRI) figures might be in the order of 7% of total production in East Congo. Next, the production of cassiterite and coltan by the closed-pipe supply chains of Conflict-Free Tin Initiative (CFTI) and the Solutions for Hope (SfH) initiative, however, still fall within production figures of the US Geological Survey. If a comparison is drawn with the 2008 figures of Enough, the Conflict-Free Tin Initiative (CFTI) only accounts for 0,8% tin production. The Solutions for Hope (SfH) initiative, on the other hand, would account for a significant 38% of coltan production, but Solutions for Hope (SfH) sources from Katanga and not from the Kivu provinces. Strikingly, gold is absolutely absent among the conflict mineral production data of conflict mineral initiatives. Only recently, in 2012, the Partnership Africa Canada (PAC) initiative started setting up a closed-pipe supply chain for conflict-free gold in East Congo.

Considering all the limitations of comparing conflict mineral production figures and the reliability of the data itself, statements about the impact of conflict mineral initiatives on conflict-free mineral production can be sketchy at best. First, production data are not reliable, mostly due to underreportment. Second, not many initiatives are active in the conflict hotbed provinces of North Kivu and South Kivu. Despite the fact that the initiatives produce conflict-free minerals, it could be questioned whether these developments impact the East Congo area, where most of the conflict mining occur. On the other hand, the East Congo provinces are not the only provinces suffering from the conflict mineral image of Congo. A news report claimed that conflict mineral production in other areas of the Congo stalled due to the shadow that was casted by the Dodd-Frank, Section 1502 provisions (Hogg, 2012). The demand for these minerals greatly decreased, because companies rather avoided to report on the sourcing of minerals from Congo to the US Security and Exchange Commission (SEC) and decided to look for other sourcing possibilities. It could therefore be argued that the initiatives do have an impact, even though it takes place outside the perceived conflict hotbeds in the East Congo provinces. The in-region initiatives operate in the more peaceful northern area of the Katanga province, or in Rwanda. The choice to test conflict-free mining schemes in the more peaceful areas of the Great Lakes Region is largely motivated by the fragile security situation and the weak state capacity and control in many areas in East Congo. Operating in areas that are not under government control is therefore almost impossible for the initiatives without an improvement in security. The Conflict-Free Tin Initiative (CFTI) receives for instance help in securing their mines from the United Nations (UN) MONUSCO mission that tries to secure East Congo from rebel groups. Only with this help, the Conflict-Free Tin Initiative (CFTI) is able to operate in this region. A third reason why statements about conflict mineral initiative impact are hard to formulate, relates to the short existence of many conflict mineral initiatives. Many initiatives only operate for several years and are still in a test or pilot phase. However, the goal of these test and pilot projects is to eventually extend their programmes over other parts of the Great Lakes Region. Such developments are already taking place with the Conflict-Free Tin Initiative (CFTI) initiative as a prime example. The International Tin Research Institute (ITRI) initiative has also extended its programme to the Maniema province, while the *Bundesanstalt für Geowissenschaften und Rohstoffe* (BGR) is setting up a certification project in East Congo.

If one should assess the impact of conflict minerals governance on conflict mineral mining, it

could therefore be stated that the impact of conflict minerals governance on mineral production is in its infancy at best. The actual impact of current conflict mineral initiatives might start to become visible in a multitude of years. Currently, the security situation in East Congo remains bad and the Congolese government is still not able to control some areas in this region, making it difficult to address the conflict minerals issue. However, as the production data by the conflict mineral initiatives show, conflict mineral initiatives are successfully penetrating the mineral production and trade in other, more peaceful provinces. Although these provinces might not suffer from severe conflict, the initiatives are able to improve livelihoods of miners and safety conditions within the mine. In addition, the initiatives help to increase tax revenue, as mineral production reporting is improved. For now, however, these effects are still modest compared to the total production of minerals in Congo and other Great Lakes countries. The produced conflict-free minerals only serve a small part of the electronics market. In addition, conflict-free gold sourcing initiatives are not active yet in the Great Lakes Region, although the Partnership Africa Canada (PAC) is currently developing such an initiative.

