





Certifying Natural Resources

A Comparative Study on Best Practice and Future Scenarios for the Certification of Trading Chains in Mineral Production

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Background

Mineral certification has been proposed as a lever to single out "clean" production from conflict-related or unacceptable mining conditions.

In response to the United Nations' Panel of Experts on the Illegal Exploitation of Natural Resources in the Democratic Republic of Congo (DRC) call for transparency in mineral production BGR developed a chain of custody assurance system for enhancing transparency, traceability and ethical responsibility in the trade of minerals (www.bgr.bund.de/mineral-certification). BGR's concept of Certified Trading Chains (CTC) found its way into the resolutions of the G8 summit in Heiligendamm in 2007. In the meantime, it has been further developed and implemented with partners in Rwanda and DRC.

Commissioned by the German government, BGR continues to support the International Conference of the Great Lakes Region's (ICGLR) efforts towards a regional certification system. In this context, it is decisive that the certification system promises long term effectiveness, legitimacy and efficiency. Several years of experience of initiatives operating in a variety of natural resource sectors such as timber, fish, or diamonds offer a deeper understanding of the conditions for success of global standards and certification schemes (GSCSs).

Therefore, BGR commissioned the University of Munich (LMU Munich) to conduct a research project for evaluating schemes engaging in social and environmental sustainability issues in natural resources.

The sample includes Forest Stewardship Council (FSC), Fairtrade Labeling Organizations International (FLO), Global Reporting Initiative (GRI), Marine Stewardship Council (MSC), Kimberley Process Certification Scheme (KPSC), Extractive Industries Transparency Initiative (EITI), International Standardizing Organization (ISO), and Voluntary Principles for Security and Human Rights Initiative (VPI).

The central research question is: what institutional characteristics lead to success of global standards and certification schemes? By studying the institutional design of existing global standards and certification schemes the project explains varying levels of success irrespective of the individual case's sector specifics. In the project institutional characteristics are understood to include aspects of financing, actor participation, decision-making processes, governance structure, business incentives and several others.

The results pinpoint ways forward as well as challenges with regards to certification and due diligence efforts in the mineral sector, notably the ICGLR Regional Certification Mechanism and CTC.

Hintergrund

Die Zertifizierung mineralischer Rohstoffe wird als ein Instrument gesehen, sogenannte "saubere" Produktion von konflikt-belasteten oder unter nicht akzeptablen Bedingungen gewonnenen Rohstoffen abzugrenzen.

Die Forderung nach mehr Transparenz in Rohstoffproduktion und -handel der UN-Expertengruppe zur illegalen Ausbeutung natürlicher Ressourcen in der Demokratischen Republik Kongo hat die BGR mit der Entwicklung eines Zertifizierungssystems, das auf transparente, nachverfolgbare und ethische Lieferketten abzielt, aufgenommen (www.bgr.bund.de.mineral-certification). Das Konzept der zertifizierten Handelsketten (CTC) fand Eingang in Beschlüsse des G8-Gipfels von Heiligendamm im Jahr 2007 und wurde gemeinsam mit Partnern in Ruanda und der DR Kongo weiterentwickelt.

Seit 2008 unterstützt die BGR im Auftrag der Bunderegierung den Aufbau und die praktische Umsetzung eines regionalen Zertifizierungsmechanismus der Internationalen Konferenz der Großen Seen (International conference on the Great Lakes Region, ICGLR). In diesem Kontext ist es entscheidend, dass das Zertifizierungssystem langfristige Effektivität, Legitimität und Effizienz verspricht.

Jahrelange Erfahrung von Initiativen zu verschiedensten natürlichen Ressourcen (Holz, Fisch, Diamanten) bieten ein tieferes Verständnis über die Erfolgsbedingungen von globalen Systemen der Standardsetzung und Zertifizierung.

Vor diesem Hintergrund hat die BGR die Ludwig-Maximilians-Universität München beauftragt, relevante Initiativen zur Standardsetzung und Zertifizierung, die im Bereich natürlicher Ressourcen Nachhaltigkeit fördern, vergleichend zu analysieren.

Die Fallauswahl umfasst Forest Stewardship Council (FSC), Fairtrade Labeling Organizations International (FLO), Global Reporting Initiative (GRI), Marine Stewardship Council (MSC), Kimberley Process Certification Scheme (KPSC), Extractive Industries Transparency Initiative (EITI), International Standardizing Organization (ISO) und Voluntary Principles for Security and Human Rights Initiative (VPI).

Im Fokus der Forschungsarbeit stand, welche existierenden Initiativen als erfolgreich angesehen werden können und auf welchen Faktoren dieser Erfolg beruht. Um generalisierbare Ergebnisse über die Bandbreite der verschiedenen Fälle zu erzeugen, wurden vor allem die institutionellen Eigenschaften der GSCS in Bezug zu deren jeweiligen Erfolgswerten gesetzt. Denn nur diese können der BGR diejenigen Stellschrauben aufzeigen, die sich als unabdingbar für ein erfolgreiches Zertifizierungssystem erweisen. Institutionelle Eigenschaften umfassen dabei Aspekte der Finanzierung, der Beteiligung von Akteuren, Entscheidungs- und Steuerungsprozesse, Anreizsysteme und viele andere.

Die Ergebnisse zeigen erfolgreiche Praktiken sowie Herausforderungen bei der Ausgestaltung von Zertifizierungssystemen, wie etwa des regionalen Zertifizierungsmechanismus der ICGLR oder CTC, auf.

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List of Acronyms

BGR Bundesanstalt für Geowissenschaften und Rohstoffe –

Federal Institute for Geosciences and Natural Resources

CS Civil Society

CTC Certified Trading Chains

EITI Extractive Industries Transparency Initiative

FLO Fairtrade Labeling Organizations International

FSC Forest Stewardship Council

GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit

GRI Global Reporting Initiative

GSCS Global Standards and Certification Scheme

ICGLR International Conference on the Great Lakes Region

International Organization

ISO14 International Standard ISO 14001:2004 Environmental Management Systems

KPCS Kimberley Process Certification Scheme

MSC Marine Stewardship Council

OECD Organization for Economic Cooperation and Development

OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from

Conflict -Affected and High-Risk Areas

RCM Regional Certification Mechanism

UN United Nations

VPI Voluntary Principles for Security and Human Rights Initiative

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Zusammenfassung

- Anliegen des vorliegenden Projekts ist es, die institutionellen Eigenschaften zu identifizieren, die den Erfolg so genannter Global Standards and Certification Schemes (GSCSs) bedingen.
- 2. Der Begriff Erfolg ist im Kontext von GSCSs komplex. Um dieser Komplexität gerecht zu werden, greift das Projekt auf ein mehrdimensionales Konzept von Erfolg zurück. Danach bemisst sich der Erfolg von GSCSs nach ihrer Effektivität, Legitimität und Effizienz. Im Rahmen von Effektivität wird zudem zwischen Regeleinhaltung (compliance) und Wirkung (impact), im Rahmen von Legitimität zwischen prozeduraler und substantieller Legitimität, und im Rahmen von Effizienz zwischen Anpassungsfähigkeit und finanzieller Nachhaltigkeit unterschieden.
- 3. Die im Projekt untersuchten acht GSCSs werden in einer umfassenden Expertenbefragung hinsichtlich ihres Erfolgs zwar alle insgesamt positiv bewertet. Doch in den verschiedenen Erfolgsdimensionen wird ihr Erfolg zumeist recht unterschiedlich eingeschätzt. Diese Unterschiede lassen sich auf ihre institutionellen Eigenschaften zurückführen. Dabei sind es in jeder Erfolgsdimension je spezifische institutionelle Eigenschaften, die den Erfolg der betrachteten GSCSs begünstigen oder behindern.
- 4. In Bezug auf die Erfolgsdimension der "Regeleinhaltung" kommt es auf das institutionelle Design des Systems der Überwachung der Regeleinhaltung an. Für den Erfolg entscheidend ist hier, dass dieses System der Überwachung der Regeleinhaltung sich auf Drittparteien stützt, die von der zentralen Standardsetzungsinstanz weitgehend unabhängig sind. So greifen die erfolgreicheren GSCSs - FLO, ISO14, MSC und FSC - auf ein (1) Auditing durch unabhängige Dritte zurück, welche (2) ihrerseits wiederum selbst durch unabhängige Dritte akkreditiert sind; (3) auch die eigentliche Überwachung der Regeleinhaltung erfolgt dabei durch unabhängige Drittparteien, welche regelmäßige Inspektionen vor Ort durchführen ("Polizeistreife"); (4) etwaige Streitigkeiten über behauptete Regelverstöße werden ebenfalls durch unabhängige Drittparteien geschlichtet. (5) Die jeweiligen Sanktionsmöglichkeiten der GSCSs

- sind hingegen für die Regeleinhaltung nicht sonderlich entscheidend. Um die Regeleinhaltung zu sichern, genügt es zumeist, dass GSCSs Privilegien wie die Nutzung eines Zertifikats wieder entziehen können. Den hinsichtlich der Regeleinhaltung minder erfolgreichen GSCSs GRI, KPCS, VPI und EITI mangelt es an diesen institutionellen Eigenschaften.
- 5. In Bezug auf die Erfolgsdimension "Wirkung" kommt es darauf an, dass GSCSs auf stringente und flexible Standards setzen, welche zugleich "anreizkompatibel" bleiben. Um dies zu erreichen, setzen die erfolgreicheren GSCSs - FLO, GRI und FSC – auf Standards, die (1) Prozessstandards durch Performanzstandards oder Herkunftsstandards ergänzen; (2) Minimumstandards durch Progress- und Maximumstandards ergänzen; (3) sich als genaue Regeln messen lassen; (4) kontextspezifisch sind; und (5) rein reputationsbezogene Anreize durch rechtliche und/oder finanzielle Anreize ergänzen. Den hinsichtlich der Wirkung minder erfolgreichen GSCSs - MSC, VPI und EITI - mangelt es an diesen institutionellen Eigenschaften.
- 6. In Bezug auf die Erfolgsdimension der "prozeduralen Legitimität" erweist es sich als entscheidend, dass GSCSs eine vergleichsweise hierarchische Organisationsstruktur aufweisen, in der einerseits ein starker Vorstand über weitreichende Entscheidungskompetenzen verfügt, in der aber andererseits auch alle relevanten Stakeholder offen an der Entscheidungsfindung beteiligt werden. Die hinsichtlich ihrer prozeduralen Legitimität erfolgreichsten GSCSs - GRI, ISO14 und FSC - verfügen mit lediglich geringfügigen Abweichungen über (1) eine multi-stakeholder Mitgliedschaft; (2) eine föderale und/oder korporatistische Repräsentation dieser multi-stakeholder Mitgliedschaft; (3) von der multi-stakeholder Mitgliedschaft dominierte Verfahren zur Bestellung des Vorstands; sowie (4) für alle stakeholder offene Konsultationsverfahren. Sie haben aber auch (5) einen Vorstand, der zentrale Entscheidungen über den Standard selbst treffen kann oder dazu nur eine Mehrheit der Mitglieder gewinnen muss. Den hinsichtlich der prozeduralen Legitimität minder erfolgreichen GSCSs - MSC, KPCS, FLO und VPI – mangelt es an diesen institutionellen Eigenschaften.

- 7. In Bezug auf die Erfolgsdimension der "substantiellen Legitimität" des jeweiligen Standards kommt es darauf an, dass GSCSs die regelmäßige Evaluation und Überarbeitung ihrer Standards basierend auf technischer Expertise fest institutionalisieren. Dementsprechend besitzen die erfolgreicheren GSCSs - ISO14, FSC und GRI - (1) institutionalisierte Verfahren für die Evaluation ihrer Standards; (2) offene Verfahren für die Initiierung der Revision ihrer Standards, an denen sich neben Mitgliedern und Management auch Stakeholder beteiligen können; (3) institutionalisierte Verfahren, die sichern, dass die Expertise ihrer Stakeholder und unabhängiger Experten in die Standardentwicklung einfließen kann; so dass (4) der Standard, dem aktuellen wissenschaftlichen Stand entspricht. Unter den untersuchten GSCSs sind diejenigen minder erfolgreich, denen es an diesen institutionellen Eigenschaften mangelt.
- 8. In Bezug auf die Erfolgsdimension der "institutionellen Anpassungsfähigkeit" ist es entscheidend, dass GSCSs eine vergleichsweise hierarchische Organisationsstruktur mit einem starken Sekretariat und einem starken Vorstand besitzen, aber zugleich zu einer regelmäßigen Evaluation ihrer Organisationsarchitektur verpflichtet sind. Dementsprechend verfügen die erfolgreicheren GSCSs - GRI, FSC und MSC - über (1) ein Sekretariat, das nicht nur administrative, sondern auch substantielle Aufgaben übernimmt, sowie (2) einen Vorstand, der Entscheidungen über den Standard selbständig fällen kann (oder lediglich einen Mehrheitsentscheid unter den Mitgliedern erwirken muss). Zugleich haben die untersuchten GSCSs, die in ihrer Anpassungsfähigkeit als besonders gut eingeschätzt werden, (3) instituti-

- onalisierte Verfahren zur Evaluierung des GSCS. Den minder erfolgreichen GSCSs mangelt es an diesen institutionellen Eigenschaften.
- 9. In Bezug auf die Erfolgsdimension "finanzielle Nachhaltigkeit" kommt es darauf an, dass GSCSs (1) eine Vielzahl denkbarer Finanzierungsmöglichkeiten miteinander kombinieren, um sich so eine diversifizierte Finanzierungsgrundlage zu schaffen. Dabei kommt es insbesondere auch darauf an, den eigenen Standard bzw. das eigene Zertifikat zu vermarkten. Dies erscheint (2) seinerseits dann leichter möglich, wenn der eigene Standard bzw. das eigene Zertifikat für den Endverbraucher sichtbar wird. Jedenfalls sind dies die Finanzierungsquellen, welche die finanziell erfolgreicheren GSCSs GRI, ISO14, MSC, FLO und FSC von den weniger erfolgreichen GSCSs EITI, VPI und KPCS unterscheiden.
- 10. Um die erfolgsversprechenden institutionellen Eigenschaften, die in (4) – (9) zusammengefasst sind, umzusetzen, sollte von der BGR geförderte mineralische Zertifizierung wie Certified Trading Chains (CTC) oder der Regional Certification Mechanism (RCM) die Unterstützung der International Conference on the Great Lakes Region (ICGLR) weiter nutzen, um nationalstaatliche Regierungen und nicht-staatliche Stakeholder (private Unternehmen und zivilgesellschaftliche Gruppierungen) gleichermaßen in eine multi-stakeholder Organisation einzubinden. Die ICGLR ist hierbei entscheidend, da sie der Schlüssel zum System der OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas ist.

Executive Summary

- The objective of the project at hand is to identify the institutional characteristics that condition the success of so called Global Standards and Certification Schemes (GSCSs).
- 2. In the context of GSCSs, the concept of success is complex. In order to account for this complexity, the project draws on a multidimensional concept of success. Accordingly, the success of GSCSs is assessed according to its effectiveness, legitimacy and efficiency. Within effectiveness, we distinguish between compliance and impact, within legitimacy between procedural and substantive legitimacy and within efficiency between flexible adaptation and the financial sustainability of the GSCS.
- 3. According to a comprehensive expert survey, the eight GSCSs in the focus of the project are all assessed rather positively in regards to their success. Nevertheless, on the distinct dimensions, their respective success is mostly evaluated quite differently. These differences can be traced back to their institutional characteristics. Specific institutional characteristics favor or stall the success of the investigated GSCSs on the respective success dimension.
- 4. In regards to the dimension of "compliance", the institutional design of the GSCSs' systems of conformity assessment is decisive for success. Here, it is essential that this system of conformity assessment is built on third parties that are largely independent of the central standard setting body. Accordingly, the more successful GSCSs – FLO, ISO14, MSC, and FSC - draw on (1) auditing by independent third parties which (2) in turn, themselves are accredited by independent third parties; (3) the actual monitoring of compliance is also conducted by third parties that carry out regular, onsite inspections ("police patrols"); and (4) independent third parties also engage in dispute-settlement in the case a dispute arises concerning alleged nonconformity. (5) The respective means of enforcement of the GSCS in the case of nonconformity, however, are not particularly decisive for compliance. In most cases, it is sufficient for assuring compliance if the GSCS can withdraw privileges such as the usage of the certificate. The

- less successful GSCSs GRI, KPCS, VPI, and EITI lack these institutional characteristics.
- 5. In regards to the dimension of "impact" it is decisive for success that GSCSs draw on stringent and flexible standards that remain incentive-compatible. In order to achieve this the more successful GSCSs FLO, GRI, and FSC install standards which (1) complement process standards with performance standards or standards of origin; (2) combine minimum standards with progress and maximum standards; (3) define standards as precisely measurable rules; (4) are context-specific; and (5) complement mere reputational incentives with legal incentives and/or price premiums. The less successful GSCSs MSC, VPI, and EITI lack these institutional characteristics.
- 6. In regards to the dimension of "procedural legitimacy" a comparatively hierarchical organizational structure in which a board of directors has extensive authority in decision-making and, at the same time, all relevant stakeholders are consulted openly in the process of decision-making, turns out to be decisive for success. The most successful GSCSs in terms of their procedural legitimacy - GRI, ISO14, and FSC - with only minor deviations - display (1) a multi-stakeholder membership structure; (2) a federal and/or corporatist mode of representation of this multi-stakeholder membership; (3) a mode of installing the GSCS board of directors dominated by the multi-stakeholder membership; and (4) stakeholder consultation that is open for all. But they also have (5) a board of directors that can make central decisions on the standard on its own or merely needs to win the majority of the GSCSs members in the process. The less successful GSCSs - MSC, KPCS, FLO, and VPI - lack these institutional characteristics.
- 7. In regards to the dimension of "substantive legitimacy" of the respective standard, the institutionalization of regular evaluation and revision of the GSCS standards based on technical expertise is decisive for success. Accordingly, the more successful GSCSs ISO14, FSC, and GRI have (1) institutionalized procedures for evaluating their standards; (2) open procedures for initiating revision of their standards allowing also stakeholders' input next to members and management; (3) institutionalized procedures that secure that the expertise of their stakeholders and autonomous

- experts are heard when developing standards; in order for (4) the standard to correspond to the current scientific state-of-the-art. Those GSCSs that lack these institutional characteristics are among the less successful GSCSs within the sample of cases.
- 8. In regards to the dimension of "institutional flexibility", it is decisive for success that the GSCS has a comparatively hierarchical organizational structure with a strong secretariat and a strong board of directors but, at the same time, also mandates regular evaluation of the organizational architecture. Accordingly, the more successful GSCSs - GRI, FSC, and MSC - have (1) a secretariat authorized not only administrative, but also substantive tasks; as well as (2) a board of directors that enjoys the autonomy of making decisions on the standard more or less single handedly (or only needs to evoke a majority vote among the GSCS members). Furthermore, the investigated GSCSs that are evaluated particularly well in terms of their ability to adapt flexibly to change also have (3) institutionalized procedures for evaluating the GSCS. The less successful GSCSs lack these institutional characteristics.
- 9. In regards to the dimension of "financial sustainability" it is decisive for success, that GSCSs (1) combine a number of possible ways of financing in order to create a diversified financial base. In doing so, it is particularly decisive to dedicate special attention to generating revenues by way of marketing their own standard respectively their own certificate. This, in turn, (2) appears to be more likely achievable in the case the GSCS standard respectively the GSCS certificate is visible to consumers. In any case, these are the sources of financing that distinguish the GSCSs that are more successful in financial respect GRI, ISO14, MSC, FLO, and FSC from the lesser successful GSCSs EITI, VPI, and KPCS.

10. In order to implement the institutional configurations that promise success as summarized in (4) – (9) the BGR mineral certification programs, notably Certified Trading Chains (CTC) and the Regional Certification Mechanism (RCM) should make further use of the support of the International Conference on the Great Lakes Region (ICGLR) to tie in national governments and non-state stakeholders (private businesses and civil society), to equal parts, in a multi-stakeholder organization. The ICGLR is decisive in this respect because it is the key to the framework of the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas.

Introduction

In certain areas of the world, mineral extraction has been, in parts, related to cases of armed conflict, social grievances and environmental degradation. Grievances of this kind especially afflict developing countries with high natural resource abundance often lacking the state capacity to effectively manage lurking challenges of the sector. While resource rich developing countries need to sustain mineral extraction because they often are highly dependent on the revenues accrued from mineral exports, industrialized countries - themselves often lacking a notable resource base on their territories - are dependent on natural resource imports. As both sides of the supply chain are likely to have an interest in sustainably sourced resources, a global solution suggests itself. This is where global governance by standards and certification takes a foothold in the mineral resource sector.

Sub Saharan Africa is one of the world's most blessed regions regarding its natural resource abundance. Many African countries, particularly in the South of the continent, such as Botswana, South Africa, or Namibia have managed to use their mineral resource production to build a sturdy economy and range among upper middle income countries1. Other Sub Saharan African countries, however, have not been able to tap the sector for development and suffer conflict, corruption, social grievances and environmental degradation stalling development and locking vast areas of the continent in severe poverty. The region around the Great Lakes in central Africa is a prominent example of a region blessed with natural resources but with alarming records of violent conflict and persistent poverty². The natural resource sector and particularly its illegal exploitation is ascribed a central role as a source of instability in the Great Lakes Region³.

German Development Cooperation, notably the German Federal Institute for Geosciences and Natural Resources (BGR) and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) is involved in a number of projects with the overall objective of contributing to peace, political stability and development in

the region⁴. The BGR has been supporting ongoing efforts to introduce sustainability standards by way of certification for gold and the 3T's – tin, tungsten and tantalum - in the mineral resource sectors of Rwanda, DRC and other countries around the Great Lakes in central Africa. BGR is intent to install institutional structures that warrant long-term success in the further development and putting into practice of the piloted certification systems, most notably the project Certified Trading Chains (CTC) and the Regional Certification Mechanism (RCM).

To identify institutional structures which are associated with long-term success the BGR commissioned the Ludwig-Maximilians-Universität München (LMU Munich) to analyze other Global Standards and Certification Schemes (GSCSs) operating in the field of global sustainability governance in order to learn from the success stories among them. By studying GSCSs such as the Forest Stewardship Council (FSC), the Global Reporting Initiative (GRI), or the Kimberley Process Certification Scheme (KPCS) the LMU research project aims at singling out their institutional design characteristics for success. To facilitate the transfer of insights to mineral certification programs such as CTC and RCM the project focuses on GSCSs with the objective of enhancing social and environmental sustainability in different natural resource sectors. The cases selected for in-depth case studies are – in alphabetical order - the Extractive Industries Transparency Initiative (EITI) for disclosure of financial flows in primarily oil and gas, the Fairtrade Labeling Organizations International (FLO) in fair trade, Forest Stewardship Council for sustainable forestry, the Global Reporting Initiative for sustainability reporting, the International Organization for Standardization's International Standard 14001:2004 Environmental Management Systems (ISO14), the Kimberley Process Certification Scheme for trade regulation in the context of conflict diamonds, the Marine Stewardship Council (MSC) for sustainable ocean-caught fishing, and the Voluntary Principles for Security and Human Rights Initiative (VPI) in the mineral resource sector. The selected GSCSs focus on sustainability issues relating either to peace and security as in the context of KPCS, EITI, and VPI, or to environmental issues as in FSC, MSC, ISO14, GRI, or to development as in FLO. And they were all established between 1993 and 2003, thus allowing - ten to twenty years after their inception – to assess their success or failure and to shed light on why some of them are more success-

¹⁾ USGS 2010: Botswana, 5.1; Namibia, 32.1; South Africa, 37.1; The World Bank: Africa Development Indicators

²⁾ Heidelberg Institute for International Conflict Research, Conflict Barometer 2010: 23; The World Bank: Africa Development Indicators

³⁾ ICGLR Dar-Es-Salaam Declaration 2004: 2, 5

http://www.bgr.bund.de/EN/Themen/Min_rohstoffe/CTC/Home/CTC_ node_en.html (October 29, 2012)

11/2009 – 07/2010	08/2010 - 04/2011	05/2011 – 01/2012	02/2012 – 10/2012
Developing the frame- work for the comparative assessment of GSCS institutional design char- acteristics	Assessing the institu- tional design charac- teristics of the selected GSCSs	Determining the success of the selected GSCSs in terms of effective- ness, legitimacy and efficiency	Identifying institutional design characteristics for GSCS success

Table 1: Project outline

ful in (contributing to) solving the problems they were made for than others.