Lastly, it should be assessed to what extent interaction has contributed to the impact of conflict minerals governance in the Great Lakes Region, as far as conflict-free mineral production is concerned. One possibility to assess the role of interaction, is to think of a counterfactual situation in which there would not have been any interaction between the different conflict mineral initiatives (King, Keohane & Verba, 1994). In a counterfactual situation, the Conflict-Free Tin Initiative (CFTI) could not have existed, since it makes use of governance standards of other initiatives, such as the International Tin Research Institute (ITRI) and Conflict-Free Smelter (CFS) initiatives. Similarly, the Solutions for Hope (SfH) initiative could also not have been initiated as it makes use of other initiatives' standards. Moreover, the inspiration for both of these closed-pipe line projects can be traced to multi-stakeholder forums where initiatives met to exchange information and experiences. Turning towards the *Bundesanhalt für Geowissenschaften und Rohstoffe* (BGR) initiative, it is worth mentioning that its organisation assists the International Conference on the Great Lakes Region (ICGLR) initiative in designing and implementing the mineral certification tools in the countries of the Great Lakes Region, based on the experiences in the Rwanda pilot. In addition, almost all of Rwandan mineral production has been certified since 2011 as a result of BGRs efforts (Blore, 2011). Furthermore, the International Tin Research Institute (ITRI) initiative has set a standard with its 'bagging-and-tagging' system for conflict-free sourcing thanks to interaction with other initiatives. Moreover, the International Tin Research Institute (ITRI) initiative helps to set up closed-pipe supply chain initiatives in collaboration with other conflict mineral initiatives. In sum, interaction is a promoting factor for the impact of conflict minerals governance.

However, it remains difficult to establish how great the impact is. It is difficult to identify whether there is a direct relationship between the degree of interaction between conflict mineral initiatives and conflict-free mineral production figures. What can be observed is the importance of interaction in creating a downstream demand for conflict-free minerals from the Great Lakes Region. As many companies have stopped sourcing from the Great Lakes Region after the development of Section 1502 started, current conflict mineral initiatives try to convince companies to deliberately source from the Great Lakes Region again. Especially the closed-pipe supply chain initiatives manage to bind different initiatives and their up- and downstream actors together in an attempt to increase mineral production in the Great Lakes Region. Interaction between conflict mineral initiatives then plays a vital role in creating the necessary demand.

By way of conclusion, it could be argued that conflict-free mineral production data do not do



justice to the current efforts of conflict mineral initiatives. The initiatives had to start from scratch in designing governance tools that could tackle the conflict minerals issue. Many of these systems are still in an experimental phase and initiatives interact with one another in order to improve the current tools and to increase the potential of introducing these systems on a much larger scale. The groundwork for adequate conflict minerals governance is currently being constructed. The future might show whether the current potential will transform current practices in the entire Great Lakes Region and put an end to the conflict minerals problem.

## 8. Conclusion

Conflict mineral initiatives were and continue to be faced with a complex task. During the emergence of conflict minerals governance, little was known about the supply chain structure of conflict minerals. Moreover, the far majority of end-user companies, notably in the electronics industry, did not have a clue about who the conflict minerals suppliers were. The early conflict mineral initiatives therefore emerged out of a motive to secure conflict-free minerals from the Great Lakes Region. The complexity and uncertainty about how to approach the conflict minerals issue provided strong incentives to interact with one another.

The development of conflict minerals governance was subsequently greatly increased by the US government by developing Section 1502 of the Dodd-Frank Act and the OECD Due Diligence Guidelines. Where NGOs had been instrumental in putting the conflict minerals issue on the policy agenda, the provisions set by the US Securities and Exchange Commission (SEC) and the OECD more or less forced conflict mineral using companies to address the issue. Although many companies initially reacted by pulling out of the region and sourcing the minerals elsewhere, several business associations were active in setting up due diligence measures for their respective sectors. Later business initiatives also focused on deliberate sourcing from the Great Lakes Region, as it was soon discovered that Section 1502 invigorated an immense withdrawal from companies from the Great Lakes Region so that conflict minerals trade came to a full standstill and left thousands of families without an income. Actors such as the OECD, the US Securities and Exchange Commission (SEC), and business associations have not only been crucial in motivating companies to adapt their policies, but also by facilitating venues where the different stakeholders were able to interact. The OECD has set up bi-annual multi-stakeholder meetings, the US Securities and Exchange Commission (SEC) set up various consultation rounds, and business associations such as the Electronic Industry Citizenship Coalition (EICC), the Global e-Sustainability Initiative (GeSI), and the International Tin Research Institute (ITRI) set up workshops and trainings.