The project began in November 2009 and the research was completed in October 2012. It is structured in four stages each documented in a report. The project stages are outlined in the table 1.

In the first project stage we developed an analytical framework theoretically comprising the institutional design characteristics of GSCSs. In the resulting report we introduced these institutional design characteristics and developed draft propositions on their expected relation to GSCS success/failure. In the second project stage we then analyzed the eight GSCSs of the sample empirically with regard to the institutional design characteristics of the analytical framework. The second report thus offers a comprehensive assessment of the institutional design of eight GSCSs. In the third project stage we turned to the assessment of the success/failure of the selected GSCSs through a comprehensive expert survey. The third report thus offers in three dimensions - i.e. effectiveness, legitimacy, efficiency - a comprehensive assessment of the success or failure of the selected GSCSs.

The report at hand constitutes the final report rounding up the fourth project stage and consequently, the research project as a whole. In this report we bring the two data sets, i.e. the institutional design characteristics and the levels of success/failure attributed to the different GSCSs, together and relate them to one another. By doing so, the data helps us to identify the institutional design characteristics that are associated with GSCS success or failure. This final report is structured as follows: In a first step we summarize how we conceptualized GSCS success or failure theoretically. The second step is then devoted to the discussion of the empirical assessment of GSCS success or failure. In a third step we then identify the institutional design characteristics that are associated with GSCS success or failure and which serve as a basis for our recommendations. In a last step we finally develop scenarios for the institutional design of CTC and RCM.

Conceptualizing GSCSs' Success or Failure

For the assessment of the success or failure of the selected GSCSs we draw on an expert survey which relies on a multidimensional concept of success or failure. This concept draws on three pillars of success or failure: effectiveness, legitimacy, and efficiency.

1. One important pillar of GSCS success is effectiveness. GSCSs without effects can hardly be considered successful. Effectiveness implies that due to the GSCS's regulation, target actors change their behavior to the better. This does not necessarily mean that the problem the GSCS tries to address is actually solved, but it means that counterfactually the situation would be worse without the behavioral change that can be attributed to the GSCS. If a speed limit on highways of 120 km/h leads to a reduction of car accidents it can be considered effective even if the number of accidents is still considered too high. Yet, the more a GSCS is able to bring about behavioral change that leads to problem solving the more effective it can be considered. Speed limits that lead to satisfactorily low levels of car accidents and thus traffic safety can be considered more effective than speed limits which may reduce car accidents but only on a comparatively high level.

To assess GSCS effectiveness we distinguish two dimensions: compliance and impact. If target actors simply ignore GSCS standards it can hardly be considered effective. If speed limits are ignored by almost all car drivers one can hardly consider the speed limit effective even if the level of car ac-

cidents is low. Thus target actors' compliance with GSCS standards is an important dimension of its effectiveness. Yet, if the standards themselves are not very demanding target actors' compliance does not tell us much about the GSCS's effectiveness. A speed limit of 200 miles per hour on highways may be cited as an example. It would come with high compliance rates but hardly enhance traffic safety. It might not even have an impact on the average speed of cars on highways. This is why impact has to be considered an independent dimension of GSCS effectiveness. Only if GSCS standards have a positive impact on target behavior we can consider it to be effective. In this view, only speed limits have impact if they contribute to traffic safety. However, not all improvements in traffic safety that go along with a more stringent speed limit can be attributed to this speed limit. Car breaks may

have technologically improved and thus caused the lower level of car accidents. This is why GSCS

effectiveness cannot be assessed based on im-

pact only. We can trust in a GSCS's effectiveness

only if impact comes with compliance.

2. Another important pillar of GSCS success is its perceived legitimacy. As this has an impact on their stability GSCSs that are not perceived as legitimate can hardly be regarded successful. Legitimacy implies that the GSCS authority is not questioned by its stakeholders (including the targets). They rather acknowledge the authority of the GSCSs to engage in the generation and implementation of standards in their particular domain. Thus the legitimacy of a speed limit of 50 km/h in cities can be regarded as legitimate to the degree that car drivers as the speed limit's addressees, pedestrians affected by car traffic as potential victims and the general public support and thus voluntarily accept the authority of this speed limit. And contrarily: to the degree that they are unwilling to support and to regard this speed limit as acceptable in which case it cannot be seen as legitimate.

In our assessment of GSCS legitimacy we distinguish two dimensions: substantive and procedural legitimacy. The substantive legitimacy of the GSCS standard is measured by the level of stake-

holder support for the GSCS standards themselves. In our example it is thus the level of support for specific speed limits such as the one of 50 km/h in cities. The perceived legitimacy of a substantive standard can be distinguished from the perceived legitimacy of its standard-setting procedures. The perceived legitimacy of speed limits may not only depend on the set speed limit but also on the perceived legitimacy of how speed limits are set; whether they are set by public authorities or the car-drivers association or the biggest car manufacturer, for instance. A truly successful GSCS should be able to draw on both the legitimacy of its substantive standards and the legitimacy of its standard setting procedures. This is why our assessment of GSCS success will take both legitimacy dimensions - substantive and procedural into consideration.

3. A third pillar of a GSCS's success is its organizational efficiency and sustainability. If a GSCS cannot draw on an efficient administration that is able to work on a sustainable basis it can hardly be judged successful. In general terms, efficiency means minimal effort for maximum performance. Thus with regard to the example of car traffic the efficiency of a speed limit of 50 km/h entails that there is no instrument that requires less effort -technologicallyimproved carbreaks, for instance to ensure the same level of traffic safety. Yet, more broadly conceived, efficiency could also mean that speed limits are adjusted in a speedy manner to changing circumstances such as technologically improved car breaks and that the traffic authorities ensure traffic safety with an efficient administration which relies on sustainable finances.

In our assessment of GSCS efficiency we focus on two dimensions: flexible adaptation and financial efficiency. The dimension of flexible adaptation points to the fact that GSCSs which are unable to adjust their standards to changing circumstances are unlikely to be efficient. To provide efficient solutions to problems requires – we assume – that GSCSs are able to adjust their standards and even their organization to changing circumstances in a speedy manner. In this dimension efficiency me-

Effectiveness		Legitimacy		Efficiency	
Compliance	Impact	Procedural	Substantive	Adaptation	Finances

Table 2: Six dimensions of success

ans that speed limits are adjusted if, for instance, technologically improved car breaks allow so or a sudden rise in car traffic requires to. The dimension of financial efficiency, by contrast, implies, that successful GSCSs should be able to collect sufficient financial resources to fulfill its tasks on a sustainable basis. The public authority responsible for traffic security should be able to draw on financial resources so as to pay the salary of the policemen it needs to monitor car drivers' compliance with speed limits. In any case, our assessment of GSCS success takes both efficiency dimensions – flexible adaptation and financial efficiency – into account.

Thus, when assessing the selected GSCSs, we draw on a multidimensional concept built on three pillars of success: effectiveness, legitimacy and efficiency. Each pillar will be assessed in two independent, but interconnected dimensions (see table 2). When assessing a GSCS's effectiveness we look at target actors' compliance with GSCS standards and we evaluate whether standards have an impact on target actors' behavior. When measuring a GSCS's perceived legitimacy we look at the perceived legitimacy of the GSCS as a standard setting organization and the GSCS's substantive standards. Finally, to assess a GSCS's organizational efficiency we assess their ability to adapt standards flexibly to changes in their environment as well as their ability to collect financial resources.

Assessing GSCSs' Success or Failure

We conducted an expert survey to come to a comparable assessment of the selected GSCSs. A number of academic experts were asked to respond to a questionnaire giving their evaluation of the particular GSCS they have specific expertise on. It is thus the experts (not us!) that assess whether, and to what degree, the respective GSCS can be regarded as effective, is perceived as legitimate and can be seen as efficient. Outsourcing the assessment of the GSCS success to experts assures the necessary neutrality on our behalf when relating the institutional characteristics to the GSCS respective levels of success. Subsequently, there is no risk that the propositions we initially spelled out in accordance with the GSCS ins-

titutional design characteristics influence the assessment of the GSCS success. The survey questionnaire which follows strict methodological requirements for questionnaires in the social sciences asks experts to indicate the level of agreement with effectiveness-, legitimacy-, and efficiency-related statements (such as the statement that users' compliance with the requirements of the GSCS standard is satisfactory). We chose a so called Likert-scale comprising five levels of agreement ranging from "fully disagree" (1) to "fully agree" (5). We are well aware of the risk of the medium category (3) of the scale being misused as a means to evade a definitive answer. Yet, we confide in the proficiency of the experts to utilize this category only when it really applies. In case of uncertainty on behalf of the expert a "don't know" option is given. At the end of the questionnaire there is also room for comments and amendments. In order to ensure comparability of the results all questionnaires are identical in content and structure. Only the names of the respective GSCSs were replaced so that FSC experts were confronted with a questionnaire whose questions directly refer to the FSC while questions for MSC experts directly referred to the MSC. While the original questionnaire the experts were asked to fill in consisted of 20 success/failure related statements, in the end we filtered the nine most relevant questions out of 20 to assess the effectiveness, legitimacy, and efficiency of the selected GSCSs. We selected the following statements because they either directly point at the nuance of success we want to tease out or, taken together, cover the relevant notions of the dimension in question. Table 3 gives an overview of which questions were used to measure GSCS success or failure.

Based on expert responses to the questionnaire⁵ we assessed the success/failure of the eight selected GSCS and identified the dimensions in which the selected GSCSs are particularly successful or particularly unsuccessful. For this assessment we first calculated for each GSCS the average level of agreement experts gave to each and every of our success/failure-related statements of the questionnaire. This average indicates how experts judge the success of the respective GSCS in this particular regard. For an overview of the results at a glance see table 4.

⁵⁾ The questionnaire was sent to about 30 experts per GSCS, i.e. overall about 240 experts. The experts of the respective GSCSs were chosen from academia on the basis of measurable merits in form of peer-reviewed journal articles or other peer-reviewed publications justifying their expertise on the respective GSCS. As academics are not tied to a specific institution other than their university we assume that they are generally independent in their judgments (as opposed to practitioners who often have an agenda to pursue possibly influencing their responses). As response rates were rather good we are able to draw on average on the assessment of ten experts per GSCS.

Effectiveness	Legitimacy	Efficiency
Compliance:	Procedural:	Adaptation:
(1) Generally, users' compliance with the requirements of the GSCS standard is satisfactory.	(4) Addressees of the GSCS perceive its procedures as legitimate.	(6) The decision-making procedures of the GSCS are speedy and efficient.
		(7) The GSCS is able to adapt flexibly to changes in its environment.
Impact:	Substantive:	Financial:
(2) When applied, the GSCS standard is fulfilling its central objectives.	(5) Addressees of the GSCS perceive its standard as legitimate.	(8) The GSCS is capable of collecting sufficient financial resources.
(3) When applied, the GSCS standard makes a positive difference on the ground.		(9) The GSCS has managed to develop a sustainable financial basis.

Table 3: Statements from the questionnaire

	Effectiveness		Legiti	Legitimacy		ency
	Compliance	Impact	Procedural	Substantive	Adaptation	Financial
GRI	2.89	3.57	4.25	4.25	3.56	4.10
ISO14	3.73	3.50	3.86	4.36	2.92	3.90
FSC	3.22	3.56	3.67	4.33	3.28	3.44
FLO	3.78	3.72	3.50	3.50	3.08	3.57
MSC	3.31	3.15	3.54	3.62	3.11	3.73
KPCS	2.60	3.40	3.50	3.70	2.35	2.58
VPI	2.50	2.92	3.25	3.00	2.90	3.20
EITI	2.29	2.57	3.20	3.60	2.93	3.23

Table 4: Assessment of GSCSs' success

Across the selected GSCSs we generally see good levels of success. Our experts attributed satisfactory success rates to all the eight GSCSs which we selected for our analysis across the six dimensions. On the five-point scale between a fully satisfactory record (5.00) and a fully non-satisfactory record (1.00) they score between 2.29 (EITI on compliance) and

4.36 (ISO14 on standard legitimacy) and thus mostly around the arithmetic average of 3.00. Yet, in all six dimensions of success the GSCSs in our sample also display remarkable differences. In the following we mainly use these differences to single out GSCS institutional design features which are associated with success.

Identifying Institutional Characteristics for Success

The aim of this study is to identify institutional characteristics that are associated with the success or failure of GSCSs. We assume that different institutional characteristics are relevant for specific dimensions of GSCS success or failure. We thus discuss these characteristics for each dimension separately.

Effectiveness: Compliance

Across the selected GSCSs we generally see good levels of compliance. Our experts attributed satisfactory compliance rates to all the eight GSCSs which we selected for our analysis. On the five-point scale between a fully satisfactory compliance record (5.00) and a fully non-satisfactory compliance record (1.00) they score between 2.29 and 3.78 and thus mostly around the arithmetic average of 3.00. Despite interesting differences, according to our experts none of the studied GSCSs has an excellent compliance record (above 4.00). At the same time, our experts also claim that none of the GSCSs under investigation has a very poor compliance record (below 2.00). Yet, there are also interesting differences between the GSCSs. FLO and ISO14 clearly score above average (3.78 and 3.73); and also the FSC and MSC are attested good compliance records (3.31 and 3.22), while EITI (2.29), VPI (2.50), KPCS (2.60), and GRI (2.89) are seen as having poorer compliance records (see table 5 below).

Which institutional characteristics are associated with GSCS success? We expect that in particular the design of their conformity assessment is most relevant for target compliance. Five characteristics of GSCS systems of conformity assessment are assumed to be relevant for explaining why FLO, ISO14, MSC, and FSC are more successful in this respect than GRI, KPCS, VPI, and EITI:

 Auditing: Differences among GSCSs with regard to how the auditing process is organized may explain differences in GSCS compliance records. Three types of auditing can be distinguished. (a) The auditing can be done by the global standard setting institution itself. In our sample the GRI, VPI and EITI are cases in point. (b) The auditing may be a task of a regional branch of the global standard setter. Among the selected GSCS the KPCS is the only example of this. (c) Finally, a third party which is largely independent of the global standard setter may be given the task of auditing. This is the case with FLO, ISO14, MSC, and FSC.

- Accreditation: The accreditation process differs from GSCS to GSCS and might thus explain differences in their compliance records. Depending on whether the accreditation is done by (a) the global standard setting institution itself; (b) a regional branch of the global standard setter; (c) a third party which is largely independent of the global standard setter, three types are to be distinguished. In our sample, EITI is an example for the first, KPCS for the second type and FLO, ISO14, MSC, and FSC are examples for the third type.
- Monitoring: While almost all GSCSs monitor targets' compliance in one way or another, the type of monitoring differs from GSCS to GSCS and might thus explain why some have better compliance records than others. We distinguish between (a) monitoring through targets' self-reporting, (b) monitoring by "police patrol", i.e. regular inspections by third parties given the task to do so; (c) monitoring by fire alarms, i.e. verification procedures that are activated if by-standards provide non-compliance information. While in our sample FLO, ISO14, MSC, and FSC can also rely on monitoring by "police patrols", GRI, KPCS, VPI, and EITI mostly rely on self-reporting and/or "fire alarms".
- settlement: Also with regard to dispute settlement the selected GSCSs differ quite substantively. For the explanation of the variance in their compliance records the distinction between (a) bargaining among the disputing parties themselves; (b) mediation by a politically involved third party; and (c) adjudication by a politically independent court-like third party seems to be relevant. In our sample FSC and ISO14 draw on a judicialized third party of last resort in dispute settlement, while FLO and MSC authorize political third parties to settle disputes; KPCS, VPI, and EITI trust in direct, political bargaining among the disputants themselves in the context of dispute settlement.

• Enforcement: The ability to employ sanctions in order to enforce GSCS standards reliably is often seen as the core to GSCS targets' compliance. (a) Yet, only few GSCSs can actually employ sanctions in cases of non-compliance. In our sample only the KPCS has the authority to do so. (b) Most GSCSs either have to trust in the withdrawal of membership and thus the withdrawal of their certificate to "enforce" compliance. This is the case with FLO, ISO14, MSC, FSC, VPI, and EITI. (c) Some GSCSs even do without any means of en-

Which institutional characteristics of their conformity assessment are associated with high levels of compliance? With regard to compliance, what are the institutional characteristics for success?

sample the GRI is a case in point.

forcement – beyond the loss of reputation targets

may suffer if they violate GSCS standards. In our

 Auditing: To begin with, third party auditing is strongly associated with good compliance records.
 The more successful GSCSs in our sample – FLO, ISO14, MSC, and FSC – share the institutional

- characteristic of engaging an independent third party in auditing compliance against their standard. Contrarily, all GSCSs without exception that score below average, i.e. the GRI, KPCS, VPI, and EITI do not draw on third party auditing. They rather involve the standard setting body in auditing, either on a global level as in the case of EITI, GRI and VPI, or on a regional level as in the case of the KPCS.
- Accreditation: Similarly, third party accreditation appears to be crucial for compliance, as well. Notably, the same four schemes that provide for third party auditing also provide for accreditation by an external independent agency of the body conducting the audit. Again, only the schemes that display third party accreditation are evaluated highly in regards to compliance. On the lower end of the scale, those four schemes that lack third party auditing also lack third party accreditation. The GRI and the VPI do not envisage accreditation as part of their regulatory system, while the KPCS and the EITI attribute accreditation to the standard setting bodies, rather than independent third parties.

	1. auditing actors	2. accredita- tion	3. modes of monitoring	4. dispute settlement	5. enforce- ment	compliance
FLO	third party	third party	police patrol/ fire-alarm	political	withdrawal	3.78
ISO14	third party	third party	police patrol/ fire-alarm/ self-reporting	judicial	withdrawal	3.73
MSC	third party	third party	police patrol	political	withdrawal	3.31
FSC	third party	third party	police patrol	judicial	withdrawal	3.22
GRI	global standard setter	-	self-reporting	-	-	2.89
KPCS	regional standard setter	regional standard setter	fire alarm/ self-reporting	bargaining among disputants	sanctions	2.60
VPI	global standard setter	-	fire alarm/ self-reporting	bargaining among disputants	withdrawal	2.50
EITI	global standard setter	global standard setter	police patrol/ self-reporting	bargaining among disputants	withdrawal	2.29

Table 5: Institutional design and compliance

- Monitoring: From the GSCSs in our sample we also see a strong association of monitoring by "police patrol" with good compliance records. All the GSCSs that are evaluated well, i.e. the FLO, ISO14, MSC, and FSC monitor not only on the basis of self reporting and "fire alarms", but also by means of "police patrol", i.e. on-site inspections on regular intervals. This feature is absent among all less successful schemes but the EITI. While certainly more cost-effective, monitoring by a system of "fire-alarm" or self-reporting does come with good compliance. Yet, our cases also seem to suggest that it can be a good complement to "police patrol" as seen in the FLO and the ISO14.
- Dispute settlement: In our sample, the GSCSs with good compliance records FLO, ISO14, MSC, FSC are associated with dispute-settlement procedures which involve third parties. Markedly, the GSCSs with poorer levels of compliance KPCS, VPI, EITI rely on dispute settlement by bargaining among the disputants themselves. Interestingly, third parties need not be politically independent, judicial (i.e. court-like) bodies as in FSC and ISO14. Dispute settlement by neutral, political bodies as provided for in FLO and MSC seems to be equally good in supporting targets' compliance with GSCS standards.
- Enforcement: Finally, turning to the modes of enforcement results are not as clear as with regard to auditing, accreditation, monitoring, and dispute settlement. Remarkably, the only GSCS with the authority to employ "real" sanctions the KPCS does not produce the best compliance record. This suggests that enforcement by way of sanctions is not as important for compliance as commonly assumed. The good compliance records of

FLO, ISO14, MSC, and FSC suggest that if other elements of the system of conformity assessment are well designed enforcement through reputational sanctions based on withdrawal of privileges seem to allow for satisfactory compliance records. Yet, if other elements of the system of conformity assessment are not well designed, enforcement based on the withdrawal of privileges is unlikely to bring good compliance records. The comparatively weak compliance records of GRI, VPI, and EITI bring this point to the fore.

The above analysis of GSCSs' institutional characteristics for compliance leads to very clear recommendations, because the four most successful GSCSs in regards to compliance, i.e. the FLO, ISO14, MSC, and FSC, have similarly designed systems of conformity assessment which clearly set them apart from the four less successful GSCSs, i.e. GRI, KPCS, VPI, and EITI. The "successful four" have institutionalized a system of conformity assessment which is largely independent from the main standard setting organization: it relies (1) on independent third parties for auditing compliance which (2) themselves are accredited by independent third parties; it incorporates (3) third party monitoring through onsite inspections ("police patrol") and (4) allows third parties to engage in dispute settlement, while (5) withdrawing privileges is the main means of enforcement. None of the four GSCSs on the lower half of the compliance scale has these institutional characteristics. Their systems of conformity assessment do not draw on independent third parties for auditing, accreditation, monitoring, and dispute settlement. In these GSCSs (1) auditing and (2) accreditation is mostly done by the standard setting bodies themselves, (3) monitoring largely relies on self-reporting and/or private complaints ("fire alarm") while (4) dispute settlement remains a prerogative of

do's	do not's
(1) auditing: via third party	auditing: via standard setter
(2) accreditation: via third party	accreditation: via standard setter
(3) monitoring: via on-site inspections ("police patrol")	monitoring: via self-reporting
(4) dispute-settlement: via third party	dispute-settlement: via bargaining among disputants
(5) enforcement: via withdrawal of privileges	enforcement: via sanctions

Table 5.1: Do's and do not's for compliance

the disputing parties themselves. In our sample, only the way they enforce their standards is similar to the more successful GSCSs. Thus a system of conformity assessment relying on third parties that are independent from the main standard setting body is key for GSCSs' success in regards to compliance.

Effectiveness: Impact

As with regard to compliance the selected GSCSs are also doing fine with regard to their impact on the ground. Our experts attributed satisfactory impact to all the eight GSCSs which we selected for the analysis. On the five-point scale between a fully satisfactory impact (5.00) and a fully non-satisfactory impact (1.00) they score between 2.57 and 3.72 and thus mostly around the arithmetic average of 3.00. None of the studied GSCSs has a very strong impact on the situation addressed by its standards (above 4.00), but at the same time, our experts also assert that none of the GSCSs under investigation is simply a window dressing exercise (below 2.00). Yet, despite their overall good impact, there are also interesting differences between the studied GSCSs. While FLO which was doing best with regard to compliance is also the best GSCS in our sample with regard to impact, the overall impact order looks somewhat different from the compliance order, thus underscoring that the two dimensions are independent of each other. Besides FLO (3.72), the GRI (3.57), FSC (3.56), and ISO14 (3.50) score comparatively high on impact. Moreover, while the impact of the KPCS (3.40) and of the MSC (3.15) is still satisfactory, according to our experts, the impact factors of VPI (2.92) and EITI (2.57) are comparatively low (see table 6 below).

Which institutional characteristics are associated with GSCS success? What are the institutional characteristics that separate the higher impact GSCSs from lower impact GSCSs? We assume that the institutional characteristics related to the stringency of GSCS standards on the one hand and clients' incentives to join the GSCS on the other are relevant here. More specifically, we expect that the following five institutional characteristics can at least partially account for why FLO, GRI, FSC, and ISO14 score higher on impact than KPCS, MSC, VPI, and EITI:

 Subject of standard: Differences of the subject of the GSCS standard may have an effect on the impact of the GSCSs' operations on its targets. Three different types of standards can be identified

among GSCSs in regards to their subject. (a) The GSCS standard can require changes in the internal processes of their targets. The ISO 14001:2004 is the most prominent example of a GSCS standard that explicitly only requires procedural change and categorically excludes performance levels. In our sample, GRI, VPI, and EITI are also cases with only a process-orientated standard. (b) The subject of the GSCS standard can also be performance levels. The FSC is a case in point here but also FLO and MSC have performance-based standards. (c) Finally, origin can also be the subject of the GSCS standard. The KP certificates primarily declare the origin of the diamonds. FLO and FSC also include disclosure of origin in their certificates.