Such venues offer companies and other relevant stakeholders a platform where experiences with conflict minerals governance can be exchanged. Such underlying conditions, as described above, not only influenced the quantity of interaction taking place between conflict mineral initiatives, but also its quality. While information sharing forms the main part of interaction, it also resulted in more extensive forms of interaction, such as the cross-recognition of standards or the cooptation of other initiatives' standards in one's own regulations. The OECD guidelines and the Section 1502 provisions are a primary example in this context and serve as a main regulatory reference for almost any conflict mineral initiative. Closed-pipe supply chain initiatives, on the other hand, integrate several conflict mineral initiatives and their standards to create a fully traceable supply chain from mine to end-user. In some cases, interaction between different stakeholders at conflict minerals governance venues resulted in the initiation of wholly new conflict mineral initiatives, as with the Conflict-Free Tin Initiative (CFTI). The results show that interaction can thus result in different outcomes for the institutional characteristics of conflict mineral initiatives.

It was also shown that conflict minerals governance interaction is a highly dynamic process that takes various shapes during different governance process stages of initiatives. This already becomes evident when looking at the development of conflict mineral initiatives themselves. Emerging initiatives are less inclined to interact during their development, but more during their implementation and monitoring and evaluation stages. As initiatives often focus on one part of the conflict mineral supply chain, they depend on other initiatives when they start implementing their

policies in order to source their minerals conflict-free completely. Oftentimes, such a logic applies to the in-region active, upstream-focused initiatives and the downstream-focused initiatives. Upstream initiatives need a demand for conflict-free minerals, where downstream initiatives are looking for credible suppliers and supply standards. This logic also implies that different actor groups might be of importance during different governance process stages. Furthermore, the nature of conflict minerals governance interaction also transformed over the years as interaction between initiatives further increased. Where initial interaction was focused on the acquisition of knowledge about the region and standard development, more recent initiatives also aim to harmonize standards and thereby orchestrate the development of conflict minerals governance. The result is that a larger variety of activities (or governance functions) of conflict mineral initiatives are the subject of interaction, which has led to an intensification of interaction over the years.

The effects of interaction on the performance of conflict minerals governance have been extensively covered by applying several different methods. In terms of good governance, a correlation seems to exist between the amount of interaction and the extent to which good governance principles are embodied in the institutional characteristics of conflict mineral initiatives. Furthermore, the network structure features suggest an increasing performance trend of conflict minerals governance over the years and shows that the quality of interaction equally increases. The conflict-free production data, lastly, show that the impact of conflict minerals governance on production in the Great Lakes Region is in its infancy, as far as production data are accurate and available. However, it has been argued that it might be too early to assess this impact, since many in-region initiatives are still in the process of testing and rolling out their approaches.

By way of answering the main research question, it has been shown that interaction, in all its varieties and qualities, has helped to increase conflict minerals governance performance. More specifically, interaction has an effect on the content characteristics of conflict mineral initiatives. It stimulated an increased attention for gold, a development of entire supply chain approaches, and a more transnational focus. All of which greatly increased the scope and, ultimately, the effectiveness of conflict minerals governance. The increased interaction trend furthermore corresponds with more diverse stakeholder involvement, which should lead to more acceptance of policies and more effective governance outcomes. In addition, the amount of interaction that involves governance functions like monitoring and certification and rule setting show that interaction is also instrumental for streamlining regulatory standards to lower the regulatory burden for companies and their suppliers. Lastly, in terms of good governance principles, the increase in interaction corresponds to an increase in consensus and participation; in effectiveness, efficiency and responsiveness; and most of all in accountability. However, interaction does not influence every institutional characteristic of an initiative. Features such as governance modes, governance instruments and the sustainability focus hardly change after they have been established at the launch of an initiative. This observation shows that interaction can only change the performance of conflict mineral initiatives to a certain extent. Regardless of the interaction intensity, initiatives will probably not easily give up their founding premises. Obviously, this does not necessarily need to have a detrimental effect on the performance of governance arena, but it could lead to a too narrow focus. In case of conflict minerals governance, for instance, the narrow focus on societal and economic issues has led to a negligence of environmental issues related to conflict minerals mining.