- Ambition of standard: The GSCS standards also differ in regards to their level of ambition. Differing levels of ambition are also likely to play a role in regards to the GSCS impact. (a) Some GSCS standards are highly ambitious and are even considered "gold standards" in their field of operation. FLO and FSC standards are examples of "gold standards" in fair trade respectively sustainable forestry management. (b) Contrarily, other GSCSs issue certificates for only minimum levels of behavioral change. VPI and KPCS, for instance, only apply a minimum standard. (c) Alternatively or in addition to a maximum or a minimum standard, GSCSs standards may also entail progress requirements on the way to reaching increasingly demanding behavioral standards. Progress requirements are included in all GSCS standards of our sample but KPCS and VPI.
- Precision of standard: The level of precision of the GSCS standard is commonly conceived as relevant for impact. GSCSs standards can either be spelled out with high precision equaling (a) measurable rules, or be held on a slightly more general note rather like (b) specific norms, (c) or can even constitute merely general principles with a very low level of precision. In our sample, FLO, GRI, FSC, ISO14, and EITI spell out their standard to the extent of precision equaling measurable rules while KPCS and MSC rather apply specific norms and VPI only general principles.
- Context-sensitivity of standard: GSCSs also differ in regards to the context-sensitivity of their standards. There are context-sensitive standards that consider (a) geographic or (b) sector speci-

	1. subject of standard	2. ambition	3. precision	4. context- sensitivity	5. incentives	impact
FLO	process/ performance/ origin	minimum/ progress/ maximum	rules	geographic/ sector specifics	reputational/ price premium	3.72
GRI	process	minimum/ progress/ maximum	rules	sector specifics	reputational/ legal	3.57
FSC	process/ performance/ origin	minimum/ progress/ maximum	rules	geographic specifics	reputational/ price premi- um/legal	3.56
ISO14	process	progress	rules	global	reputational/ legal	3.50
KPCS	process/ origin	minimum	norms	global	reputational/ legal	3.40
MSC	process/ performance	minimum/ progress	norms	global	reputational/ price premi- um	3.15
VPI	process	minimum	principles	global	reputational	2.92
EITI	process	minimum/ progress	rules	geographic specifics	reputational/ legal	2.57

Table 6: Institutional design and impact

fics. (c) Again other GSCSs do not acknowledge context specifics in their standards but rather only have one universal standard developed for global applicability. The standards of FLO, FSC, and EITI account for geographic specifics. The FLO also accounts for sector specifics of various products such as coffee, bananas or gold somewhat similar to the GRI sector specifics of airport operations, financial services or mining and metals. ISO14, KPCS, MSC, and VPI are examples of global GSCS standards.

• Incentives to join: Finally, we also look at the incentives the GSCS is able to provide for attracting clients to join the GSCSs as this institutional design characteristic is expected to influence the GSCS impact. (a) Some GSCSs, like FLO, FSC, or MSC include price premiums as an incentive. (b) Other GSCSs, like GRI, FSC, ISO14, KPCS, or EITI also offer some kind of legal incentive for joining the scheme. (c) While all GSCSs attract their clients with incentives promising reputational benefits, in our sample, only VPI relies solely on reputational incentives to lure its targets to take on its objective.

Which GSCS institutional characteristics are associated with high impact scores? What are the institutional characteristics for GSCS success, with regard to impact?

Subject of standard: It is surprising that, in our sample of GSCSs, we do not find a clear relation between a standards' subject – whether it relates to process, performance or origin - and GSCS impact. The cases neither support many scholars' and practitioners' argument for including performance levels in the requirements of the standard as they believe only this will bring about high impact. Nor do they support the opposing view on the benefits of focusing only on procedural requirements. Our cases rather suggest that all three subjects of a standard - process, performance, and origin - may lead to high levels of impact and thus success, but can also come with low impact levels and thus failure. Nevertheless, all GSCSs in our sample without exception include process requirements in their standards. This suggests that the inclusion of process standards has become a best practice in GSCSs with at least some impact. Whether it helps GSCS impact if process

- standards are complemented by performance standards or standards concerning product origin seems to be highly context dependent. While the good impact of the FLO and FSC standards seems to support this conjecture, GRI and ISO14 standards demonstrate that GSCSs relying on process standards only, may do equally well. The fact, however, that we find VPI and EITI at the lower end of the impact scale may suggest that the risk of low impact is higher when GSCSs rely on process standards only.
- **Ambition:** To put the finger on the kind of ambition of standard that leads to better impact is a difficult task. In principle, a demanding standard is likely to have more impact on its clients' behavior, but at the same time it may undermine clients' willingness to subscribe to the standard. As this circumstance would lead to limited coverage its impact on the ground would be impaired. As the cases in our sample show, the higher impact GSCSs cope with this trade-off by combining minimum standards, progress standards, and maximum standards. Notably, FLO, GRI, and the FSC define a minimum standard facilitating would-be clients' entry into the scheme; they then have a number of progress provisions that enable phased implementation of the standard on the way to reaching the level required by the maximum standard. By contrast, none of the GSCSs on the lower half of our impact scale draws on this combination of standards. Either they simply define minimum standards, as the KPCS and the VPI do, or they combine minimum standards with progress standards, as is the case of EITI and MSC. But either way they do not reach the impact score of GSCSs with a combination of minimum, progress and maximum standards.
- Precision: A similar trade-off as with regard to ambition complicates the choice for or against a highly precise standard. Precise rules may be better in controlling clients' behavior, but for precisely this reason would-be clients might be put-off by precise rules, thus undermining GSCS impact. As the GSCSs in our sample show, precise rules guarantee better impact. All GSCSs evaluated highest here, FLO, GRI, FSC, and ISO14 employ a standard that can be broken down into measurable rules. By contrast, all GSCSs the EITI as sole exception assessed poorer in regards to impact lack measurable rules and either employ only general principles as in the case of the VPI or specific

- norms as in the KPCS and the MSC. Hence, measurable rules appear to be good for GSCS impact.
- Context-sensitivity: The GSCSs in our sample also provide evidence that context sensitive standards are more likely to have good impact than "one size fits all" standards. The GSCSs evaluated among the top three schemes here, the FLO, GRI, and FSC draw on context-specific standards. Context-sensitivity here can imply sector-specific specifications like in the GRI or geographic specifications in national or regional respect as in the FLO and FSC systems. In any case they are associated with higher impact scores. Contrarily, the GSCSs on the lower half of the impact table - ISO14, KPCS, MSC, and VPI, again with the exception EITI - draw on only one global standard expected to be applicable universally irrespective of the specific socio-local context. This strongly suggests that context-sensitivity of GSCS standards is key for good on the ground impact.
- Incentives: There is no clear recommendation on how GSCSs should provide incentives for wouldbe clients to subscribe to their standards. The analysis of the selected GSCSs rather underscores that there is no single best option for providing incentives to join. This is, however, an interesting result in itself. First, contradicting what one might have expected legal incentives or requirements are by no means a guarantee for good impact as the comparatively low impact of EITI demonstrates, nor are they necessary for good impact as the case of FLO underlines. Second, also a price premium does not come automatically with good impact as the MSC underscores, nor is a price premium necessary for good impact as the case of GRI illustrates. Both, legal incentives and price premium incentives can likewise lead to high impact, but they can also likewise fail to support good impact. Nevertheless, it seems safe to say that reputational incentives alone do not suffice for high impact as VPI demonstrates. The poor impact of the VPI suggests that the higher impact GSCSs depend on either legal requirements or a price premium for would-be clients to join complementing merely reputational incentives.

Based on similarities among the higher impact GSCSs – FLO, GRI, FSC – and the differences to the lower impact GSCSs in our sample – especially MSC, VPI, EITI – the analysis leads to the recommendation to follow the institutional characteristics of the "suc-

do's	do not's
(1) subject of standard: process and performance and origin	subject of standard: process only
(2) ambition: minimum and progress and maximum	ambition: minimum only
(3) precision: measurable rules	precision: principles and norms only
(4) context-sensitive standard	only global standard
(5) incentives: reputational and legal and/ or price premiums	incentives: only reputational

Table 6.1: Do's and do not's for impact

cessful three" GSCSs which draw on standards which (1) complement process standards with performance standards or standards of origin, (2) combine minimum standards with progress and maximum standards, (3) define standards as precisely measurable rules, (4) employ context-specific standards, and (5) complement reputational incentives with legal incentives and/or price premiums. By contrast, none of the GSCSs scoring lower on impact follows this recipe for success. Most of them fail to define standards as measurable rules and also do not define maximum standards but, nevertheless, allow for some context sensibility. Thus, for their impact it seems imperative that GSCSs rely on precisely defined stringent standards which nevertheless allow for some flexibility (context sensitivity) and which provide strong incentives for would-be applicants to join.

Procedural Legitimacy

While all six dimensions display overall positive assessments of all GSCSs this is most evident regarding their procedural legitimacy. The expert survey resulted in more than satisfactory assessments of the procedural legitimacy of all eight GSCSs. All eight GSCSs are assessed above the arithmetic average of 3.00. Yet, the level of procedural legitimacy attributed to different GSCSs varies considerably. There is a notable discrepancy between the GRI which is considered by far the most legitimate GSCS (4.25), on the one hand, and EITI and VPI (3.20 respectively 3.25) on the other hand. Even the GSCS directly following the GRI in rank, ISO14, is assessed with 3.86 quite far behind GRI followed suit by FSC, MSC, KPCS, and FLO (3.67, 3.54, 3.50, and 3.50) (see table 7 below).

Which institutional characteristics are associated with GSCS success? Which institutional design characteristics can explain the variance between the GSCSs considered highly legitimate and those coming in behind in terms of procedural legitimacy? We expect the institutional characteristics related to stakeholder inclusion in the GSCSs' decision making procedures to be most relevant for their procedural legitimacy. The following institutional characteristics appear to be the most important here:

- Membership structure: GSCS membership structures are likely to have an impact on their perceived procedural legitimacy. Assuming that three constituencies, generally civil society actors (CS), private businesses and public authorities, may have stakes in what GSCSs are doing we distinguish three membership structures: (a) Rather exclusive GSCSs which build their membership solely on one constituency; (b) GSCSs which are open to civil society and private business, but explicitly exclude public authorities from membership. In our sample FSC and FLO exemplify these GSCSs; and (c) GSCSs which include all three constituencies in their membership structure. In our sample GRI, ISO14, MSC, VPI, EITI, and KPCS are examples for this tripartite membership structure.
- Members' representation: Beyond membership, the way various members are represented within the GSCS governance structures are likely to be relevant for the GSCS procedural legitimacy, as well. It seems to be of particular relevance in how far otherwise disadvantaged groups are given privileges in terms of representation. Three types of GSCSs are to be distinguished: (a) GSCSs such

- as GRI, ISO14, FSC, and FLO with a federal structure giving members, for instance, from developing countries special representation so as to prevent the domination of members from developed countries; (b) GSCSs which mirror a corporatist structure by giving civil society, private business and public authority or other membership constituencies equal representation in their decision making bodies. In our sample, GRI, FSC, FLO, and EITI exemplify this type of membership representation; (c) GSCSs which strictly adhere to the principle of equal representation by its members, thus not granting any privileges of representation. KPCS and VPI are cases in point. GSCSs that have both federal and corporatist modes of members' representation are also quite common among our GSCSs as we see on GRI, FSC, and FLO.
- Final decision-making: The mode of final decision-making is also likely to have an effect on the GSCS procedural legitimacy. Decisions in GSCSs can be made either by (a) near consensus among the members, (b) majority voting among the members, or (c) by board decision. KPCS, FLO, and VPI envisage final decision-making by membership consensus, ISO14 and FSC draw on majority

- voting among members and GRI, MSC, and EITI rely on board decisions.
- Board installment: Almost all GSCSs have a board which takes on some substantive GSCS tasks. We thus expect the mode of installing the board to be relevant for the GSCSs' procedural legitimacy. Three forms of board installment can be distinguished. GSCS boards may be installed: (a) By self-appointment through the (outgoing) board itself, (b) by a mode of appointment via membership groups, or (c) by election of all members each with equal voting power negligent of membership constituencies. The majority of GSCSs in our sample provide for GSCS membership groups to appoint their boards. Only the boards of the MSC and KPCS are appointed by the board itself. Our sample has no examples of a board elected by members irrespective of membership constituencies.
- Stakeholder consultation: Finally, the institutional design characteristic of stakeholder consultation must be taken into account when singling out relevant features for GSCS procedural legitimacy. All GSCSs provide for some kind of stakeholder consultation but they differ in the degree

	1. member- ship structure	2. members' representa- tion	3. final decision- making	4. board installment	5. stakeholder consultation	procedural legitimacy
GRI	CS/business/ public	federal/ corporatist	board decision	membership groups	open to all	4.25
ISO14	CS/business/ public	federal	member voting	membership groups	selected openness	3.86
FSC	CS/business	federal/ corporatist	member voting	membership groups	open to all	3.67
MSC	CS/business/ public	corporatist	board decision	self- appointment	open to all	3.54
KPCS	CS/business/ public	no special	near consensus	self- appointment	restricted	3.50
FLO	CS/business	federal/ corporatist	near consensus	membership groups	open to all	3.50
VPI	CS/business/ public	no special	near consensus	membership groups	restricted	3.25
EITI	CS/business/ public	corporatist	board decision	membership groups	selected openness	3.20

Table 7: Institutional design and procedural legitimacy

of openness. (a) Some GSCSs only grant ad hoc stakeholder participation and display accordingly only restricted stakeholder consultation. Others provide for institutionalized ensured stakeholder consultation. Yet, among the latter there are (b) GSCSs which open up to selected stakeholders only and (c) GSCSs whose procedures are open to all interested parties. In our sample, KPCS and VPI belong to the first category, ISO14 and EITI to the second, and GRI, FSC, MSC, and FLO to the third.

Now, which out of these institutional characteristics are associated with high levels of procedural legitimacy? What are the institutional characteristics for success, with regard to procedural legitimacy?

- Membership structure: In our sample we see no clear correlation between differences in GSCS membership structure and differences in their procedural legitimacy. Nevertheless, as all the GSCSs in our sample score high in terms of procedural legitimacy while none of them has a single-constituency membership structure it supports the conjecture that a multi-stakeholder membership structure is conducive to procedural legitimacy. In fact, our results do suggest that a multi-stakeholder membership has become a GSCS best practice to strengthen their procedural legitimacy. At the same time, our results suggest that it does not matter for their procedural legitimacy whether GSCSs have a tripartite or bipartite membership composition. Among the three best performing GSCSs are two with a tripartite membership structure (GRI, ISO14) and one with a bipartite membership structure (FSC), while at the same time among the less well performing GSCSs we also find both GSCSs with tripartite (MSC, KPCS, VPI, EITI) and bipartite membership (FLO).
- Members' representation: Turning to members' representation we see that the four top-ranking GSCSs have institutionalized a federal structure as ISO14 or a corporatist structure as the MSC or a combination of both as GRI and FSC. Having such a structure in place seems to be imperative for receiving high levels of procedural legitimacy. At the same time such a federal and/or corporatist structure by no means guarantees high levels of procedural legitimacy as FLO and EITI show. While FLO and EITI do have such structures, they do not receive equally good evaluations as the GRI, ISO14, FSC, and MSC. Moreover, and more im-

- portantly, all GSCSs which do not draw on federal and/or corporatist structures of representation and thus do not foresee any privileged representation for disadvantaged membership groups end up on lower ranks of the scale. With no special interest representation in place, the KPCS and VPI score comparatively low on procedural legitimacy.
- Final decision-making: Final decision-making by means of board decision does not appear harmful for high levels of legitimacy here. Considering the common conjecture that decision-making by way of consensus is generally seen as the most legitimate mode this finding comes as a surprise. Our data imply that board decisions or decisions made by majority voting can relate to even higher levels of legitimacy than decision-making derived from consensual agreement. The cases attributed the highest levels of procedural legitimacy, GRI, ISO14, FSC, and MSC – with the exception of the EITI – all have institutionalized either a mode of final decision-making by the GSCS board (GRI, MSC) or by voting among its members. Astoundingly, those GSCSs that conduct final decision-making by way of near consensus like the KPCS, FLO, or VPI are not ascribed better procedural legitimacy. Much to the contrary, they rather occupy lower ranks in regards to their level of procedural legitimacy⁶.
- Board installment: The three GSCSs that are assessed highest in regards to their procedural legitimacy, GRI, ISO14, and the FSC all have institutionalized modes of installing the board by membership groups. Self-appointment by the board seems to be a second best solution for GSCS board installment as the cases of KPCS and MSC indicate. Yet, while obviously a precondition for high levels of legitimacy, board installment through membership groups' appointment is by no means a guarantee for GSCSs' legitimacy as the cases of FLO, VPI, and EITI demonstrate. While they draw on similar modes of board installment as the GRI, ISO14, and the FSC, they score even behind MSC and KPCS in terms of their legitimacy. Board installment via membership appointment could be seen as a necessary albeit not sufficient condition for good procedural legitimacy.

⁶⁾ This finding also suggests that the often postulated trade-off between high legitimacy and low efficiency allegedly inherent to consensual decision-making does not exist. To the contrary, the decision making procedures which are considered legitimate, i.e. board or majority decision-making, are the ones which can be assumed to allow for more flexibility and thus more efficiency.

do's	do not's
(1) membership structure: multi-stakeholder	membership structure: only one stakeholder group
(2) members representation: federal and/ or corporatist	members representation: no special
(3) final-decision making: via board decision or members' majority voting	final-decision making: via consensus
(4) board installment: via membership groups	board installment: board self-appointment
(5) stakeholder consultation: open	stakeholder consultation: restricted

Table 7.1: Do's and do not's for procedural legitimacy

Stakeholder consultation: Our findings sustain the common conjecture according to which openness towards stakeholders helps GSCS procedural legitimacy. On average the GRI, FSC, and MSC which provide for institutionalized stakeholder consultations open to all stakeholders tend to score higher on procedural legitimacy than GSCS such as ISO14 and EITI which only provide for institutionalized consultations for selected stakeholders and which in turn tend to score higher than the KPCS and VPI which are very restrictive in their stakeholder consultation. In any case, having some sort of stakeholder consultation in place seems to be a best practice among GSCS; none of the selected GSCS does without stakeholder consultation.

The above analysis of the institutional characteristics associated with high levels of GSCS procedural legitimacy leads us to the following recommendations. To strengthen their procedural legitimacy GSCSs should (1) institutionalize a multi-stakeholder membership structure, (2) draw on a federal and/or corporatist membership representation, (3) allow final decision-making on the standard by way of board decision or majority vote among members, (4) foresee board installment by membership constituencies, and (5) rely on open procedures for stakeholder consultation. These are precisely the five institutional design features the by far most legitimate GSCS in our sample, the GRI, displays. In addition, with minor deviations these are also the design features the ISO14 and the FSC display tailing the GRI in terms of procedural legitimacy. All the other GSCSs in our sample ranked lower show clear deviations from these institutional characteristics for success. The KPCS and VPI do not have a federalist/corporatist interest representation, the MSC and KPCS draw on board installment by self-appointment, the KPCS, FLO, and VPI make final decisions by membership consensus, and the KPCS and VPI are very restrictive in terms of stake-holder consultations. In a nutshell, we recommend a comparatively hierarchical organization allowing, on the one hand, decisions made by a strong board (or by majority voting among members), but, on the other hand, provides open access to all relevant stakeholder groups.

Substantive Legitimacy

All eight GSCSs are also considered overall successful in terms of the legitimacy of their substantive standards. None of the GSCSs in our sample are evaluated below the arithmetic average of 3.00 here. Despite this generally positive assessment, there are also remarkable differences in the legitimacy of the selected GSCSs' standards. While the level of legitimacy ascribed by our experts to ISO14 (4.36), FSC (4.33), and GRI (4.25) standards is remarkably high, the legitimacy of VPI (3.00) standards is comparatively low with KPCS (3.70), MSC (3.62), EITI (3.60), and FLO (3.50) standards seizing middle ground (see table 8 below).

Which institutional characteristics are associated with GSCS success? What are the institutional characteristics that account for the variance of GSCS substantive legitimacy? First and foremost, we expect characteristics relating to procedures of standard development and standard revision to be important here. The following institutional characteristics are expected to be of particular relevance:

- Evaluation of standard: To begin with, the procedures for the evaluation of the standard are assumed to be relevant for its legitimacy. It is expected that the evaluation of standards on a regular basis is helpful for its acceptance, and thus its legitimacy, among relevant stakeholders. Three types of GSCS evaluation procedures can be distinguished: (a) non-institutionalized, irregular, i.e. "spontaneous", evaluation of the standard by the GSCS; (b) institutionalized regular evaluation of the standard by a body internal to the GSCS; (c) institutionalized regular evaluation of the standard by a body external to the GSCS. In our sample, only VPI has not institutionalized regular evaluation of its standard. While the bulk of "our" GSCSs draw on regular internal evaluation of their standards, only GRI envisages regular external standard evaluation.
- Initiating revision of standard: Beyond the procedures for standard evaluation, procedures for
 the revision of GSCS standards are likely to have
 an impact on the perception of GSCS substantive legitimacy. The way standard revisions can be
 initiated seems to be particularly relevant. (a) In
 some GSCSs like EITI and VPI, initiating revision

- of standards lies with the scheme management, i.e. the board of directors. (b) Other GSCSs give the authority to initiate standard revisions also to their members. This is the case in KPCS, for instance. (c) Yet, most GSCSs in our sample allow not only their management or their members to initiate the revision of their standards, but also other stakeholders.
- Actors preparing standard: Besides the actors initiating standard revision, the actors authorized with preparing the standard's content may also be of importance here. We observe three categories in regards to the actors responsible for preparing the GSCS standard. (a) In the context of GRI and FLO the responsibility lies with external technical experts. (b) In the context of MSC and EITI the task is given to the management. (c) ISO14, FSC, KPCS, and VPI draw on their members and stakeholders to prepare standards.
- State-of-the-art standard: Besides the institutional characteristics of the procedures for standard development we also expect features of the standard itself to be relevant for GSCS substantive legitimacy. We assume that whether a standard itself to be relevant for GSCS substantive legitimacy.

	1. evaluation of standard	2. initiating revision of standard	3. actors preparing standard	4. state- of-the-art standard	5. context- sensitivity	substantive legitimacy
ISO14	internal	stakeholders	members, stakeholders	medium (3,33)	global	4.36
FSC	internal	stakeholders	members, stakeholders	medium (3,60)	context- specific	4.33
GRI	autonomous body	stakeholders	technical experts	high (4,00)	context- specific	4.25
KPCS	internal	members	members, stakeholders	low (2,67)	global	3.70
MSC	internal	stakeholders	management	medium (3,40)	global	3.62
EITI	internal	management	management	low (2,83)	context- specific	3.60
FLO	internal	stakeholders	technical experts	medium (3,33)	context- specific	3.50
VPI	spontaneous	management	members, stakeholders	low (2,60)	global	3.00

Table 8: Institutional design and substantive legitimacy

dard reflects the current state-of-the-art – and can thus be considered technically sound – to be most important. For the assessment of this feature we asked the experts in our survey to give their account of whether the standard reflects the state-of-the-art. According to this evaluation, only the GRI standard can be seen as truly reflecting the state-of-the-art, with ISO14, FSC, MSC, and FLO standards following suit. By contrast, the technical quality of KPCS, EITI, and VPI standards is assessed as being comparatively poor.

Context-sensitivity of standard: Finally, the context-sensitivity of their standards may not only be important for GSCS impact, but may also play a role for GSCS legitimacy. As described above, there are standards that consider (a) geographic or (b) sector specifics. (c) Again other GSCSs do not acknowledge context specifics in their standards but rather only have one universal standard developed for global applicability. The standards of FLO, FSC, and EITI account for geographic specifics. The FLO also accounts for sector specifics of various products such as tea, fresh fruit or gold as does the GRI with its sector specifics of airport operations, financial services or mining and metals. ISO14, KPCS, MSC, and VPI are examples of "one-size-fits-all" global GSCS standards.

Which of these institutional characteristics are associated with GSCS success? What are the institutional characteristics for good substantive legitimacy?