By generating these results, it is hoped that the thesis provides several important insights in a field that has hardly been investigated in the transnational governance literature. Compared to other sustainable supply chain issue arenas (such as coffee, tea, cacao, etc.), the conflict minerals

governance arena seem to be a relatively unique case with regards to the intense forms of interaction, the quality of interaction, and the willingness of all the different actors to jointly tackle the conflict minerals problem. In addition, the research presented here shows how interaction between transnational governance interactions could be meaningfully investigated. The field of transnational governance interactions has only recently emerged and the research therefore helps to advance this field of study. Most importantly, the research has shown that transnational governance interactions can be assessed using other methodologies than a mere case study approach. In addition, one can make stronger claims about the effects of interaction on a governance system by using multiple methodologies.

Finally, it is hoped that the results also contribute to the development of conflict minerals governance itself. In order to do so, the thesis concludes here with several remarks for a further enhancement of conflict minerals governance effectiveness. First of all, conflict mineral initiatives need to keep broadening the scope of their activities. Apart from a societal and economic focus, initiatives should also start to consider the effects of their mining activities on local biodiversity. Although there might be several general environmental considerations taken into account, such as the prevention of cyanide pollution caused by the extraction of gold, most initiatives do not incorporate specific environmental principles in their own regulatory standards. Second, initiatives could also broaden their activities to other parts of the world. The standards of conflict mineral initiatives could be extended to other countries where there is not necessarily violent conflict, but still a situation of poor working conditions in the mines and high levels of corruption in the minerals trade. Third, more interaction is needed between the gold sector and the tantalum, tin, and tungsten (3Ts) sector. The two sectors operate rather independently of one another, while there is more harmonization potential, especially with regards to due diligence measures. However, at the same time, it is important that the benefits of a tailored approach for the two sectors are retained. The downstream gold market has a different structure compared to the 3Ts downstream supply chains, and therefore requires different governance strategies. Fourth and last, the closed-pipe supply chain concept should be further extended in order to create a permanent demand for conflict-free minerals from the Great Lakes Region and to create a lasting and stable socio-economic situation in the region.

As a final remark, the research has shown that many conditions that facilitate a better performance of conflict minerals governance are already met. To a large degree, the development of conflict minerals governance is a matter of time. Each initiative results in new learning experiences that can feed into an alternate design of conflict mineral initiatives or even help to initiate new initiatives. One by one, these learned lessons help to take conflict minerals governance to a higher level. In any of these cases, interaction helps initiatives to climb the next step on the regulatory ladder, thereby increasing conflict minerals governance performance.

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## 10. Appendix – List of selected conflict mineral initiatives and their year of initiation

<b>Conflict mineral initiative</b>	<b>Year of initiation</b>
Bundesanstalt für Geowissenschaften und Rohstoffe (BGR)	2008
International Tin Research Institute (ITRI)	2008
Conflict-Free Smelter (CFS)	2009
Congolese Government Initiatives (CGI)	2009
European Union International Task Force (EU ITF)	2009
Organisation for Economic Co-operation and Development (OECD)	2009
Automotive Industry Action Group (AIAG)	2010
International Conference on the Great Lakes Region (ICGLR)	2010
Kemet Partnership for Social and Economic Sustainability (KEMET)	2010
Responsible Jewellery Council (RJC)	2010
US Securities and Exchange Commission (SEC)	2010
World Gold Council (WGC)	2010
Canadian Conflict Mineral Bill (CA)	2011
Conflict-Free Tin Initiative (CFTI)	2011
Dubai Multi Commodities Centre (DMCC)	2011
London Bullion Market Association (LBMA)	2011
Public-Private Alliance for Responsible Minerals Trade (PPA)	2011
Solutions for Hope (SfH)	2011
Conflict-Free Smelter Early Adopters Fund (CFS EAF)	2012
Partnership Africa Canada (PAC)	2012