- Evaluation of standard: To begin with, the VPI - assessed poorest in regards to its substantive legitimacy among our sample GSCSs – is the only case lacking regularly institutionalized evaluation procedures for its standard. This seems to suggest that institutionalized procedures for the evaluation of GSCS standards are important for their legitimacy. Moreover, as ISO14, FSC, and GRI are the three top-ranking GSCS in our sample, the analysis also suggests that external standard evaluations by autonomous bodies as in the GRI and internal standard evaluations by their own bodies as in ISO14 and FSC lead to equally good levels of legitimacy. It thus only seems to be important that there is a clearly institutionalized evaluation of their standards no matter whether this is conducted by a body internal or external to the GSCS.
- Initiating revision of standard: The analysis also suggests that it helps their substantive legitimacy

- when GSCSs have rather "open" procedures for the revision of standards in place. The most successful schemes in our sample, ISO14, FSC, and GRI, do not restrict the initiation of standard revisions to their members or their management; they rather allow next to management and members also stakeholders to initiate the procedures for the revision of standards. At the same time we see that EITI and VPI which restrict the initiation of standard revisions to GSCS management score rather low on their substantive legitimacy. This suggests that procedures for standard revision that are open to all interested stakeholders are supportive of a GSCS's substantive legitimacy.
- Actors preparing standard: In regards to the actors preparing revised GSCS standards, the analysis does not allow simple conclusions. However, it does indicate that reserving the responsibility of preparing revised (or entirely new) standards only to the GSCS management is not beneficial for the legitimacy of their standards. We see on the cases of MSC and EITI that making the preparation of revised standards an exclusive prerogative of the GSCS management is associated with lower levels of standard legitimacy. While certainly no guarantee – as the case of the VPI shows – delegating the preparation of standards to technical experts or allowing a broad participation of stakeholders in the process of preparing revised standards seem to be a relevant precondition for GSCS substantive legitimacy. This is underscored by the three top ranking GSCSs in our sample, i.e. ISO14, FSC, and GRI.
- State-of-the-art standard: While certainly not the only, and perhaps not even the most important characteristic, the technical quality of the GSCS substantive standard is apparently associated with good legitimacy records. In our sample the GSCSs with state-of-the-art standards such as, in particular, the GRI tend to do much better in terms of substantive legitimacy than the GSCSs such as VPI and EITI whose standards are considered to deviate considerably from the current state-of-theart. Against this general trend it strikes us as surprising that GSCSs whose substantive standards are attested medium quality in terms of the stateof-the-art can do very good in terms of their substantive standards' legitimacy. ISO14 and FSC are cases in point here.

do's	do not's
(1) evaluation of standard: regularly institutionalized	evaluation of standard: spontaneous
(2) initiating standard revision: by members , management and also stakeholders	initiating standard revision: restricted to members or management
(3) actors preparing standard: members and stakeholders or a body of technical experts	actors preparing standard: restricted management
(4) state-of-the-art standards	

Table 8.1: Do's and do not's for substantive legitimacy

Context-sensitivity of standard: As argued above, the context-sensitivity of standards is highly important for GSCS impact. Yet surprisingly, in regards to GSCS substantive legitimacy this institutional design feature does not seem to be equally relevant. This is astounding as one would think that context-sensitive standards are perceived as more legitimate than only global standards because they take local/national/regional specifics into account. Yet, our analysis rather shows that "one-size-fits-all" global standards such as ISO14 can do equally well as context sensitive standards such as FSC or GRI in terms of substantive legitimacy. At the same time we also see both global and context sensitive standards that are not seen as particularly legitimate. The relation between the context sensitivity of the GSCS standard and its substantive legitimacy seems to be highly contingent.

To sum up, the analysis of the institutional characteristics associated with high levels of GSCS substantive legitimacy results in the following recommendations. To strengthen the legitimacy of their substantive standards GSCSs should: (1) have a procedure which institutionalizes the evaluation of their standards on a regular basis; (2) have open procedures for standard revision which can be initiated not only by members and management, but by other stakeholders, too; (3) draw on the expertise of stakeholders or autonomous experts when preparing new standards in order to make sure (4) that standards are reflective of the current scientific and/or technical state-of-the-art. The three GSCSs considered to have the most legitimate standards, i.e. ISO14, FSC, and GRI, follow exactly this recipe for success. By contrast, apart from FLO, all other GSCSs in our sample with standards evaluated as less legitimate deviate from this recipe. They either

have no institutionalized evaluation of their standards as VPI or they give the GSCS management a too prominent role in the initiation of standard revisions and/or the preparation of new standards as the EITI and MSC do. In a nutshell, we recommend a GSCS design with procedures that institutionalize the evaluation and revision of their standards based on the expertise of stakeholders and technical experts rather than GSCS management.

Flexible Adaptation

Turning to flexible adaptation as a dimension of GSCS success, again on average, the experts consider all the GSCSs in our sample to have the capacity to adapt flexibly to changes in their environment. Considering that 3.00 constitutes the arithmetic average on a five-point scale between a fully satisfactory evaluation (5.00) and a fully non-satisfactory one (1.00) all GSCSs in our sample range relatively close to the average (3.56 – 2.35). None of the GSCSs are evaluated as complete failures in regards to their adaptive quality (below 2.00) and again none are evaluated as absolute success cases here (above 4.00). Yet, the level of adaptability attributed to different GSCSs differs considerably. There is a notable discrepancy between the GRI (3.56), FSC (3.28), MSC (3.11), and FLO (3.08) on the one hand and KPSC (2.35) on the other hand with EITI, ISO14, and VPI (2.93, 2.92, and 2.90) seizing middle ground (see table 9 below).

Which institutional design characteristics are associated with flexible adaptation? Which institutional characteristics allow GSCSs to adapt flexibly to changes in their environment? We expect the following three institutional design features to be relevant:

- Secretariat: A well designed secretariat is assumed to be related to a GSCS's ability to adapt flexibly to its environment. More specifically, we assume that the authority of the secretariat to act with some degree of independence from GSCS members to sustain scheme adaptability. We thus distinguish between GSCSs with secretariats that (a) have the capacity to take on substantive tasks and (b) GSCSs with secretariats whose authority is strictly limited to purely administrative functions. These GSCSs can further be separated from GSCSs that (c) have no secretariat of their own. While the KPCS is the only example of the latter, all the other GSCSs in our sample do have their own secretariat. In case of ISO14 and VPI these are limited to administrative tasks while the secretariats of GRI, FSC, MSC, FLO, and EITI may also take on more substantive tasks.
- Final decision-making: The mode of making final decisions was relevant for GSCS legitimacy as we argued above. In addition, it may also be decisive for GSCS flexible adaptation. It can be expected that the GSCS decision-making procedures with less veto-points allow for more flexible adaptation of GSCS standards. Accordingly we distinguish, as outlined above, final decisions in GSCSs that are made (a) by near consensus among members, (b) by majority voting among members, or (c) by board decision. KPCS, FLO, and VPI draw on decision making by consensus, ISO14 and FSC allow for majority decisions and GRI, MSC, and EITI give their boards the authority to make final decisions.

• Scheme evaluation: Finally, the third institutional characteristic we expect to be important for GSCS flexibility concerns the mechanisms for evaluating the scheme per se – and not just the schemes' substantive standard. In parallel to the procedures for the evaluation of the standard these more fundamental evaluations can be (a) not institutionalized at all, (b) institutionalized and carried out by an internal body, or (c) institutionalized and carried out by an external body. While none of the GSCSs in our sample draws on an external evaluation, GRI, FSC, MSC, EITI, VPI, and KPCS have internal evaluation procedures in place. FLO and ISO14, by contrast, trust in non-institutionalized, i.e. spontaneous scheme evaluations.

Which institutional characteristics are associated with GSCS flexibility? Which institutional characteristics account for the varying levels of flexible adaptation attributed to, for instance, GRI and VPI on the opposing ends of the table?

Secretariat: As expected, the analysis of the GSCSs in our sample underlines that having a secretariat that is ascribed authority to fulfill also substantive functions next to merely administrative tasks supports a GSCS's ability to adapt flexibly to a changing environment. All the GSCSs that are evaluated highly in regards to their ability of flexible adaptation, i.e. GRI, FSC, MSC, FLO, and EITI, have a secretariat that takes on substantive tasks for the scheme. Moreover, all the GSCS with a secretariat with administrative functions only, i.e. ISO14 and VPI, score better than the GSCS without a permanent secretariat, namely KPCS. The correlation is thus quite evident: The lesser the ca-

	1. secretariat	2. final decision- making	3. scheme evaluation	flexible adaptation	
GRI	substantive	board decision	internal	3.56	
FSC	substantive	members' voting	internal	3.28	
MSC	substantive	board decision	internal	3.11	
FLO	substantive	near consensus	not institutionalized	3.08	
EITI	substantive	board decision	internal	2.93	
ISO14	administrative	members' voting	not institutionalized	2.92	
VPI	administrative	near consensus	internal	2.90	
KPCS	no permanent	near consensus	internal	2.35	

Table 9: Institutional design and flexible adaptation

do's	do not's
(1) secretariat with substantive tasks	no secretariat
(2) final-decision making: via board decision or members' voting	final-decision making: via consensus
(3) scheme evaluation: institutionalized	no scheme evaluation

Table 9.1: Do's and do not's for flexible adaptation

pacity of the secretariat, the poorer the scheme's ability to adapt flexibly to change.

- Final decision-making: Not surprising but nevertheless important, final decision-making by way of board-decision or membership voting turns out to be beneficial for flexible adaptation of GSCSs. GRI, FSC, and MSC top the table and all make final decisions on their standards by way of board decision or majority voting. By contrast, VPI and KPCS at the lower end of the flexibility table rely on decision-making by membership consensus. Only the FLO is able to adapt flexibly to changing circumstances despite the consensus requirement of its decision-making procedures. Against the background of our finding above that board decisions and majority voting also support GSCS procedural legitimacy we may conclude that the assumption of a trade-off between legitimacy and flexibility seems to be wrong in the context of GSCSs. Good legitimacy and good flexibility seem to go together and may even strengthen each other.
- Scheme evaluation: While far from sufficient as the cases of EITI, VPI, and especially KPCS show, some form of institutionalized procedure for the evaluation of the scheme appears to be helpful for a high level of flexible adaption as "the top three" GRI, FSC, and MSC on this dimension indicate. This finding is also supported by the comparatively low level of flexible adaptation of GSCSs without institutionalized evaluation procedures such as FLO and ISO14 which score comparatively low on flexible adaptation. Then again, the relatively poor ranking of the EITI, VPI and KPCS flexible adaptation despite internally institutionalized scheme evaluation suggest that other factors are more decisive for success on this dimension.

Overall, the above analysis leads to the following straightforward recommendations. In order to adapt flexibly to changes in their environment GSCSs should: (1) Have a secretariat with not only admi-

nistrative, but also substantive tasks; (2) allow for final decisions on standards to be made either by the GSCS board or by majority voting among the GSCS members; and (3) institutionalize procedures for evaluating the scheme, i.e. its institutional design. The GSCSs – GRI, FSC, and MSC – with precisely this institutional design are attributed higher levels of efficiency in terms of flexible adaptation. At the same time, the GSCSs asserted lower levels of organizational flexibility, i.e. ISO14, VPI, and KPCS, deviate from this institutional design in one way or another. In the interest of GSCS flexibility we thus recommend a rather hierarchical structure with a strong secretariat, a strong board (or majority voting) with the burden of regular self-evaluation of its institutional design.

Financial Efficiency

If we now consider the financial efficiency and sustainability of the GSCSs in our sample we see an outstanding positive evaluation by our experts for the GRI (4.10) and very positive evaluations for ISO14 (3.90) and the MSC (3.73), while the evaluation of the KPCS is rather poor (2.58) with FLO (3.57), FCS (3.44), EITI (3.23), and VPI (3.20) scoring somewhere in between, but still above the arithmetic average of 3.00 (see table 10 below).

Which institutional characteristics are associated with a GSCS sustainable financial basis? Three characteristics may be important in this respect:

Financing: Clearly, the mode of financing, more specifically, the source of the GSCSs' financing can be expected to be of relevance for financial efficiency. GSCSs can accrue finances from various sources. Commonly, (a) voluntary donations constitute one source of income. Almost all of the cases in our sample display this institutional characteristic, all but VPI. (b) GSCSs may have institutionalized a source of income that builds on regular contributions of its members. ISO14,

FLO, FSC, and VPI have membership fees. (c) Another possible source of revenues may be generated through marketing activities as in GRI, ISO14, MSC, FLO, and FSC. Combinations of two or more sources are also possible as many cases show.

- Industry scale: Besides the sources of financing the scale of industry the GSCS addresses may also turn out to be of relevance for GSCS financial efficiency. GSCSs can address either (a) large-scale industry like EITI and VPI, or (b) rather small-scale industry like FLO. (c) Many GSCSs simply don't specify the scale of industry like GRI, ISO14 or MSC but rather use a universal standard allegedly applicable to all scales.
- Consumer visibility: Finally, the visibility of the GSCS certificate may also affect the financial efficiency, because it may be easier to market certificates that are visible to consumers. Three levels of visibility can be distinguished: (a) GSCS certificates can be visible to consumers such as the FLO, MSC, or FSC labels. (b) In sporadic cases they may also be included in other consumer visible schemes such as FSC in green building certificates. (c) Many GSCSs have a certificate which is only for the eyes of the business community

involved in a supply chain or for investors such as in GRI, ISO14, EITI, VPI, or also KPCS.

Which institutional characteristics are associated with good financial efficiency? Which stand for success bere?

- Mode of financing: The good financial efficiency of the GSCSs at the top of the table, GRI, ISO14, MSC, FLO, and FSC appears to relate to their ability of accruing revenues through their marketing activities, also. Distinctly, EITI, VPI, and KPCS only build their financing on donations or contributions and are accordingly on the lower end of the table. Donations or contributions may be helpful for financing as the GSCSs ascribed good financial efficiency also rely on these modes of financing in their operations. But, financing by way of marketing appears to be the decisive institutional design characteristic for good financial efficiency as it is prevalent among the more successful GSCSs and absent among the less successful GSCSs.
- Industry scale: The relation between the scale
 of industry, the standard addresses, and financial efficiency is far from clear. While we expected
 GSCSs that specifically address primarily large
 scale industry to be better off financially because
 large scale industry has more spending power, our

	1. mode of financing	2. industry scale	3. consumer visibility	financial efficiency
GRI	donations/marketing	no specification	business to business	4.10
ISO14	donations/contribu- tions/ marketing	no specification	business to business	3.90
MSC	donations/marketing	no specification	visible	3.73
FLO	donations/contribu- tions/ marketing	small	visible	3.57
FSC	donations/contribu- tions/ marketing	large/small	visible	3.44
EITI	donations	large	business to business	3.23
VPI	contributions	large	business to business	3.20
KPCS	donations	large/small	business to business	2.58

Table 10: Institutional design and financial efficiency

do's	do not's
1. mode of financing: marketing	financing: only donations or contributions
2. consumer visible standard	

Table 10.1: Do's and do not's for financial efficiency

cases in point, EITI and VPI do not confirm this conjecture. The most successful GSCSs in terms of financial efficiency, GRI, ISO14, and MSC do not specify which scale of industry they are primarily addressing but develop standards for, in theory, universal application irrespective of the size or scope of the implementing entity.

• Consumer visibility: We also expected consumer visible schemes like MSC, FLO, and FSC to be more apt to sustain their financial basis. In fact, our analysis does confirm this conjecture as MSC, FLO, and FSC are ascribed good levels of financial efficiency. Likewise, and even more significantly, consumer visible standards are absent among the GSCSs at the lower end of the financial efficiency table. However, the results on GSCSs with business to business standards are ambiguous as they are attributed both top levels of financial efficiency – GRI and ISO14 are cases in point – and also very low levels of financial efficiency, exemplified especially by the KPCS.

In conclusion, we clearly recommend (1) a mode of financing that relies not only on third party donations and member contributions, but also on marketing GSCS standards or certificates. Also (2) a standard that leads to a certificate visible to consumers seems to be beneficial for good financial sustainability. These institutional characteristics are prevalent among GSCSs with better records of financial efficiency and lacking among the GSCSs with poorer records. Consequently, a diversified financial base built on a number of modes of financing with special attention to generating revenues through marketing activities is imperative for financial efficiency.

Conclusion: Scenarios for the RCM

Our analysis has shown that specific institutional configurations suggest themselves for certain notions of success (see table 11). In regards to effectiveness, a system of conformity assessment relying primarily on third parties and not on the main standard setting body is recommendable for good compliance records. In terms of impact, precisely defined stringent standards that acknowledge context specifics and provide strong incentives for their addressees are associated with success. For GSCS procedural legitimacy we see a comparatively hierarchical organization with a powerful board balanced by institutionally ensured, inclusive stakeholder consultation as advisable. Success conceived as substantive legitimacy, in turn, is associated with a standard development that has institutionalized mechanisms for evaluating and revising the standards and acknowledges the expertise of stakeholders and technical experts rather than GSCS management when preparing the standards. For flexible adaptation, a hierarchical structure with a strong secretariat and a strong board (or majority voting) with the burden of regular self-evaluation of its institutional design are seemingly necessary. Last but not least, for financial efficiency, a diversified financial base built on a number of modes of financing with special attention to generating revenues through marketing activities suggests itself.

Now that we have pinpointed the institutional characteristics most promising for GSCSs' success, we develop three scenarios in which these institutional configurations can be implemented. In scenario (1) an international organization functions as a prominent patron of the GSCS. In scenario (2), the GSCS operations are primarily borne by national governments. Finally, in scenario (3) first and foremost private actors from business and civil society collaborate in setting up and running the GSCS. We argue for a combination of all three scenarios for the BGR mineral certifi-

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cation schemes. The following analysis of each scenario paves the way for the argument.

In scenario (1) an international organization (IO) promotes the launching and the on-going activities of the GSCSs. Out of our sample, the collaboration between the United Nations Environment Programme and GRI is a point in case for this scenario. Similarly, WWF took on a leading stance in promoting the FSC and MSC. IO backing can provide the GSCSs with a well developed network of experts, policy makers, governmental representatives, business contacts etc., from the start. This network can be helpful for the general popularity and overall acceptance of the GSCS and also in regards to sustaining a financial basis, especially in the fledgling stages of the GSCS lifespan. On the other hand, IOs bear the restriction that they, alone, seldom have the contextual expertise when it comes down to local implementation.

In scenario (2), governments take on a dominant stance either in the GSCS procedures such as developing the standard, or as targets implementing the requirements of the standard, or both. National governments play a role in the context of most GSCSs, and the launching of several GSCSs would not have been possible without national governments' support in political and financial respect. A pronounced dominant stance of public authority in GSCSs, however, puts the GSCS core objective of problem-solving at risk due to the powerful norms of sovereignty and diplomacy in intergovernmental relations. When

	compliance (conformity assessment)	impact (stringency of standards)	procedural legitimacy (organizatio- nal setup)	substantive legitimacy (standard de- velopment)	flexible adaptation (organizatio- nal setup)	financial efficiency (mode of financing)
(1)	auditing: via third party	subject of standard: process and performance and origin	membership structure: multi-stake- holder	evaluation of standard: regu- larly institution- alized	secretariat with substantive tasks	mode of financing: marketing
(2)	accreditation: via third party	ambition: minimum and progress and maximum	members representation: federal and/or corporatist	initiating stan- dard revision: by members, management and also stakeholders	final decision-making: via board decision or members' voting	consumer visible standard
(3)	monitoring: via on-site inspec- tions ("police patrol")	precision: measurable rules	inal decision-making: via board decision or members' majority voting	actors preparing standard: members and stakeholders or a body of technical experts	scheme evalu- ation: institu- tionalized	
(4)	dispute-settle- ment: via third party	context- sensitive standard	board install- ment: via membership groups	state-of-the- art standards		
(5)	enforcement: via withdrawal of privileges	incentives: reputational and legal and/ or price premi- ums	stakeholder consultation: open			

Table 11: Institutional configurations for success

sovereignty issues and diplomatic affairs prominently surface in the context of GSCSs or any governance regime, this may blur the GSCS focus and thus be detrimental to its problem-solving capacity.

Finally, in scenario (3) it is neither IOs nor national governments that take the lead in the GSCSs making and operations. Rather private actors from civil society and business join forces in the conviction that they constitute the most legitimate bond for effectively reaching the objectives of the GSCS. This constellation may also be chosen after attempts of a state lead standard and certification scheme already failed as in the FSC context. Indeed, private actors are not similarly affected by the diplomatic or sovereignty-related boundaries depicted in scenario (2). But then again, the exclusion of public involvement may also deprive the GSCS of benefits in terms of legitimacy, material and human resources or networking advantages. Furthermore, neglecting public authorities in GSCSs is likely to even curb the GSCS long-term effectiveness because governmental behavior in form of bad governance is often part of the problem to be solved.

Which scenario should the BGR build on when further developing its respective mineral certification systems in the Great Lakes Region? Both ongoing projects, CTC and RCM are well placed in scenario (1) in two respects. First, each certification program has a function within the framework of the OECD Due Diligence Guidance (OECD DDG) for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas7. CTC as well as RCM take on an important role within the early steps regarding upstream operations of the OECD Due Diligence Guidance, CTC especially in Step 1 + 2: Management systems + Identify and assess risks, RCM in Step 1 + 2, and 3: Respond to identified risks8. Second, the support of the International Organization, ICGLR, is also ensured in the context of both cases. Despite ICGLR being a relatively young organization with restricted membership to 11 countries of Sub-Sahara Africa it serves as a partner on equal footing to the OECD and the UN Group of Experts on the DRC in implementing the OECD DDG9. While the ICGLR may not have the same standing as the patrons of other GSCSs such as UNDP or WWF both active since the 1960s with a global presence in more than 100 countries, the OECD certainly does. ICGLR serves as the link between RCM and CTC to the OECD¹⁰. Considering the benefits of IO support as described above this is a good precondition.

Moving on to scenario (2), we also recognize this constellation in the context of RCM and CTC as target member states have ownership over the implementation of the certification process. On the one hand, this may be good for legitimacy-related reasons on behalf of the involved national governments and due to their capacity to provide for context-specific expertise most probably lacking in IOs such as the OECD. On the other hand, this may also be problematic as diplomacy- and sovereignty-orientated concerns of the individual states risk to predominantly interfere with the problem-solving objective of the mineral certification systems.

Out of the three scenarios, CTC and RCM are farthest from scenario (3) as member states are ascribed the prime responsibility for implementing the chain of custody tracking mechanism within their borders. While member states may delegate this task also to nonstate actors¹¹, the inclusion of non-state actors in the process is not envisaged on an equivalent basis as it is in regards to IOs and national governments. Approaching scenario (3) would require a fundamental redistribution of influence among the actors involved, depriving governmental development cooperation and ICGLR member states of their dominance in the mechanism to the favor of non-state actors. Scenario (3) may indeed not be the most desirable for the ongoing mineral certification systems in the Great Lakes Region at this point because downscaling the responsibilities of the ICGLR member states may hazard their support for the mechanism, which would be detrimental for their legitimacy and subsequently, their effectiveness.

Due to the shortcomings of each scenario on its own, we conclude that none of these three scenarios suggests itself unconditionally for the mineral certification projects supported by the BGR. We rather argue for combining the benefits of all three scenarios in the following manner. In a nutshell, we recommend the CTC and the RCM to maintain the support and patronage of the ICGLR and to further build on the ICGLR as the stepping stone to the system of the OECD Due Diligence Guide. With the help of the OECD frame-

⁷⁾ BGR 2012

 $^{^{8)}}$ Presentation, day 1, 4^{th} meeting of the ICGLR-OECD-UN GoE multi-stake-holder forum

⁹⁾ ICGLR-OECD-UN 2011

¹⁰⁾ http://www.undp.org/content/undp/en/home/operations/about_us.ht-ml; http://wwf.org/ (January 25, 2013)

¹¹⁾ ICGLR: Mineral Tracking and Certification Scheme, http://www.oecd. org/investment/guidelinesformultinationalenterprises/47892582.pdf (November 9, 2012)

work, ICGLR can tie in national governments as well as non-state stakeholders from private business and civil society in a balanced multi-stakeholder composition. By doing so target member states' ownership can be maintained and their sovereignty remains unaffected. At the same time, civil society and private business can step in the CTC respectively RCM implementation process as watchdogs controlling the leeway of target member states, when necessary. Complementing ICGLR member states' authority with institutionalized opportunities for affected, non-state stakeholders to participate in the certification activities in a multi-stakeholder composition promises to pave the way for successful certification in mineral supply chains.

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